



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30308

JUL 31 1980

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DEPT. OF
ENVIRONMENTAL REGULATION

REF: 4AH-AF

Mr. Steve Smallwood, Chief
Bureau of Air Quality Management
Division of Environmental Programs
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Smallwood:

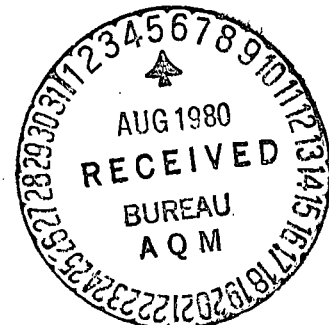
Enclosed for your review and comment are the Public Notice and Preliminary PSD Determination for the Estech General Chemicals Corporation's proposed new phosphate rock mining facilities in the town of Duette in Manatee County, Florida. The public notice will appear in a local newspaper, Bradenton Herald, in the near future.

Please let my office know if you have comments or questions regarding this determination. You may contact Kent Williams of my staff at 404/881-4552 or Bob Bakshi of TRW Inc. at 213/535-1544. TRW Inc. is under contract to EPA, and TRW personnel are acting as authorized representatives of the Agency in providing aid to the Region IV PSD review program.

Sincerely yours,

Tommie A. Gibbs, Chief
Air Facilities Branch

Enclosures:



PUBLIC NOTICE

A new air pollution source is proposed for construction by the Estech General Chemicals Corporation in the town of Duette in Manatee County, Florida. Emitting facilities include a boiler, phosphate rock dryers, storage silos and product loading stations.

The proposed construction has been reviewed by the U.S. Environmental Protection Agency (EPA) under Federal Prevention of Significant Deterioration (PSD) Regulations (40 CFR 52.21), and EPA has made a Preliminary Determination that the construction can be approved provided certain conditions are met. A summary of the basis for this determination and the application for a permit submitted by Estech are available for public review in the office of the clerk of Circuit Courts in the Manatee County Courthouse located in Bradenton, Florida.

The allowable emissions of particulate, nitrogen oxides and sulfur dioxide are 125.95 tons per year, 284.73 tons per year and 44.4 tons per year, respectively. Increment analysis for particulates indicated increment consumption of 8 percent of the allowable 19 micrograms per cubic meter annual mean and 35 percent of the 37 micrograms per cubic meter 24-hour allowable limit. Since the allowable emissions of sulfur dioxide are less than 50 tons per year, 1000 pounds per day and 100 pounds per hour, no increment analysis was required for sulfur dioxide. Dispersion modeling performed by Estech General Chemicals Corporation showed "insignificant" impacts as defined in the Federal PSD Regulations.

Any person may submit written comments to EPA regarding the proposed construction. All comments, postmarked not later than 30 days from the date of this notice, will be considered by EPA in making a Final Determination regarding approval for construction of this source. These comments will be made available for public review at the above location. Furthermore, a public hearing can be requested by any person. Such requests should be submitted within 15 days of the date of this notice. Letters should be addressed to:

Mr. Tommie A. Gibbs, Chief
Air Facilities Branch
U.S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30308

APPLICATION PSD-FL-036
PRELIMINARY DETERMINATION STUDY

I. Applicant

Estech General Chemicals Corporation
410 Cortez Road West
Bradenton, Florida 33507

II. Location

The applicant proposes to construct rock mining facilities in the town of Duette in Manatee County, Florida. Duette is located approximately 19 miles east of the town of Parrish, off highway 62. The various facilities will be located at the following UTM coordinates: Boiler 389.18E and 3047.63N; Rock Dryers 388.95E and 3047.28N; Silos 388.72E and 3047.32N; and product Loading Stations 388.73E and 3047.18N.

III. Project Description

The proposed source is a phosphate rock mine and associated processing plant. Air pollution emitting facilities at this source include the following:

- Boiler (3.99 MMBTU/hr)
- Two fluid bed dryers (295 tons material input/hr)
- Eight dry rock storage silos (3750 ton storage capacity)
- Two dry rock loading stations (200 ton bin capacity)

The applicant proposes to use a fuel oil fired 100 horsepower package boiler to generate steam for heating purposes. Heat is required to maintain floatation reagents at proper temperatures for process use and to preheat No. 6 fuel oil so that it can be pumped to the two phosphate dryer oil burners. The boiler will be fired with low sulfur distillate fuel having a nitrogen content of 0.4 percent.

The two fluidized bed dryers will dry phosphate rock from about 13 to 2 percent moisture. (The dryers remove moisture by passing heated air through the fluidized bed of rock). The air is heated by combustion of fuel oil in the air stream directly before entering the fluidized bed. Large size, heavy components of product exit the fluidized bed dryer to a product conveyor and the lighter components are carried along with the fluidizing air to product recovery cyclones which remove economically

recoverable product from the gas stream. Product recovered by the cyclones is also discharged to the product conveyor. The remaining hot gas is cleaned in a wet scrubber and vented to the atmosphere.

The eight Dry Rock Storage Silos are designed to hold production output for relatively short periods of time and supply product to the Dry Rock Loading Stations on demand. The input rate is consistent with production of the two phosphate rock dryers and the output rate designed for optimum and effective shipment of product. Fugitive emissions generated during product transfer and silo loading are captured by hoods and collected in a silo loading scrubber.

The two dry rock loading stations are each designed with a compartmented 100 ton loading bin. Each bin is designed to discharge through eight spouts into the hatches of a 100 ton railroad hopper car. The bin loading collection systems exhaust into a single wet scrubber serving both loading bins. The rail car loading spouts are designed to enclose the car hatch openings and include necessary air inflow and dust capture features to prevent fugitive dust release during the car loading operations. A single wet scrubber is designed to serve both car loading dust collection systems on an alternating basis.

IV. Source Impact Analysis

The proposed construction has the potential to emit greater than 100 tons per year of TSP, SO₂ and NO_x as shown in Table 1. Therefore, in accordance with the provisions of Federal Regulation 40 CFR 52.21 promulgated 19 June 1978, Prevention of Significant Deterioration (PSD) review is required for these pollutants. It should be noted that the application was reviewed under the Partial Stay of PSD Regulation, published February 5, 1980 and the proposed revisions of the PSD regulations referenced in that partial stay. It was determined that the exemption outlined in the partial stay does not apply and that the proposed source is subject to review under existing PSD regulations because it has greater than 100 TPY enforceable post-control TSP and NO_x emissions.

Full PSD Review includes an analysis of the following:

- air quality impacts (National Ambient Air Quality Standards (NAAQS) and PSD increments),
- monitoring data,
- Best Available Control Technology (BACT),

TABLE 1. EMISSIONS SUMMARY

Facilities	POTENTIAL EMISSIONS TONS PER YEAR								ACTUAL EMISSIONS TONS PER YEAR							
	Fugitive Dust	Fugitive TSP	TSP	SO ₂	CO	HC	NO _x	Fluoride	Fugitive Dust	Fugitive TSP	TSP	SO ₂	CO	HC	NO _x	Fluoride
Package Boiler	--	--	0.25 ^a	12.4 ^a	0.62 ^b	0.12 ^b	9.94 ^c	--	--	--	0.25 ^a	12.4 ^a	0.62 ^b	0.12 ^b	2.73 ^c	--
Phosphate Rock Dryers (2)	--	--	45,486 ^d	904 ^c	28.8 ^e	5.76 ^e	418 ^c	<100	--	--	85.4 ^c	32.0 ^c	28.8 ^e	5.76 ^e	282 ^c	0.15 ^c
Dry Rock Storage	--	--	10,028 ^d	--	--	--	--	--	--	--	28.7 ^c	--	--	--	--	--
Dry Rock Loading Station	--	--	4,095 ^d	--	--	--	--	--	--	--	11.6 ^c	--	--	--	--	--
Mining and Reclamation	43.1 ^c	--	--	--	--	--	--	--	43.1 ^c	--	--	--	--	--	--	--
Wet Phosphate Rock Storage Pile	--	77.2 ^c	--	--	--	--	--	--	--	47.5 ^c	--	--	--	--	--	--
TOTAL	43.1	77.2	59,609.3	916.4	29.42	5.88	427.94	<100	43.1	47.5	125.95	44.4	29.42	5.88	284.73	0.15

- a. Calculated by applicant in the FDER construction permit application section of the PSD application.
- b. Calculated by using emission factors given in Table 1.3-1 of AP-42.
- c. Calculated by applicant in the BACT application section of the PSD application.
- d. Calculated from data supplied by applicant in the FDER construction permit application section of the PSD application.
- e. Listed by applicant in Air Quality Resource Document section of the PSD application.

- growth impacts,
- visibility soils, and vegetation impacts,
- Class I area impacts.

However, the applicant proposes installing wet scrubbers, which will reduce the actual SO₂ emissions to a total of 44.4 tons per year (refer to Table 1). Under 40 CFR 52.21 (k), major modifications with allowable emissions less than 50 tons per year, 1000 pounds per day, or 50 pounds per hour, as appropriate, are exempted from the requirement of NAAQS and increment analyses, monitoring data, growth impact analysis and visibility, soils and vegetation analyses, unless the allowable emissions from the source would impact a Federal Class I area or an area in which the PSD increments are known to be violated. Furthermore, under 40 CFR 52.21 (j), no such source need apply BACT to get a PSD permit but must demonstrate that the source meets all applicable emission limitations under SIP and all applicable emission standards and standards of performance under 40 CFR part 60 and part 61. These exemptions apply to emissions of SO₂ only; full PSD review is required for TSP and NO_x.

A. BACT Analysis

TSP

Total suspended particulate emissions are capable of being generated from all of the facilities proposed for construction (refer to Table 1). Since TSP emissions are greater than 100 tons per year under 40 CFR 52.21 (j) these facilities are required to apply best available control technology for TSP.

The applicant proposes to utilize two Ducon wet-venturi-absorber scrubbing systems to collect particulate and gaseous pollutants from the phosphate rock dryers. Particulate emissions from transfer points are proposed to be enclosed and eventually vented to a dust collection system. The captured emissions from the dryers will be exhausted to a Centrifield wet scrubber.

The design outlet rate for the Ducon scrubbing system as indicated by the supplier is 0.022 gr/DSCF. Based on an estimated inlet concentration of 12.0 gr/DSCF this is equivalent to a collection efficiency of 99.82 percent for the system. The design outlet rate for the Centrifield scrubber is listed as 0.022

gr/DSCF by the manufacturer of the control device. Based on an estimated inlet grain loading of 7.8 gr/DSCF this is equivalent to a collection efficiency of 99.71 percent for the Centrifield scrubber. The total particulate emission from the phosphate rock dryers using the aforementioned emission rates is estimated to be 22.93 lb/hr or 85.4 tons/yr (refer to Table 1). This emission rate compares favorably with the 0.04 lb TSP per ton of material proposed New Source Performance Standard for phosphate rock dryers. Using the above emission rate, particulate emissions from the proposed phosphate rock dryers for 590.3 tons/hr of material processed (wet basis) are 23.61 lbs/hr.

Also proposed for construction is a dry rock storage facility consisting of eight storage silos with a storage capacity of 3,750 tons. The silos will be arranged in two bays of four silos each centered over two enclosed reclaim belt conveyors which load the rail car transfer stations. An enclosed dry product conveyor of 600 tons per hour capacity (from the rock dryers) will deliver dry rock to a distribution chute and discharge to an enclosed reversible conveyor belt. The reversible belt will supply either one of two ~~tripper conveyors which traverse the length of each bank of silos.~~ All transfer points in the loading system that lead to the tripper conveyors are proposed to be enclosed with exhaust hoods to prevent fugitive TSP emissions. Silo discharge gates to the reclaim conveyors will also be enclosed with fugitive TSP collection hoods to prevent escape of particulate matter at the base of the silos. All active transfer points will be enclosed and ducted to scrubbers. A schematic of the silo storage and reclaim fugitive dust control system is given in Figure 1. The outlet grain loading for the Centrifield scrubbers as listed by the manufacturer is 0.022 gr/DSCF. The collection efficiency of the Centrifield scrubbers is estimated to be greater than 99.7 percent. This is comparable to the collection efficiencies for other control devices such as fabric filters and centripetal vortex contact scrubbers.

The two dry rock loading stations at Duette Mine are proposed to be installed with wet Centrifield scrubbers. Each dry rock

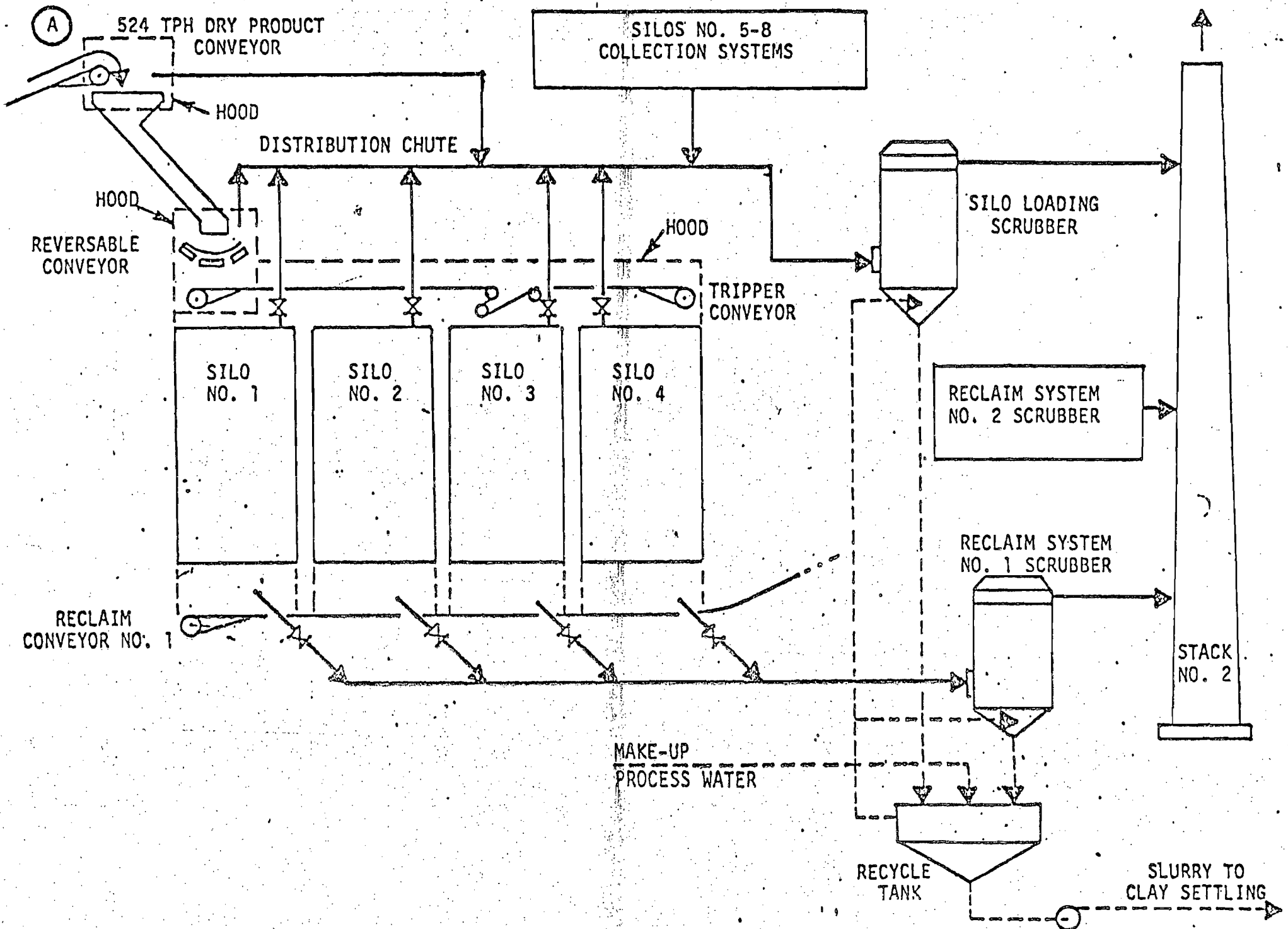


Figure 1. Silo storage and reclaim fugitive dust control systems

loading station is designed to consist of a compartmented 100 ton washing bin on load cells as illustrated in Figure 2. The bins will be loaded with enclosed, variable speed conveyor belts through hooded hoppers and a distribution chute system. Each bin will discharge through eight spouts into the hatches of a 100 ton railroad hopper car. Fugitive dust emissions at all transfer points are designed to be captured by dust collection systems. The captured emissions are ducted to Centrifield wet scrubbers. The outlet grain loading of the scrubbers is listed as 0.022 gr/DSCF by the manufacturer. The collection efficiency of the scrubbers is estimated to be 99.72 percent. This is comparable to the collection efficiencies of 99.7 percent listed for alternative control devices such as the fabric filter and the wet centripetal vortex contact scrubber.

The oil fired package boiler will use distillate fuel as a means of limiting TSP emissions. The boiler TSP emissions are estimated to be 0.057 lb/hr or 0.25 tons per year. EPA agrees that this rate meets BACT for TSP for the boiler and no additional controls are required.

The applicant estimates that mining and reclamation activities will disturb approximately 3 acres of land on any given day. However, since the material handled is in a relatively moist condition at the time it undergoes active disturbance, a limited amount of TSP emissions will be generated. As the mining and reclamation activities constantly move into new areas, disturbed ground surfaces are left behind which contribute to fugitive dust emissions. It is estimated that this would contribute up to 43.1 tons per year of fugitive dust emissions. Control measures such as water spraying in cases like these are not quite effective due to accessibility problems of these areas by light vehicles and the subsequent generation of fugitive dust by these vehicles even if such spraying is possible. A proposed long term measure suggested by the applicant is the introduction of interim vegetative cover, i.e., grass, as soon as practical after completion of activities which disturb the ground surface. The new vegetation will encourage establishment of more permanent natural grasses and plants and help to

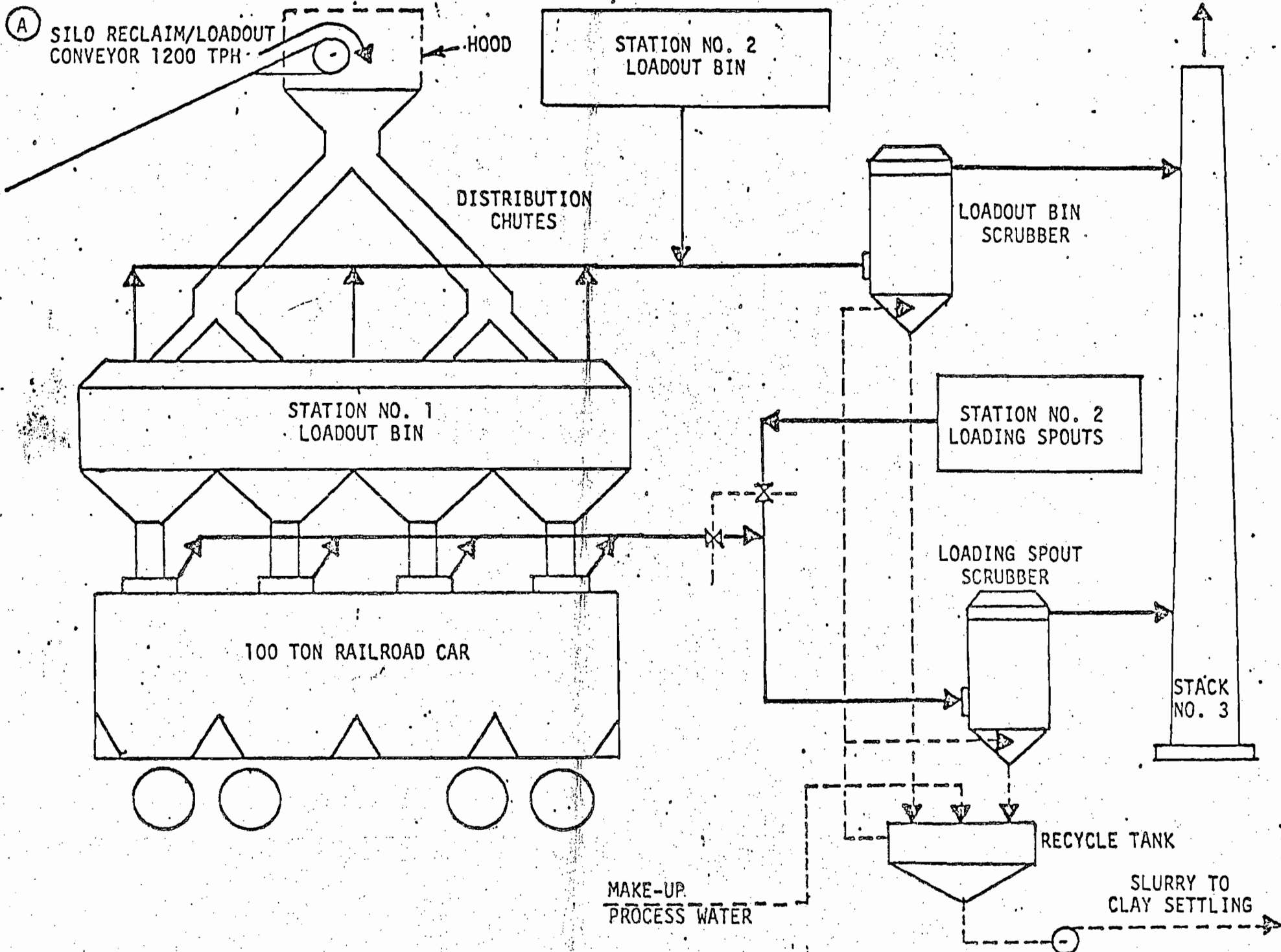


Figure 2. Dry rock loading fugitive dust control system.

reduce emissions from these areas to levels approximating preconstruction conditions.

The storage piles at Duette Mine will be loaded with a movable double wing stacker. The material loaded to the pile will essentially be saturated with excess moisture. The inherent nature of the storage material is expected to contribute to an overall estimated control efficiency of 38.4 percent. This estimate was based on emission factors developed from the expanded methodology provided in Table 2 , Technical Guidance Document EPA 450/3-77-010. No external controls are projected to be required.

NO_x

The two primary sources of nitrogen oxide emissions are 1) the Oil Fired Package Boiler and 2) the two phosphate rock dryers. Nitrogen oxides generated by mobile sources such as haul trucks, etc., are not subject to PSD review.

The control of nitrogen oxide emissions in boilers is generally performed by combustion modification techniques. However, recently some developmental work has been done on flue gas treatment techniques. The applicant however proposes to utilize neither one of the above techniques to reduce NO_x emissions from the 3.99 MMBTU/hr package boiler but intends to rely solely upon the use of low nitrogen distillate fuel oil (<0.4 percent nitrogen by weight in fuel oil) instead of residual fuel oil containing 0.4 percent nitrogen by weight. Estimates indicate the use of distillate fuel oil will reduce NO_x emissions by as much as 72.5 percent.

The control technique proposed for the reduction of NO_x emissions from the phosphate rock dryers is use of low nitrogen (0.3 percent nitrogen weight) Number 6 residual fuel oil and low NO_x burners. Also, some control of NO_x is expected when the dryer off-gases pass through wet scrubbing devices that have been designed for efficient removal of sulfur dioxide. Since no estimates are available for reduction in NO_x emissions obtained by the latter two techniques, a total of 32.6 percent reduction in NO_x emissions was estimated due to the use of low nitrogen fuel (refer to Table 1).

TABLE 2. INTERACTIVE SOURCE LIST

NEDS No.	Source Name	UTM Coordinates		Ht. (ft)	Diam. (ft)	Temp. °F	Flowrate (ACFM)	Allowed Particulates (lb/hr)	Operational Hours		
									Hours Day	Days Week	Weeks Year
1800-102-1	Borden - Rock Dryer	394.7	3069.6	100	4.0	210	90,000	42.32	24	5	52
1800-102-2	Borden - Dry Rock Storage	394.7	3069.6	27	3.1	75	18,000	42.32	17.3	5	52
1800-102-3	Borden - Dry Rock Shipping	394.7	3069.6	26.5	1.1	70	18,000	50.44	5.8	5	52
1800-50-1	S.I. Lime - Bulk Terminal	362.9	3084.7	60	2.0	95	1,000	31.83	8	6	52
1800-8-44	Gardinier - Ammonia Phosphate Plant	362.9	3082.5	80	3.0	130	20,000	16.2	22	7	52
1800-8-45	Gardinier - Vessel Loading Facility	363.2	3082.3	3	2.3	72	16,000	40.0	24	1.5	52
1800-50-5	Chloride - Lead Oxide Transfer System	361.8	3088.3	40	1.5	125	5,500	12.88	24	5	50
1800-50-6	Chloride - Lead Oxide Kettle	361.8	3088.3	40	1.5	125	5,438	12.88	24	5	50
1800-29-6	Nitram, Inc. - Prill Tower No. 2	363.1	3089.0	200	22.6	90	150,000	27.28	16	7	50
3680-56-5	IMC Prairie - No. 4 Raymond	403.0	3087.0	65	2.0	140	6,300	19.2	24	5	52
3680-57-4	Conserv. Chem. - Granulator	398.4	3084.2	211	3.2	180	35,000	30.98	24	7	52
3680-57-4	Conserv. Chem. - Dryer	398.4	3084.2	201	3.52	140	44,000	31.41	24	7	52
3680-57-4	Conserv. Chem. - Sizing	398.4	3084.2	172	2.5	150	16,000	31.35	24	7	52
3680-52-15	C.F. - Phosphate Rock Unloader to Silos	408.2	3082.9	45.3	4.5	77	37,000	41.89	24	7	52
3680-55-23	Agrico - GTSP Production	407.9	3071.0	140	9.0	107	156,000	49.6	22	7	52

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TABLE 2. (Continued)

NEDS No.	Source Name	UTM Coordinates		Ht. (ft)	Diam. (ft)	Temp. °F	Flowrate (ACFM)	Allowed Particulates (lb/hr)	Operational Hours		
									Hours Day	Days Week	Weeks Year
3680-59-24	New Wales - Bag Collector AFI Shipping	396.7	3079.4	120	8.0	125	110,000	40.41	24	7	48
3680-59-25	New Wales - Limestone Storage	396.7	3079.4	50	1.0	80	4,000	33.33	24	7	48
3680-59-26	New Wales - Silica Storage	396.7	3079.4	18	1.0	77	1,500	14.99	24	7	52
3680-59-27	New Wales - Granulator Plant for AFI	396.7	3079.4	172	8.0	120	130,000	36.8	24	7	48
3680-59-28	New Wales - AFI Silos	396.7	3079.4	116	1.0	77	1,600	36.2	24	7	52
3680-59-29	New Wales - Railroad & Truck Shipping	396.7	3079.4	40	3.0	80	12,000	41.88	24	7	50
3680-59-30	New Wales - Soda Ash Unloading	396.7	3079.4	61	.66	77	1,500	16.76	8	7	50
3680-59-31	New Wales - Soda Ash Conveying	396.7	3079.4	45	1.0	77	1,500	15.00	8	7	50
3680-59-32	New Wales - A Kiln Cooler	396.7	3079.4	87	1.5	325	30,000	15.00	24	5	50
3680-59-33	New Wales - B Kiln Cooler	396.7	3079.4	87	1.5	325	30,000	15.00	24	7	50
3680-59-34	New Wales - Multifos Sizing	396.7	3079.4	17	1.25	225	10,000	23.00	24	7	50
3680-59-35	New Wales - Multifos Class. System	396.7	3079.4	57	1.25	175	6,000	18.44	24	7	50
3680-59-36	New Wales - Dryer & 2 Kilns	396.7	3079.4	172	4.5	100	43,000	18.41	24	7	50
3680-59-37	New Wales - DAP/MAP Loadout	396.7	3079.4	N/A	N/A	80	18,500	38.6	24	7	52
3680-59-38	New Wales - AFI Storage and Loading	396.7	3079.4	65	1.0	85	8,000	40.35	24	7	52

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TABLE 2. (Continued)

NEDS No.	Source Name	UTM Coordinates		Ht. (ft)	Diam. (ft)	Temp. °F	Flowrate (ACFM)	Allowed Particulates (lb/hr)	Operational Hours		
									Hours Day	Days Week	Weeks Year
3680-50-38	USS Agri-Chem. - DAP Facility	413.2	3086.3	133	7.0	90	110,000	34.35	24	7	52
3680-50-39	USS Agri-Chem. - DAP/MAP Storage & Loading	413.2	3086.3	74	2.0	80	30,000	43.12	4	7	52
2540-29-1	Manatee Energy - Splitter Boiler	346.6	3057.7	64	2.0	550	5,000	1.25	24	7	50
2540-29-1	Manatee Energy - Splitter Furnace	346.6	3057.7	100	3.0	550	9,100	5.75	24	7	50
1680-11-1	American Orange - Citrus Peel Dehydrator	419.8	3047.3	34.5	10.0	185	27,000	10.12	24	6	28
1680-11-2	American Orange - Citrus Pulp Dehydrator	419.8	3047.3	35.5	13.3	185	45,000	16.52	24	6	28

B. Increment Analysis

The applicant is required to demonstrate that the proposed source does not cause or contribute to a violation of any maximum allowable increments consistent with paragraph (l) of the PSD regulations. Increments have been defined for TSP and SO₂, however, allowable emissions of SO₂ are less than 50 tons per year, 1000 pounds per day and 100 pounds per hour and no increment analysis is needed for SO₂ consistent with the exemption in paragraph (k) of the PSD regulations. Therefore only the increment analysis for TSP is required.

The applicant used the EPA approved Air Quality Display Model (AQDM) for evaluating long-term air quality effects contributed by the proposed source. Meteorological input was represented by a five year period measured at the Tampa National Weather Service (NWS) Station. Modeling of the emissions from the proposed construction was performed in conjunction with 33 other increment consuming sources listed in Table 2. Annual air quality effect of increment consuming sources was determined for maximum allowable annual emission rates of all sources for comparison with the allowable annual mean PSD increment of 19 micrograms per cubic meter (refer to Table 3).

The results indicated the annual effect of all increment consuming sources at the point of maximum impact to be 1.4 micrograms per cubic meter, about 8 percent of the increment. Estimated annual effects of the increment consumers at the property boundaries ranged from 0.4 to 0.7 micrograms per cubic meter. Effect at the nearest population groups - Keentown and Duette was 0.5 and 0.4 micrograms per cubic meter respectively.

Short-term air quality effects were computed from allowable source emission rates listed in Table 1 using the PTMTP-W computer model and worst case (highest, second highest concentration) meteorology. Worst case meteorology was determined from CRSTER computer code analysis of five years of hourly meteorological data. The analysis was performed for all major upwind increment consuming sources or source groupings to identify highest, second highest short-term concentrations for two locations irrespective of property boundaries and for two locations on property boundaries.

TABLE 3. CLASS II INCREMENTS

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Maximum Allowable Increases (Increments) Micrograms/Meter³</u>
Sulfur Dioxide (SO ₂)	Annual Mean	20
	24 - Hr.	91 ^a
	3 - Hr.	512 ^a
Particulate Matter (TSP)	Annual Mean	19
	24 - Hr.	37 ^a

^a The applicable maximum allowable increase may be exceeded during one such period per year at any receptor site.

Short-term effects of all increment consuming sources at the worst two points of highest, second highest concentrations were found to be 12.9 and 9.8 micrograms per cubic meter. Increment consumption was therefore 12.9 micrograms per cubic meter or 35 percent of the allowable 37 micrograms per cubic meter (refer to Table 3) PSD increment at the point of maximum concentration. Increment consumption at the worst two property boundary locations were found to be 8.1 and 5.2 micrograms per cubic meter.

The stacks of the dry rock storage silos and loading stations do not conform to Good Engineering Practice (GEP) stack height guidelines. As a result, the applicant was required to perform a downwash analysis to investigate the effect produced by the difference between proposed and GEP stack heights. The results of the downwash analysis indicated that worst case on-site effects are less than the secondary NAAQS of 150 micrograms per cubic meter and the worst case property boundary effects of the source are also below the applicable 24-hour average PSD limit of 37 micrograms per cubic meter.

It must be noted that concentrations of particulate matter attributable to the increase in emissions from construction and other temporary activities were excluded from increment consumption in accordance with paragraph (iii) of 40 CFR 52.21 (j). Further, fugitive TSP emissions from rock storage, etc. which do consume increment were not considered in the modeling analysis consistent with current Region IV policy. Region IV policy currently does not require modeling for fugitive TSP because of the controversy over the accuracy of currently available fugitive modeling techniques. In addition, fugitive dust emissions were treated as not consuming increment in accordance with PSD regulations.

C. NAAQS Analysis

The applicant must perform a NAAQS analysis to demonstrate that emission of TSP and NO_x do not threaten the NAAQS ceilings for these pollutants. As explained previously the source is exempt from air quality analysis of SO₂ emissions.

The NAAQS analysis is similar to the increment analysis dis-

cussed above. The 1977 Baseline was determined for annual and 24-hour average conditions using the AQDM and a combination of CRSTER PTMTP-W computer codes, respectively, for several locations of worst effect. The grid spacing was 0.1 kilometers. The data presented in Table 4 indicates that NAAQS for these pollutants will not be violated as a result of the operation of the proposed facility. This assessment was performed by combining the calculated air quality levels contributed by the proposed source and surrounding sources to existing background levels. The background levels for TSP were obtained by measurement from six monitors located in the general vicinity of the proposed project location.

D. Soils, Vegetation, Visibility

The applicant has stated that no adverse impacts on soils or vegetation will result from the operation of the proposed new source. Any effect at all to the nearby agricultural lands, e.g., citrus, grazing pasture, etc., is expected to be beneficial due to the nutritive values of the phosphate and sulfur compounds contained in the particulate matter emissions. Plumes from the stacks will contain varying degrees of heated water vapor and will dissipate within a relatively short distance from the stack. Although plumes are aesthetically unattractive, in this case the landscape is not viewed as characteristically scenic and therefore the plume is not expected to detract from aesthetic values.

E. Growth Impacts

Vehicular travel on paved and unpaved roadways to and from the proposed source is expected to cause fugitive dust emissions. It is estimated that 325 employee vehicles and a smaller number of service and delivery vehicles will be using the paved access road to the plant. The construction work force during the construction period will also contribute to vehicular fugitive dust emissions. Population growth and commercial activities are not expected to develop in the immediate area of the mine.

TABLE 4. AMBIENT AIR STANDARDS COMPARED TO CALCULATED CONCENTRATIONS AND BACKGROUND

Pollutant/Averaging Time	Background ($\mu\text{g}/\text{m}^3$)	Maximum Calculated Concentrations ($\mu\text{g}/\text{m}^3$) ^d	Total Concentrations	NAAQS ($\mu\text{g}/\text{m}^3$)
TSP				
- 24 hr	110.4 ^b	12.8	123.2	150
- annual	29.2 ^a	1.2	30.4	60
NO ₂				
- annual	20 ^c	1.0	21.0	100

^a Based on the measured highest annual geometric mean for 1977-1978.

^b Based on the highest second highest 24-hr measurement for 1977-1978.

^c Yearly maximum annual average concentrations measured 6 miles from the source from 1974-1978 of 20 $\mu\text{g}/\text{m}^3$ was utilized as a conservative estimate of NO₂.

^d Includes concentrations contributed by surrounding sources listed in Table II.

F. Class I Area Analysis

No Class I area is within a radius of 100 Km of the proposed source. The Chassahowitzka National Wilderness Area is located approximately 130 Km to the north west of the proposed source. Approximately 200 Km to the south east is the Everglades National Park. Considering the modeling results which indicated acceptable ambient concentrations in the vicinity of the plant and the additional dispersion which will occur over this distance, no adverse impact on these Class I areas is expected from the proposed construction.

V. Conclusions

EPA Region IV proposes a preliminary determination of approval for construction of the phosphate rock mining facilities at Estech General Chemicals Corporation's Duette Mine in Manatee County, Florida proposed in their application received August 16, 1979. This approval is based on the information provided in their application and additional information received in correspondence dated August 21, 1979, January 22, 1980, and March 10, 1980. The conditions set forth in the permit are as follows:

1. ~~The proposed construction will be in accordance with the capacities and specifications stated in the application. This specifically includes:~~

a) Fluid bed phosphate rock dryers (2):

- Maximum capacity - 262 tons/hr each (dry basis) or 290 tons/hr each (wet basis)
- NO_x control technology - low NO_x burners
- SO₂ control technology - wet scrubbers
- Type of fuel used - Number 6 residual oil with nitrogen and sulfur content not to exceed 0.3 and 1 percent by weight, respectively.

b) Package boiler (1):

- Capacity - 100 HP
- Maximum heat input - 3.99 MMBTU/hr
- Type of fuel used - distillate oil with nitrogen and sulfur content not to exceed 0.4 and 0.7 percent by weight, respectively.

2. The allowable emissions limits for emission sources of TSP, NO_x and SO₂ are as listed in Table 5.

BEST AVAILABLE COPY

TABLE 5. ALLOWABLE EMISSION RATES

Facility	TSP	NO _x	SO ₂
Phosphate Rock Dryers	22.93 lbs/hr and 0.098 lb/MMBTU heat input	75.8 lb/hr and 0.32 lb/MMBTU heat input	8.60 lbs/hr and .037 lb/MMBTU heat input
Package Boiler	0.057 lbs/hr and 0.014 lbs/MMBTU heat input	0.624 lb/hr and 0.16 lb/MMBTU heat input	2.82 lb/hr and 0.71 lb/MMBTU heat input
Dry Rock Storage Silos	8.74 lbs/hr		
Dry Rock Loading Station	5.77 lbs/hr		

3. Compliance with each allowable emissions limit listed in condition 2 will be determined by performance tests. Operation during these tests will be within 10% of the rated maximum capacity. Tests will be conducted with EPA standard methods and in accordance with the applicable provisions of 40 CFR 60.8. Testing of emissions will be carried out isokinetically with a minimum sampling volume of 30 dscf and a minimum sampling time of 60 minutes for each run and three runs per test. NO₂ grab samples will be obtained at 15 minute intervals.
4. The applicant is required to install, calibrate, maintain and operate a continuous monitoring system, and record the output from the system, for measuring the NO_x content of the flue gases from the phosphate rock dryers.
5. The following measures will be complied with for fugitive TSP and dust emissions:
 - a) Speed limit on unpaved roads is not to exceed 20 miles per hour. In addition, unpaved roads are to be sprayed with water and where practical and environmentally safe, watering should be supplemented with dust suppressant chemicals.
 - b) Speed limit on paved roads is not to exceed 30 miles per hour.
 - c) Exposed areas due to mining and reclamation activities are to be revegetated as soon as possible or within one year from the time overburden is initially spread and graded.
 - d) The top surface (to a depth of 6 inches) of material storage piles must be maintained at a moisture content of at least 13 percent.
6. The applicant will comply with the requirements and provisions of the attached general conditions.

GENERAL CONDITIONS

1. The permittee shall notify the permitting authority in writing of the beginning of construction of the permitted source within 30 days of such action and the estimated date of start-up of operation.
2. The permittee shall notify the permitting authority in writing of the actual start-up of the permitted source within 30 days of such action and the estimated date of demonstration of compliance as required in the specific conditions.
3. Each emission point for which an emission test method is established in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source. The permittee shall notify the permitting authority of the scheduled date of compliance testing at least thirty (30) days in advance of such test. Compliance test results shall be submitted to the permitting authority within forty-five (45) days after the complete testing. The permittee shall provide (1) sampling ports adequate for test methods applicable to such facility, (2) safe sampling platforms, (3) safe access to sampling platforms, and (4) utilities for sampling and testing equipment.
4. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of two (2) years from the date of recording.
5. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall provide the permitting authority with the following information in writing within five (5) days of such conditions:
 - (a) description of noncomplying emission(s),
 - (b) cause of noncompliance,
 - (c) anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance,
 - (d) steps taken by the permittee to reduce and eliminate the noncomplying emission,and
 - (e) steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of this report does not constitute a waiver of the emission limitations contained within this permit.

6. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, modifications to the permit may then be made by the permitting authority to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations specified herein.
7. In the event of any change in control or ownership of the source described in the permit, the permittee shall notify the succeeding owner of the existence of this permit by letter and forward a copy of such letter to the permitting authority.
8. The permittee shall allow representatives of the State environmental control agency or representatives of the Environmental Protection Agency, upon the presentation of credentials:
 - (a) to enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;
 - (b) to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Act;
 - (c) to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
 - (d) to sample at reasonable times any emission of pollutants;and
 - (e) to perform at reasonable times an operation and maintenance inspection of the permitted source.
9. All correspondence required to be submitted by this permit to the permitting agency shall be mailed to the:

Chief, Air Facilities Branch
Air and Hazardous Materials Division
U.S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30308
10. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

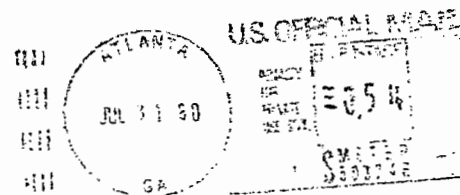
The emission of any pollutant more frequently or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30308

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300



Mr. Steve Smallwood, Chief
Bureau of Air Quality Management
Division of Environmental Programs
2600 Blair Stone Road
Tallahassee, FL 32301





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

① Willard 8/22
Fyi
② Patty
for Fed PSD
file.
Cla

AUG - 1 1985

REF: 4APT-AP

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. John Oskam
Group Vice President Phosphate
Estech, Inc.
P. O. Box 208
Bartow, Florida 33830

RE: PSD-FL-036-Estech, Inc. (Duette Mine Permit Extension)

Dear Mr. Oskam:

This is to acknowledge receipt of your letter dated May 30, 1985, requesting an extension to commence construction at the Duette Mine as authorized in federal PSD permit PSD-FL-036 issued on January 29, 1981. The referenced permit will expire on August 2, 1985, and your requested extension would extend the expiration date to February 2, 1987.

On May 17, 1985, the Florida Department of Environmental Regulation (FDER) prepared a preliminary determination concerning your March 8, 1985, request for an 18-month extension to commence construction of the Duette mine. In that determination the FDER recommended granting the 18-month extension with modifications to the permit conditions for the fluid bed rock dryer, eight dry rock storage silos, and two dry rock loading stations (reflecting New Source Performance Standards for Phosphate Rock Plants - 40 CFR Part 60, Subpart NN), and more restrictive visible emission limits for the oil-fired boiler. After the public notice period, the FDER prepared a final determination dated July 2, 1985, recommending the 18-month extension be granted with modifications to the permit conditions as mentioned above.

On July 2, 1985, the FDER granted an 18-month extension requested by Estech, Inc., for the state air construction permit, because the company had pursued but had been unable to obtain all permits required to begin construction of their phosphate rock drying and handling facility. These permits include a ground water discharge permit from the FDER and an operating permit from Manatee County. Because these delays in starting of construction of the Duette Mine were related to permitting problems in the State of Florida independent of the PSD requirements and outside the control of

DER

AUG 12 1985

BAQM

Estech, Inc., this Agency will grant an extension. EPA hereby grants an additional 18-month extension to Estech, Inc. to commence construction of the air pollution facilities authorized by federal PSD permit PSD-FL-036 with the following modifications:

1. Visible emissions from the two fluidized bed rock dryers shall not exhibit greater than 10 percent opacity*.
2. Visible emissions from the eight dry rock storage silos and the two dry rock loading stations shall exhibit no visible emissions*.
3. Emissions from the 3.99 million Btu per hour oil-fired boiler shall not exhibit greater than 15 percent opacity*.

*As determined by EPA reference method 9

This letter becomes a binding part of federal PSD permit PSD-FL-036 which was issued by the Environmental Protection Agency on January 29, 1981. If construction has not commenced within 18 months from August 2, 1985 (or by February 2, 1987), or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, federal PSD permit PSD-FL-036 shall expire and authorization to construct shall become void.

A notice granting this permit extension will be prepared and published in the Federal Register upon notification of your acceptance of the conditions contained herein. Please notify us of your position within ten (10) days after receipt of this letter.

If you have any questions concerning this extension, please contact Mr. Bruce P. Miller, Acting Chief, Air Programs Branch, at 404/881-4901.

Sincerely yours,



Jack E. Ravan
Regional Administrator

cc: C. H. Fancy, FDER, Tallahassee
Dan Williams, FDER, Tampa
Jim McDonald, Manatee County Pollution Control Board
Joseph E. Davis, Estech, Inc.

Estech, Inc.

DER

JUL 29 1985

BAQM

July 23, 1985

Mr. Winston Smith, Director
Air, Pesticides & Toxic Management Division
USEPA
345 Courtland Street
Atlanta, Georgia 30365

Re: USEPA Permit PSD-FL-036

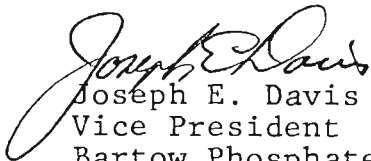
Dear Mr. Smith:

On May 30, 1985, Mr. John Oskam sent you a letter to request modification and extension of the above referenced permit, which expires August 2, 1985.

We have received the final determination (attached) on the permits to Construct Air Pollution Sources at the Duette Mine, and would appreciate a response to the above permit.

If there are any questions concerning this permit, please contact me.

Best regards,


Joseph E. Davis
Vice President
Bartow Phosphate

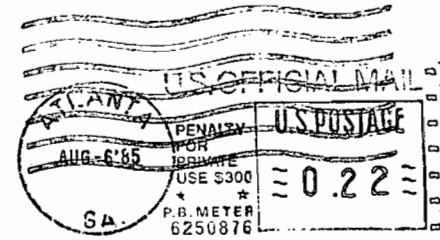
/nj
Attachment

cc: C. H. Fancy, BAQM, FDER w/o att.
W. D. Turner
J. R. Blue

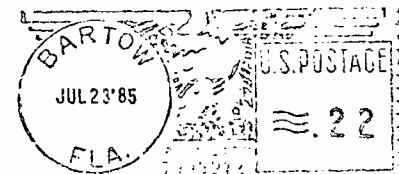
UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

Clair H. Fancy
Florida Department of
Environmental Regulation (FDER)
~~Twin Towers~~
2600 Blair Stone Road
Tallahassee, Florida 32301



Estech, Inc.



C. H. Fancy, P.E.
Deputy Bureau Chief
Bureau of Air Quality Management
FDER
Twin Towers Office Bldg.
2600 Bliar Stone Road
Tallahassee, Florida 32301-8241

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

January 16, 1984

Mr. Charles R. Jeter, Regional Administrator
United States Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30365

Dear Mr. Jeter:

Estech, Inc. request for a second extension of federal permit PSD-FL-036 for the air pollution sources at the proposed Duette Mine in Manatee County, Florida has been reviewed by the staff of Florida's Department of Environmental Regulation. Attached is a draft of our proposed response to the Company's request. If you have any question or comments on our proposal, please contact me at 904/488-1344.

Sincerely,

for E. L. Palagyi
C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/WH/bjm

January 17, 1984

DRAFT

Mr. Robert L. Rhodes, Jr.
Holland and Knight
P. O. Drawer BW
Lakeland, Florida 33802

Dear Mr. Rhodes:

RE: PSD-FL-036

This is in response to your December 6, 1983, request to the United States Environmental Protection Agency for a second extension of Estech, Inc.'s Federal Prevention of Significant Deterioration permit (PSD-FL-036). Specifically, you requested another 18 month extension, until August 2, 1985, of the "commence construction" deadline for Estech, Inc.'s processing equipment at the proposed Duette Mine that is to be located in Manatee County, Florida. The new expiration date would be 54 months beyond the January 29, 1981, date that this permit was issued on.

Section 52.21 of Title 40 of the Code of Federal Regulations states that a federal permit is invalid if construction is not commenced within 18 months of its approval. Commence construction means the applicant has obtained all necessary preconstruction permits or approvals and has begun construction or entered into contractual obligations to construct the plant. The company has the burden of obtaining all necessary permits. The Administrator may extend the 18 month period upon a satisfactory showing that the extension is justified.

It is the Florida Department of Environmental Regulation's opinion that Estech, Inc. has pursued but has been unable to obtain all extraneous permits and other approvals required to begin construction of the air pollution sources authorized by federal permit PSD-FL-036. We have no assurance that the required permits and approvals for this project will be obtained by August 2, 1985.

The Environmental Protection Agency (EPA) discourages PSD permit extensions because of potential problems caused by increment reservations that are created by such actions, improvements in technology that may require new sources to meet more restrictive emissions standards, which have the effect of allowing more

Mr. Robert L. Rhodes, Jr.
January 17, 1984
Page Two

DRAFT

emissions to be discharged by a source with the extended permit than is necessary, and new rules being adopted by regulatory agencies that were not addressed in the original permit.

Because the delays in starting of construction of the Duette Mine have been caused by regulatory action and Estech, Inc. has apparently pursued, in good faith, its efforts to obtain all required permits and approvals for the proposed mine, this agency will grant one more 18 month extension, with conditions, for Estech, Inc. to commence construction of the air pollution facilities authorized by federal permit PSD-FL-036. The conditions are that, prior to starting actual construction, Estech, Inc. shall:

1. Review and modify, if appropriate, the original Best Available Control Technology (BACT) determination for all air pollution sources at the proposed mine to reflect any improvements in technology that are available.
2. Update the ambient air quality impact study submitted with the application with any revised BACT emission standards and the most recently available ambient air monitoring data and meteorological data.
3. Agree to comply with all county, state and federal air pollution control regulations that have been legally adopted prior to start of construction of the plant.
4. Obtain written approval from the Florida Department of Environmental Regulation of the revised BACT determination, modeling results and compliance with any new regulations (if any) prior to start of actual construction.

Because of the time that has elapsed since the original application was submitted by Estech, Inc. for this mine, neither this agency nor the Florida Department of Environmental Regulation will consider a third extension of federal permit PSD-FL-036. If, for whatever reason, Estech, Inc. is unable to commence construction by August 2, 1985, and still wishes to build the mine, they must submit new, complete applications for permits and fees to the regulatory agencies and obtain new permits to construct all air pollution sources at the proposed mine.

*Amend
to
delete
is letter
over*

This letter must be attached to and becomes a binding part of federal permit PSD-FL-036 which was issued by the Environmental Protection Agency on January 29, 1981. If you have any questions

Mr. Robert L. Rhodes, Jr.
January 17, 1984
Page Three

DRAFT

concerning this extension, please contact Mr. Clair Fancy, Florida
Department of Environmental Regulation, at 904/488-1344.

Sincerely,

Charles R. Jeter
Regional Administrator

VJT/bjm

cc: C. H. Fancy, FDER, Tallahassee
Dan Williams, FDER, Tampa
Jim McDonald, Manatee County Pollution Control Board
Joseph E. Davis, Estech, Inc.

DRAFT

~~Chiang~~

January 16, 1984

Mr. Robert L. Rhodes, Jr.
Holland and Knight
P. O. Drawer BW
Lakeland, Florida 33802

Dear Mr. Rhodes:

RE: PSD-FL-036

This is in response to your December 6, 1983, request for a second extension of Estech, Inc.'s Prevention of Significant Deterioration permit (PSD-FL-036). Specifically, you requested another 18 month extension until August 2, 1985, of the "commence construction" deadline for Estech, Inc.'s processing equipment at the proposed Duette Mine that is to be located in Manatee County, Florida. The new expiration date would be 54 months beyond the January 29, 1981, date that this permit was issued on.

Section 52.21 of Title 40 of the Code of Federal Regulations states that a federal permit is invalid if construction is not commenced within 18 months of its approval. Commence construction means the applicant has obtained all necessary preconstruction permits and has begun construction or entered into contractual obligations to construct the plant. The company has the burden of obtaining all necessary permits. The

Administrator may extend the 18 month period upon a satisfactory showing that the extension is justified.

It is this agencies opinion that Estech, Inc. has pursued but been unable to obtain all extraneous permits and other approvals required to begin construction of the air pollution sources authorized by federal permit PSD-FL-036. We have no assurance that the required permits and approvals for this project will be obtained by August 2, 1985.

The regulatory agencies discourages PSD permit extensions because of potential problems caused by increment reservations that are created by such actions, improvements in technology that may require new sources to meet more restrictive emissions standards which ~~could result in~~ ^{have the effect of allowing} more emissions ~~being~~ ^{to be} discharged by a source with the extended permit than is necessary, ~~and new rules being adopted permit than is necessary,~~ and new rules being adopted by regulatory agencies that were not addressed in the original permit.

Because the delays in starting of construction of the Duette Mine have been caused by regulatory delays and Estech, Inc. has promptly pursued, in good faith, its efforts to obtain all required permits and approvals for the proposed mine, this agency will grant one more 18 month extension, with conditions, for Estech, Inc. to commence construction of the air pollution facilities authorized by federal permit PSD-FL-036. The conditions are that, prior to

starting actual construction, Estech, Inc. shall:

1. Review and modify, if appropriate, the original Best Available Control Technology (BACT) determination for all air pollution sources at the proposed mine to reflect any improvements in technology that are available.

2. Update the ambient air quality impact study submitted with the application with any revised BACT emission standards and the most recent^y~~y~~ available ambient air monitoring results and meteorology data.

3. Agree to comply with all county, state and federal air pollution control regulations that have been legally adopted prior to start of construction of the plant.

4. Obtain written approval from the Florida Department of Environmental Regulation of the revised BACT determination, modeling results and new regulations to be complied with prior to start of actual construction.

Because of the time that has elapsed since the original application was submitted by Estech, Inc. for this mine, this agency will not consider a third extension of federal permit PSD-FL-036. If, for whatever reason, Estech, Inc. is unable to commence construction by August 2, 1985, and still wishes to build the mine, they must submit new, complete applications for permits and fees to the regulatory agencies and obtain new permits to construct all air pollution sources at the proposed mine.

This letter must be attached to and becomes a binding part of federal permit PSD-FL-036 which was issued by the Environmental Protection Agency on January 29, 1981. If you have any questions

concerning this extension, please contact Mr. Clair Fancy, Florida
Department of Environmental Regulation, at 904/488-1344.

Sincerely,

Victoria J. Tschinkel

Secretary

VJT/bjm

cc: Dan Williams

Charles Jeter

Joseph Davis

Estech, Inc. - 2nd Request for Extension

- ① 2/2/81 - Estech Acid, P50 - FC-036 dated 1/29/81
Phosphate mine + processing plant in Marquette Co.
- ② June 14, 1982 - Requested extension (initial request) for NPDES sources
(see Exhibit B)
- ③ 8/5/81 - EPA extended until 2/2/84
- ④ Cannot begin const. because of legal delays

REASON FOR REQUEST

- ⑤ for 1 yr beginning June, 1982, - Co. tried to get NPDES permit
Commer reason to 3/1/83 by EPA
- ⑥ 3/9/83 - Upheld DFR calling for issuance of certain state permits
based on revised water mgmt program. Co. asked EPA if
NPDES req'd. ? (Exh. D)
- ⑦ June 7, '83 (Exh. E) - EPA said NPDES permit not req'd.
Co. withdrew appl. + EPA quit permitting procedure.
- ⑧ July 7, '83 County filed hearing to review EPA decision
(Exhib. I)
- July 13, 1983 - Mine Data - '88, Inc. - filed similar request
(Exhib. J)
EPA has not acted on that request to date.

LOCAL PERMITTING

- ⑨ Co. continue to try to comply with local permitting requirements.
- ⑩ 8/16/82 Co. reworked appl. County denied incomplete (Exh. L) + request
information.

3. We could waive the requirement that the F- sample be collected isokinetically.
4. We could consider temporary sealing of openings in the storage building during the test if it would simplify gas flow measurements.
5. Gas flow and concentrations of fluoride from other opening in the storage building would need to be determined as part of the test.
6. F- concentrations must be determined as gaseous ^{and} ~~or~~ water soluble F-.

Other requirements for an acceptable test are:

1. The storage building shall be filled to at least 10 percent capacity. At least 20 percent of the GTSP stored in the building shall be fresh. If this is not possible, at least 5 recent days of maximum production of the GTSP plant shall be in the storage building (Subpart X, NSPS).
2. The GTSP plant will be operating normally at permitted capacity prior to and during all tests.
3. Flow both in and out the building needs to be measured during the test.
4. The three runs for the test should be on 3 separate days, preferably with different wind speeds and directions.

Method 14 states that each test run will be for 8 or more hours.

- ⑪ Estech says County doesn't need info
Co. agreed supply info.
County extended time to 3/30/83 to submit additional info.
- ⑫ 3/28/83 (Exh. N) - Co. sent additional info.
April 13, 83 - County said applic. still incomplete (Exh. O)
County wanted all permits including NPDES, DER and H₂O or Reclamation plan from DNR + additional tech. info.
- ⑬ April 27, '83 (Exh. P) - Co. disagreed with County rules interpretation.
- ⑭ 8/30/83 (Exh. Q) - Co. submitted additional tech. info + requested appl. by process + approved - endorsement on receipt of other permits.
- ⑮ 9/23/83 (Exh. R) - County found applic. incomplete + requested tech. info + said Co. needed other permits.

↓ (C) DER Ground H₂O Permit ↓

- ⑯ County held Co. must obtain ground water discharge permit prior to const.
Co. filed applic. 3/29/83 (Exh. S)
- ⑰ Ground H₂O applic. I/c - later Aug 13, 83 (Exh. T) + July 6, '83 (Exh. U)
more studies req'd. Co. plan submit info Dec. '83

↓ (d) DNR Conceptual Reclamation Plan ↓

- ⑱ Reg. require Co. to reclaim land

to allow the flow calculations to be checked and these measurement are critical to the emission calculations.

Neither the Department or ASTM has a standard test method to measure the fluoride emissions from a naturally ventilated GTSP storage building. However, EPA specifies that reference Method 13A or B be used to measure the fluoride emissions from a GTSP storage building. They also have a Method 14, Determination of Fluoride Emissions from Pot Room Roof Monitors of Primary Aluminum Plants. The application in this case is very similiar.

The GTSP storage building needs to be tested using a procedure based on Method 14. If the Company chooses not to install the sampling manifold required by the procedure, the method can be modified with prior approval from the Department. Some modifications that would be considered by the Department are:

1. Use of thermistor anemometers or other device to measure low velocities instead of vane anemometers to determine gas flow at each sampler in the roof monitor and the other openings in the building.
2. Eight separate sampling systems (probe, wet impingers, gas meters, vacuum sources, etc) instead of a method 13 sample train.

- 19) Co filed Reclam. plan on 1-14-82, additional info requested by DNR. Plan complete on Aug 30, 1983. DNR recommended plan has approved.
- 20) On 10/18/83, Governor + Cabinet approved plan
- 21) On 11/3/83 Montee County challenged DNR approval of Reclam. plan (Exh. W). Discovery is underway

SUMMARY

- 22) Company + County in dispute over local operating permit + zoning requirements.
 County considers applic. incomplete.
 " continues to request detail tech. info
 County wants {
 - NPDES permit
 - DER and H₂O permit
 - DER Reclam plan
- 23) County insist on NPDES permits / EPA says not needed
 Co. Challenging EPA decision
- 24) Co. oppose Gov. + Cabinet approval of Reclam. plan.
 Probably appeal.
- 25) Co. files DER and H₂O discharge permit application.
 Detail info being requested / studies req'd.
 If permit approved, Montee Co. will probably appeal.
- 26) Co. trying to get all permits.
 Cannot begin Const. by 2/2/84.

Request for Relief

Extend PSD-FC-036 until 8/2/85

~~Just @ defn of "Commerce" in 40 CFR 52 see page 14
 BACT + Minimization of emissions plan to be submitted its adequacy or
 any previous determination of BACT must justify expansion~~

TO: Bill Thomas, ^{SW} ~~SB~~ District

FROM: Clair Fancy and Willard Hanks

DATE: October 24, 1983

SUBJ: USS Agri-Chemical's GTSP Storage Building

We have reviewed USS Agri-Chemical's application for a permit to operate the GTSP storage building. We find the test results are not acceptable and recommend that the company be required to furnish new test results obtained by a test method approved by the Department before the application for the permit is processed. Consequently, it should be deemed incomplete.

Test results supplied by the company are not acceptable because the procedures used did not have the approval of the Department. The ASTM based procedure used by the company is not acceptable to the Department because it uses treated filters to capture the fluoride (F-). All F- test methods described in 40 CFR 60, Appendix A, and the state stack sampling manuals have used wet impingers to capture the fluoride. The one comparative set of samples submitted by the company showed the impinger captured 24 percent more fluoride than the treated filters. We also question the company's calculations of fluoride emissions from the building; but, as the test procedure is invalid, we feel it is not necessary to correct them. The company did not submit enough data

January 16, 1984

Mr. Robert L. Rhodas, Jr.
Holland and Knight
P. O. Drawer BW
Lakeland, Florida 33802

Dear Mr. Rhodas:

RE: PSD-FL-036

This is in response to your December 6, 1983, request for a second extension of Estech, Inc.'s Prevention of Significant Deterioration permit (PSD-FL-036). Specifically, you requested another 18 month extension until August 2, 1985, of the "commence construction" deadline for Estech, Inc.'s processing equipment at the proposed Duette Mine that is to be located in Manatee County, Florida. The new expiration date would be 54 months beyond the January 29, 1981, date that this permit was issued on.

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Administrator may extend the 18 month period upon a satisfactory showing that the extension is justified.

It is this agencies opinion that Estech, Inc. has pursued but been unable to obtain all extraneous permits and other approvals required to begin construction of the air pollution sources authorized by federal permit PSD-FL-036. We have no assurance that the required permits and approvals for this project will be obtained by August 2, 1985.

The regulatory agencies discourages PSD permit extensions because of potential problems caused by increment reservations that are created by such actions, improvements in technology that may require new sources to meet more restrictive emissions standards which ^{have the effect of allowing} ~~could result in~~ more emissions ^{to be} being discharged by a source with the extended permit than is necessary, and ~~new rules being adopted~~ ^{new rules being adopted} by regulatory agencies that were not addressed in the original permit.

Because the delays in starting of construction of the Duette Mine have been caused by regulatory ^{action} delays and Estech, Inc. has promptly pursued, in good faith, its efforts to obtain all required permits and approvals for the proposed mine, this agency will grant one more 18 month extension, with conditions, for Estech, Inc. to commence construction of the air pollution facilities authorized by federal permit PSD-FL-036. The conditions are that, prior to

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starting actual construction, Estech, Inc, shall:

1. Review and modify, if appropriate, the original Best Available Control Technology (BACT) determination for all air pollution sources at the proposed mine to reflect any improvements in technology that are available,
2. Update the ambient air quality impact study submitted with the application with any revised BACT emission standards and the most recent available ambient air monitoring results and meteorology data.
3. Agree to comply with all county, state and federal air pollution control regulations that have been legally adopted prior to start of construction of the plant.
4. Obtain written approval from the Florida Department of Environmental Regulation of the revised BACT determination, modeling results and new regulations to be complied with prior to start of actual construction.

Because of the time that has elapsed since the original application was submitted by Estech, Inc. for this mine, this agency will not consider a third extension of federal permit PSD-FL-036. If, for whatever reason, Estech, Inc. is unable to commence construction by August 2, 1985, and still wishes to build the mine, they must submit new, complete applications for permits and fees to the regulatory agencies and obtain new permits to construct all air pollution sources at the proposed mine.

This letter must be attached to and becomes a binding part of federal permit PSD-FL-036 which was issued by the Environmental Protection Agency on January 29, 1981. If you have any questions

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concerning this extension, please contact Mr. Clair Fancy, Florida
Department of Environmental Regulation, at 904/488-1344.

Sincerely,

Victoria J. Tschinkel

Secretary

VJT/bja

cc: Dan Williams

Charles Jeter

Joseph Davis

2nd extension

Boyer Proof

Another look at BACT

(EPR)

BEFORE THE UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REGION IV

DER

In Re: Estech, Inc. -)
Prevention of Significant)
Deterioration Construction)
Permit PSD-FL-036)

JAN 9 1984

BAQM

SECOND REQUEST FOR EXTENSION OF TIME
TO COMMENCE CONSTRUCTION

Estech, Inc., pursuant to 40 C.F.R. § 52.21(r)(2), hereby requests a further extension of time to commence construction and in support thereof states:

Background

1. On February 2, 1981, Estech General Chemicals Corporation received a prevention of significant deterioration construction permit No. PSD-FL-036, dated January 29, 1981 (PSD Permit), authorizing construction of certain facilities at the company's proposed phosphate rock mine and processing plant to be located in Manatee County, Florida (Duette Mine). The PSD Permit (Exhibit A) was issued pursuant to Section 165 of the Clean Air Act and 40 C.F.R. § 52.21. (Estech General Chemicals Corporation subsequently changed its name to Estech, Inc. and will be referred to in this Request as "Estech.").

2. On June 14, 1982, Estech filed a "Request for Extension of Time to Commence Construction" (Initial Request) on the permitted air emission facilities at the Duette Mine. The Initial Request is incorporated herein by reference and a copy (without exhibits) is attached for convenience of review (Exhibit B).

3. By letter dated August 5, 1982 (Exhibit C), the Regional Administrator of the United States Environmental Protection Agency - Region IV (EPA) granted Estech's request for an extension of time to commence construction until February 2, 1984.

4. As a result of further permitting delays discussed in detail below, Estech will not be able to commence construction on permitted air emission facilities at the Duette Mine within the extended time period granted by the Regional Administrator.

Reasons for Request

(a) NPDES/NEPA Requirements

5. For a one-year period beginning in June, 1982, Estech continued to pursue its application for a National Pollutant Discharge Elimination System (NPDES) permit. See Initial Request at paragraphs 3-8. EPA reopened the comment period on the draft NPDES permit on June 3, 1982. A draft Supplement to the Environmental Impact Statement was issued in December, 1982. The comment period on the draft Supplement and the reopened comment period on the draft NPDES permit extended until March 1, 1983.

6. On March 9, 1983, the Florida First District Court of Appeal rendered its decision which upheld the final order of the Secretary of the Department of Environmental Regulation (DER) calling for issuance of certain state permits based upon Estech's revised water management program. Manatee County v. Department of Environmental Regulation, 429 So.2d 360 (Fla. 1st DCA 1983). In addition, Estech completed a design level detailed water balance analysis that confirmed the conceptual water balance upon which the revised water management program was initially based. Because of these developments, Estech requested EPA's advice as to whether an NPDES permit continued to be required for the Duette Mine (Exhibit D).

7. By letter dated June 7, 1983 (Exhibit E), EPA's Regional Administrator advised Estech that, in the absence of a point source discharge of pollutants to waters of the United States, no NPDES permit would be required. The Regional Administrator went on to state: "Information available to the Environmental Protection Agency (EPA) through the EIS documents supports such a conclusion, and

therefore, EPA does not consider this project, on the basis of that information, as one requiring an NPDES permit." Accordingly, by letter dated June 8, 1983 (Exhibit F), Estech withdrew its pending application for an NPDES permit. EPA terminated its NPDES permitting activity (Exhibit G), and published a Notice of Inactivation (Exhibit H).

8. On July 7, 1983, Manatee County filed a Request for Evidentiary Hearing seeking administrative review of the decision to inactivate Estech's NPDES permit application process [Exhibit I (without attachments)]. On July 13, 1983, ManaSota-88, Inc. and Manatee County Save Our Bays Association, Inc. filed a similar request [Exhibit J (without attachment)]. EPA has taken no formal action on these requests to date.

(b) Local Permitting

9. Estech has continued to attempt to comply with applicable local permitting requirements since the time of the Initial Request. See Initial Request at paragraphs 9-25. (The judicial action referred to in paragraph 24 of the Initial Request is pending.)

10. Estech resubmitted its application for an operating permit on August 16, 1982, along with the \$25,000 filing fee [Exhibit K (transmittal letter only)]. Manatee County accepted the application for review, but determined that the application was not complete (Exhibit L). Manatee County requested a great deal of highly-detailed additional information.

11. Estech contends that the additional information requested by Manatee County is well beyond the scope and level of detail required to be included in a complete operating permit application. The company, however, agreed to submit the information. Because the requested level of detail mandates that Estech carry out additional engineering studies and research activities, Estech sought and obtained from Manatee County an extension of time to March 30, 1983,

within which to submit the additional information (Composite Exhibit M).

12. By letter dated March 28, 1983 (Exhibit N), Estech transmitted the additional information previously requested by Manatee County. Manatee County responded by letter dated April 13, 1983 (Exhibit O), stating that the application for an operating permit continued to be incomplete. The County asserted that all necessary permits from federal and state agencies must be included as a part of a complete operating permit application and pointed out that Estech had not submitted an NPDES permit, a DER ground water permit, or an approved conceptual reclamation plan from the State of Florida Department of Natural Resources (DNR). The County also requested additional technical information.

13. By letter dated April 27, 1983 (Exhibit P), Estech disputed Manatee County's interpretation of its ordinance concerning the necessity of filing all other required permits as a prerequisite to county processing of the operating permit application.

14. By letter dated August 30, 1983 (Exhibit Q), Estech submitted additional technical information to Manatee County and requested that the permit application be processed and approved. Estech asserted that approval could be expressly conditioned upon subsequent receipt of any other necessary agency permits.

15. By letter dated September 23, 1983 (Exhibit R), Manatee County again found the application to be incomplete and again requested highly detailed additional technical information. Furthermore, the county rejected Estech's request that the application be processed to approval subject to obtaining necessary additional permits.

- (c) DER Ground Water Permit

16. In the March 9, 1983, decision referred to in paragraph 6 above, the Florida First District Court of Appeal expressly held that Estech must obtain a DER ground water

discharge permit prior to commencement of construction at the Duette Mine. 429 So.2d at 363-64. Estech filed an application for a ground water permit on March 29, 1983 [Exhibit S (transmittal letter only)].

17. The permit application was reviewed by DER and by representatives of the Manatee County pollution control program. By letters dated May 13, 1983 (Exhibit T) and July 6, 1983 (Exhibit U), the application was determined to be incomplete. Extremely detailed additional information was requested. In order to respond to these extraordinary requests for additional information, Estech had to carry out additional engineering studies and technical analyses. Estech expects to submit the requested additional information to DER during the month of December, 1983.

(d) DNR Conceptual Reclamation Plan

18. Under Florida law, lands disturbed by the severance of certain minerals (including phosphate rock) must be reclaimed in accordance with a reclamation and restoration program consistent with rules adopted by DNR. See Section 211.32(1)(a), Florida Statutes. The DNR regulations designed to implement this statutory requirement are set forth in Chapter 16C-16, Fla. Admin. Code. For proposed mines such as the Duette Mine, the operator is required to file a proposed conceptual reclamation plan for approval by the Florida Governor and Cabinet sitting as the head of DNR.

19. Estech filed its proposed conceptual reclamation plan with DNR on January 14, 1982. A series of requests for additional information by DNR staff and responsive submittals by Estech then ensued. DNR staff determined that the proposed conceptual plan was complete as of August 30, 1983. Upon completion of its review, DNR staff recommended to the Governor and Cabinet that the proposed plan be approved with conditions (Exhibit V).

20. On October 18, 1983, the Governor and Cabinet approved Estech's conceptual reclamation plan in accordance with DNR staff recommendations.

21. On November 3, 1983, Manatee County filed a "Petition for Formal Proceedings Under Section 120.57, Florida Statutes" for the purposes of challenging the DNR action approving the Estech conceptual reclamation plan [Exhibit W (without attachments)]. Discovery is under way in this administrative proceeding. A hearing date has not yet been set, but the earliest likely date would be in late January, 1984.

Summary

22. The facts set forth in this Request demonstrate that Estech and Manatee County continue to be in dispute as to the applicable local operating permit and zoning requirements. Although Manatee County has agreed to accept Estech's operating permit application for review, it continues to refuse to find the application complete for final processing and action by the Board of County Commissioners. Manatee County continues to request highly-detailed refined additional technical information despite the fact that Estech has provided information at a level of detail far beyond that arguably required by either the Zoning Ordinance or the Mining Ordinance. In addition, Manatee County refuses to consider Estech's operating permit application to be complete in the absence of the submittal of an EPA NPDES permit, a DER ground water permit, and a DNR final conceptual plan approval. It is impossible at this time to determine when Manatee County will determine that the operating permit is complete. A completeness determination would trigger a 90-day period within which the Manatee County Commission must grant or deny the operating permit. It is clear, however, that this action will not take place prior to February 2, 1984.

23. As noted above, Manatee County takes the position that Estech must submit an NPDES permit for the Duette Mine in order for its county operating permit application to be considered complete. This is so even though EPA has formally determined that no NPDES permit is required for the

Duette Mine project. Manatee County is actively challenging this EPA determination. It is unclear at this time when an EPA ruling on the Manatee County evidentiary hearing request will be issued. If the request is denied and Manatee County seeks further administrative and judicial review of this decision, complete resolution of this issue will not occur until well beyond February 2, 1984. Apparently Manatee County will continue to take the position that Estech must submit an NPDES permit as part of the operating permit application until such time as the County is convinced that no such permit is required.

24. With regard to the DNR conceptual plan, Manatee County is actively opposing the Governor and Cabinet approval action. The earliest likely hearing date would be in late January, 1984. After the hearing, the hearing officer will require time to develop and issue a recommended order. Then, the matter will have to be referred back to the Governor and Cabinet for reconsideration and final action. Assuming that Manatee County is unsuccessful in the administrative process, it is reasonable to assume that it will seek judicial review in the Florida First District Court of Appeal. Under these circumstances, a final order approving the conceptual reclamation plan may not be effective until some time in 1985. (It should be noted that DNR conceptual plan approval is not in itself a preconstruction requirement under Chapter 211, Florida Statutes. It is only Manatee County's insistence that an approved plan be submitted before the operating permit application can be considered complete that effectively turns the reclamation plan approval requirement into a "construction permit.")

25. Estech promptly filed its DER ground water discharge permit application following the judicial determination that this permit was a preconstruction requirement. DER and the Manatee County local pollution control program requested such extensive additional information that highly detailed further studies were required. Even if Estech's

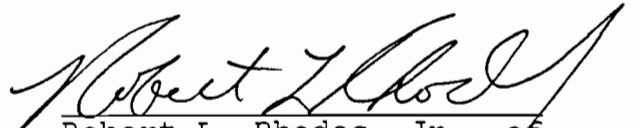
expected December, 1983, submittal of additional information is deemed to render its application complete, this will simply trigger a 90-day review period within which DER is required to propose to issue or deny the permit. See Fla. Stat. § 120.60. If DER proposes to issue the permit, it is reasonable to assume that Manatee County or other third parties will exercise administrative and judicial remedies. Accordingly, no DER ground water discharge permit will be issued prior to February 2, 1984.

26. Estech has continued to exercise due diligence and good faith efforts in its attempts to obtain all necessary preconstruction permits and approvals for the air emission facilities that are the subject of the PSD permit. Despite these efforts, it will be impossible for Estech to commence construction on the facilities by February 2, 1984.

Request for Relief

WHEREFORE, Estech requests EPA to grant an extension of the time within which it must commence construction on the air emission facilities subject to PSD Permit No. PSD FL-036 until August 2, 1985.

Respectfully submitted,



Robert L. Rhodes, Jr., of
HOLLAND & KNIGHT
Post Office Drawer BW
Lakeland, FL 33802
813/682-1161

Attorneys for Estech, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the foregoing document was sent by United States Mail, certified return receipt requested, postage prepaid to Mr. Charles R. Jeter, Regional Administrator, United States Environmental Protection Agency, Region IV, 345 Courtland Street, Atlanta, Georgia 30365 this 6th day of December, 1983.


Robert L. Rhodes, Jr.

Estech-120183:25



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30308

JAN 29 1981

REF: 4AH-AP

Mr. Joseph E. Davis
Manager of Products
Estech General Chemicals Corporation
First Commercial Bank Building
DeSoto Square
410 Cortez Road West
Bradenton, Florida 33507

RE: PSD-FL-036

Dear Mr. Davis:

Review of your January 22, 1980 application (PSD-FL-036) to construct a phosphate rock mine and processing plant near Duette, Florida has been completed. The construction is subject to rules for the Prevention of Significant Air Quality Deterioration (PSD), contained in 40 CFR 52.21.

We have determined that the construction, as described in the application, meets all applicable requirements of the PSD regulations, subject to the conditions in the conclusions section to the Final Determination (enclosed). EPA has performed the Preliminary Determination concerning the proposed construction, and published a request for public comment on September 17, 1980. One comment was received. A copy of this comment along with our response is enclosed. No substantive changes were made to the Preliminary Determination.

Authority to Construct a Stationary Source is hereby issued for the facility described above, subject to the conditions in the conclusion's section of the enclosed Final Determination. This Authority to Construct is based solely on the requirements of 40 CFR 52.21, the Federal regulations governing significant deterioration of air quality. It does not apply to NPDES or other permits issued by this agency or permits issued by other agencies. Information regarding EPA permitting requirements can be provided if you contact Mr. Joe Franzmathes, Director, Office of Program Integration and Operations, at (404) 881-3476. **Additionally, construction covered by this Authority to Construct must be initiated within 18 months from the receipt of this letter.**

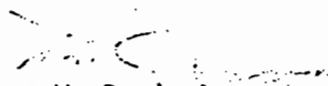
Please be advised that a violation of any condition issued as part of this approval, as well as any construction which proceeds in material variance with information submitted in your application will be subject to enforcement action.

EXHIBIT A

*files
36 CFR - air Per*

Authority to Construct will take effect on the date of this letter. The complete analysis which justifies this approval has been fully documented for future reference, if necessary. Any questions concerning this approval may be directed to Mr. Kent Williams, Chief, New Source Review Section (404/881-4552).

Sincerely yours,

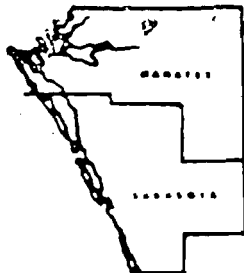

Thomas W. Devine
Director
Air and Hazardous Materials Division

Enclosure

cc: S. Smallwood
Florida Department of Environmental Regulation

MANASOTA - 88

A Project for Environmental Quality 1968 - 1988



September 27, 1980

Mr. Tommie A. Gibbs, Chief
Air Facilities Branch
U.S. EPA, Region IV
345 Courtland St., NE
Atlanta, Georgia 30308.

Re: Estech Public Notice
(PSD- Fl-036)

Dear Mr. Gibbs:

The determination to permit Estech to construct 2 phosphate rock dryers at the Estech mine site appears to be based on inaccurate information re: available technology, energy considerations, cost of control equipment and resource depletion. NEPA requirements do not appear to have been met. EPA policy re: radionuclide assessment appears not to have been met.

Technology has been developed within the last few years whereby wet rock can be acidulated with undiluted commercial grade sulfuric acid. This process has proven to be economical, efficient and results in a significant decrease in atmospheric emissions of particulates and radionuclides. (1)

(A typical rock dryer meeting EPA and State air standards emits 60,000 kg (66 tons) of particulates annually, which includes 27×10^8 pCi of radium 226, 27×10^8 pCi of thorium 230, and 50×10^8 pCi of uranium. Emissions of radionuclides exceed those allowed by NRC for a 1000 megawatt nuclear power plant by greater than ten-fold. In addition to stack emissions from the dryer, emissions from transfer and transportation of the dried rock from the dryer to the chemical plant are equal to or greater than those from the dryer stack. (2)

No information was provided re: areawide exposure to emissions of radionuclides and no information provided re: exposure of residents along the prescribed route chosen to transport dried rock to emissions of radionuclides.

No guidance on allowable radionuclide emissions and exposure levels to be considered in site-specific studies where the dryer exception is applied appears to have been provided by the EPA Office of Radiation Programs as was agreed to. (3)

Additionally, no consideration appears to have been given to the fact that air pollution control devices proposed by Estech will not control the emissions of radionuclides from the proposed rock dryers. The EPA states in the Dec. 27, 1979 Federal Register that air cleaning equipment does not remove radionuclides at these sites, that radionuclides are still released into the atmosphere and are dispersed into populated areas.

While emission standards for hazardous air pollutants are still being promulgated, radionuclides from phosphate mining operations including rock dryers, are listed by EPA as hazardous air pollutants causing cancer, genetic damage and other life shortening effects.

Based on the latter, it can be seen that the objective of the areawide EIS to protect air quality will not be attained through the use of rock dryers by Estech.

Use of phosphate rock dryers, including emission limitations, is not the BACT. "After emission limitations for phosphate rock dryers were established, technology developed which allows elimination of the drying process for rock chemically processed in Central Florida." (4) (Three chemical plants in Central Florida have converted to wet rock acidulation on a full scale basis. Two others are in planning or design stages of conversion. The trend indicates that all chemical plants in Central Florida will convert to wet rock processing within the next few years.) (5) No adequate proof has been presented to justify Estech being permitted the use of dryers.

We believe in order to justify the use of the dryers, regulations require a cost/benefit report be prepared by EPA which would show the dollar value assigned to human lives in Manatee County and along the transportation route that, based on EPA projections, will be lost to cancer as opposed to the financial benefits to the company as a result of using the dryers.

While we cannot believe that anyone should weigh the costs of saving a human life as opposed to the regulation costs to the industry and think it has been amply demonstrated that it was not the intent of the Congress or the Courts to give EPA the right to decide what somebody's life is worth; since this appears to be a function Region IV has assumed, the public deserves to see the methods you use to make such a determination.

When the exception to permit Estech rock dryers was made, no consideration was given to the irreversible and irretrievable commitment of national resources as required by NEPA. Trying to justify these dryers based on world-wide energy impacts or resource depletion is not the purpose of NEPA requirements.

In summary, it appears no information was provided re: areawide and individual exposure to radionuclide emissions, no guidance on allowable radionuclide and exposure levels to be considered in site-specific studies was provided by the EPA Office of Radiation Programs, no consideration appears to have been given to the fact that air pollution control devices will not control the emission of radionuclides from rock dryers, rock dryers are not considered BACT and their use has not been justified and NEPA requirements appear not to have been met.

Until these deficiencies are corrected, we request this permit not be issued.

Sincerely,

Reply: 5314 Bay State Rd.
Palmetto, Fl 33561

(1) (2) (3) (4) (5) See 4-66 & 67, Volume III, Final Areawide E

RESPONSE TO PUBLIC COMMENTS

ESTECH GENERAL CHEMICALS

(PSD-FL-036)

One comment was received on the proposed phosphate mine and processing plant (copy attached). The comment concerned radionuclide emissions from the proposed source.

Radionuclide emissions are not regulated under the Clean Air Act. The Authority to Construct under Federal Prevention of Significant Deterioration (PSD) regulations (40 CFR §52.21) apply only to pollutants regulated under the Act. Until promulgation of a NESHAPS or other final rulemaking, radionuclides will not be a regulated pollutant and therefore not subject to review under Federal PSD regulations.

A site specific evaluation of radionuclides has been performed in developing the Environmental Impact Statement (EIS) for the proposed source in compliance with NPDES permitting requirements. The analysis and conclusions drawn are presented in the EIS and supporting documents on air quality and radiation.

Another expressed concern is that rock dryers are being used when wet rock technology exists for producing phosphoric acid which emits less pollutants. The Estech mine and processing plant sells rock products (both wet and dry) to other companies for phosphoric acid production. Prohibiting the use of rock dryers would substantially affect products produced by the source through elimination of a major product line. Drastic manipulation of the products and thus the purpose of an industrial complex such as would be accomplished through a prohibition of rock drying at this source is beyond the authority embodied in the BACT requirements of PSD regulations.

Information concerning this project (PSD review and EIS) has been and remains available to the public (contact Mr. Joe Franzmathes, Director, Office of Program Integration and Operations, EPA Region IV, 345 Courtland Street, NE, Atlanta, Georgia 30365)

APPLICATION PSD-FL-036

FINAL DETERMINATION

I. Applicant

Estech General Chemicals Corporation
410 Cortez Road West
Bradenton, Florida 33507

II. Location

The applicant proposes to construct rock mining facilities in the town of Duette in Manatee County, Florida. Duette is located approximately 19 miles east of the town of Parrish, off highway 62. The various facilities will be located at the following UTM coordinates: Boiler 389.18E and 3047.63N; Rock Dryers 388.95E and 3047.28N; Silos 388.72E and 3047.32N; and product Loading Stations 388.73E and 3047.18N.

III. Project Description

The proposed source is a phosphate rock mine and associated processing plant. Air pollution emitting facilities at this source include the following:

- Boiler (3.99 MMBTU/hr)
- Two fluid bed dryers (290 tons material input/hr each)
- Eight dry rock storage silos (3750 ton storage capacity)
- Two dry rock loading stations (200 ton bin capacity)

The applicant proposes to use a fuel oil fired 100 horsepower package boiler to generate steam for heating purposes. Heat is required to maintain flotation reagents at proper temperatures for process use and to preheat No. 6 fuel oil so that it can be pumped to the two phosphate dryer oil burners. The boiler will be fired with low sulfur distillate fuel having a nitrogen content of 0.4 percent and a sulfur content of 0.7 percent.

The two fluidized bed dryers will dry phosphate rock from about 13 to 2 percent moisture. (The dryers remove moisture by passing heated air through the fluidized bed of rock). The air is heated by combustion of fuel oil in the air stream directly before entering the fluidized bed. Large size, heavy components of product exit the fluidized bed dryer to a product conveyor and the lighter components are carried along with the fluidizing air to product recovery cyclones which remove economically

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TABLE 1. EMISSIONS SUMMARY

Facilities	Fugitive PM	TONS PER YEAR		CO	HC	NO _x	Fluoride
		PM	SO ₂				
Package Boiler	---	0.25 ^a	12.4 ^a	0.62 ^b	0.12 ^b	2.73 ^c	---
Phosphate Rock Dryers (2)	---	85.4 ^c	32.0 ^c	28.8 ^d	5.76 ^d	264 ^e	0.15 ^c
Dry Rock Storage	---	38.8 ^e	---	---	---	---	---
Dry Rock Loading Station	---	25.3 ^e	---	---	---	---	---
Mining and Reclamation	43.1 ^c	---	---	---	---	---	---
Wet Phosphate Rock Storage Pile	47.5 ^c	---	---	---	---	---	---
TOTAL	90.6	149.25	44.4	29.42	5.88	266.3	0.15
PSD Significant Emissions Rates ^f		25	40	100	100	40	3

- a. Calculated by applicant in the FDER construction permit application section of the PSD application.
- b. Calculated by using emission factors given in Table 1.3-1 of AP-42.
- c. Calculated by applicant in the BACT application section of the PSD application.
- d. Listed by applicant in Air Quality Resource Document section of the PSD application.
- e. Based on allowable emission limit and maximum allowable yearly hours of operation.
- f. As defined in 40 CFR 52.21 (b)(23).

recoverable product from the gas stream. Product recovered by the cyclones is also discharged to the product conveyor. The remaining hot gas is cleaned in a wet scrubber and vented to the atmosphere.

The eight Dry Rock Storage Silos are designed to hold production output for relatively short periods of time and supply product to the Dry Rock Loading Stations on demand. The input rate is consistent with production of the two phosphate rock dryers and the output rate designed for optimum and effective shipment of product. Fugitive emissions generated during product transfer and silo loading are captured by hoods and collected in a silo loading scrubber.

The two dry rock loading stations are each designed with a compartmented 100 ton loading bin. Each bin is designed to discharge through eight spouts into the hatches of a 100 ton railroad hopper car. The bin loading collection systems exhaust into a single wet scrubber serving both loading bins. The rail car loading spouts are designed to enclose the car hatch openings and include necessary air inflow and dust capture features to prevent fugitive dust release during the car loading operations. A single wet scrubber is designed to serve both car loading dust collection systems on an alternating basis.

IV. Source Impact Analysis

The proposed construction has the potential to emit greater than 100 tons per year of particulate matter (PM) and nitrogen oxides (NO_x) as shown in Table 1. Therefore, in accordance with the provisions of Federal Regulation 40 CFR 52.21 promulgated 7 August 1980, the construction is a new major stationary source subject to Prevention of Significant Deterioration (PSD) review.

Full PSD Review includes an analysis of the following:

- A. Best Available Control Technology (BACT),
- B. Increment impacts,
- C. National Ambient Air Quality Standards (NAAQS) impacts,
- D. Growth impacts,
- E. Visibility, Soils, and vegetation impacts,
- F. Class I area impacts.

The PSD regulations require an analysis of these pollutants for each pollutant with a significant emissions rate as defined in 40 CFR 52.21 (b)(23). Emission rates of PM, sulfur dioxide (SO₂) and NO_x exceed the significance level. Full PSD review applies to these pollutants except for certain specific exemptions outlined in the following sections applicable to complete applications submitted prior to August 7, 1980, the promulgation date of the revised regulations. These exemptions are identified in the appropriate analysis summary sections.

A. BACT Analysis

BACT analysis is required for emissions of PM and NO_x. SO₂ is exempt from BACT requirements consistent with the provisions of 40 CFR 52.21 (i)(9), which exempts applications submitted before August 7, 1980 from the more restrictive BACT requirements of the 1980 PSD regulations. Because SO₂ emissions are less than 50 tons per year they do not meet the 1978 PSD regulation BACT criteria and therefore, are exempt from PSD review.

PM

Particulate matter emissions are capable of being generated from all of the facilities proposed for construction (refer to Table 1). These facilities are required to apply best available control technology for PM consistent with 40 CFR 52.21 (J).

The applicant proposes to utilize two Ducon wet venturi-absorber scrubbing systems to collect particulate and gaseous pollutants from the phosphate rock dryers. Particulate emissions from transfer points are proposed to be enclosed and eventually vented to a dust collection system. The captured PM emissions from the dryers will be exhausted to a Centrifield wet scrubber.

The design outlet rate for the Ducon scrubbing system as indicated by the supplier is 0.022 gr/DSCF. Based on an estimated inlet concentration of 12.0 gr/DSCF this is equivalent to a collection efficiency of 99.82 percent for the system. The design outlet rate for the Centrifield scrubber is listed as 0.022 gr/DSCF by the manufacturer of the control device. Based on an estimated inlet grain loading of 7.8 gr/DSCF this is equivalent to a col-

lection efficiency of 99.71 percent for the Centrifield scrubber. The total particulate emission from the phosphate rock dryers using the aforementioned emission rates is estimated to be 22.93 lb/hr or 85.4 tons/yr (refer to Table 1). This emission rate compares favorably with the 0.04 lb PM per ton of material proposed New Source Performance Standard for phosphate rock dryers. Using the above emission rate, particulate emissions from the proposed phosphate rock dryers for 590.3 tons/hr of material processed (wet basis) are 23.61 lbs/hr.

Also proposed for construction is a dry rock storage facility consisting of eight storage silos with a storage capacity of 3,750 tons. The silos will be arranged in two bays of four silos each centered over two enclosed reclaim belt conveyors which load the rail car transfer stations. An enclosed dry product conveyor of 600 tons per hour capacity (from the rock dryers) will deliver dry rock to a distribution chute and discharge to an enclosed reversible conveyor belt. The reversible belt will supply either one of two tripper conveyors which traverse the length of each bank of silos. All transfer points in the loading system that lead to the tripper conveyors are proposed to be enclosed and ventilated with exhaust hoods to prevent PM emissions. Silo discharge gates to the reclaim conveyors will also be enclosed with fugitive PM collection hoods to prevent escape of particulate matter at the base of the silos. All active transfer points will be enclosed and ducted to scrubbers. A schematic of the silo storage and reclaim fugitive dust control system is given in Figure 1. The outlet grain loading for the Centrifield scrubbers as listed by the manufacturer is 0.022 gr/DSCF. The collection efficiency of the Centrifield scrubbers is estimated to be greater than 99.7 percent. This is comparable to the collection efficiencies for other control devices such as fabric filters and centripetal vortex contact scrubbers.

The two dry rock loading stations at Duette Mine are proposed to be installed with wet Centrifield scrubbers. Each dry rock

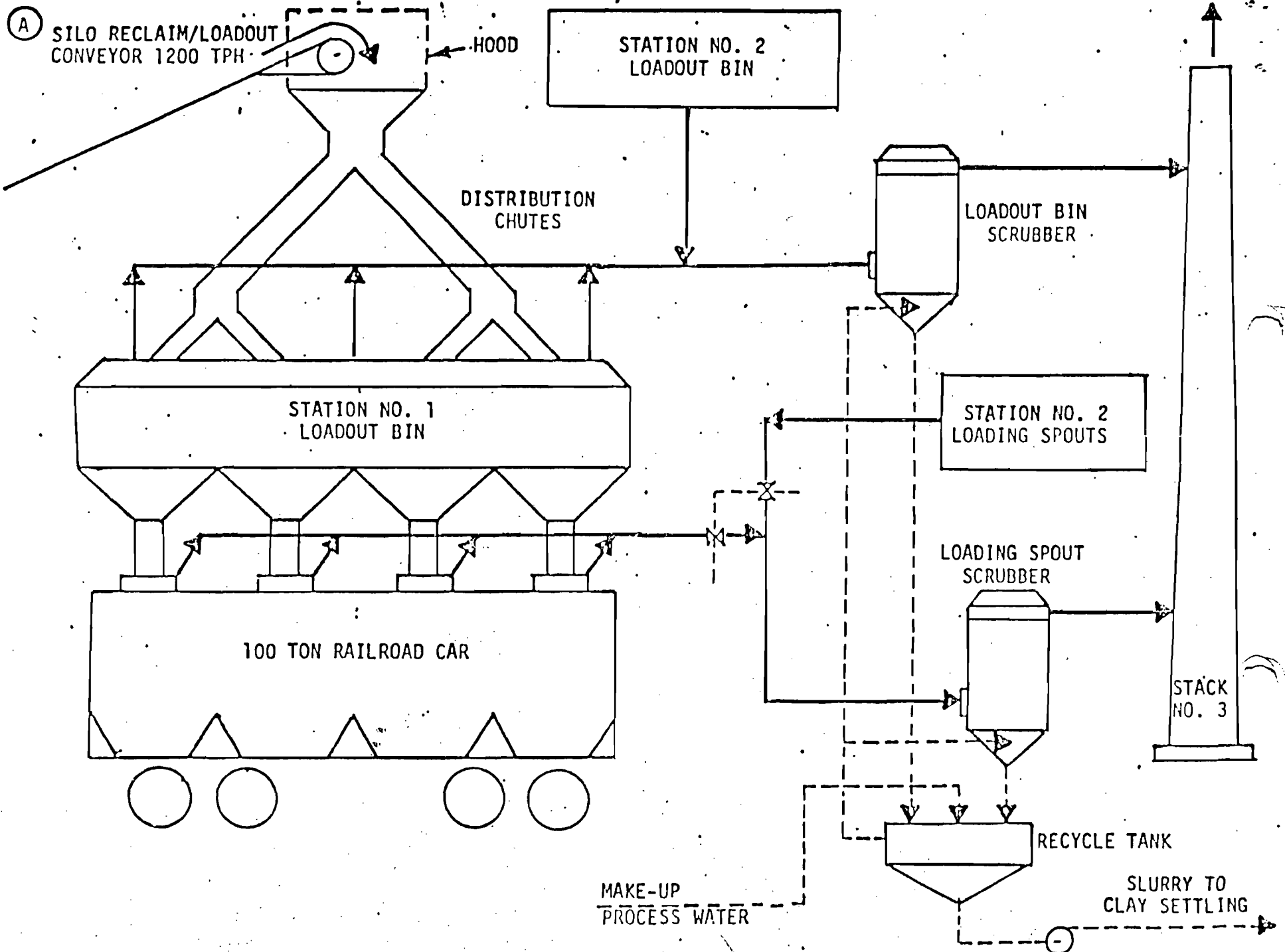


Figure 2. Day pack loading fugitive dust control system

reduce emissions from these areas to levels approximating preconstruction conditions.

The storage piles at Duette Mine will be loaded with a movable double wing stacker. The material loaded to the pile will essentially be saturated with excess moisture. The inherent nature of the storage materials is expected to contribute to an overall estimated control efficiency of 38.4 percent. This estimate was based on emission factors developed from the expanded methodology provided in Table 2, Technical Guidance Document EPA 450/3-77-010. No external controls are projected to be required.

NO_x

The two primary sources of nitrogen oxide emissions are 1) the Oil Fired Package Boiler and 2) the two phosphate rock dryers. Nitrogen oxides generated by mobile sources such as haul trucks, etc., are not subject to PSD review.

The control of nitrogen oxide emissions in boilers is generally performed by combustion modification techniques. However, recently some developmental work has been done on flue gas treatment techniques. The applicant however proposes to utilize neither one of the above techniques to reduce NO_x emissions from the 3.99 MMBTU/ hr package boiler but intends to rely solely upon the use of low nitrogen distillate fuel oil instead of residual fuel oil containing 0.4 percent nitrogen by weight. Estimates indicate the use of distillate fuel oil will reduce NO_x emissions by as much as 72.5 percent over emissions as calculated by AP-42 techniques from firing the residual fuel oil originally proposed by the applicant.

The control technique proposed for the reduction of NO_x emissions from the phosphate rock dryers is use of low nitrogen (0.3 percent nitrogen weight) Number 6 residual fuel oil and low NO_x burners. Also, some control of NO_x is expected when the dryer off-gases pass through wet scrubbing devices that have been designed for efficient removal of sulfur dioxide. Since no estimates are available for reduction in NO_x emissions obtained by the latter two techniques for phosphate rock dryers, a total of 32.6 percent reduction in NO_x emissions was estimated by the applicant due to

the use of low nitrogen fuel and an allowable NO_x limit of 0.32 lb/MMBtu was proposed. EPA disagrees with the proposed BACT for NO_x . The NSPS limit for industrial boilers firing liquid fuels is 0.30 lb/ NO_x /MMBtu. Fuel bound NO_x formation from the dryers will be minimized through use of low nitrogen fuel. Further, dryers which require lower gas temperatures than boilers need not have higher thermal NO_x formation than occurs in boilers. Therefore, a well operated dryer should not emit greater NO_x than an industrial boiler. Finally, no justification for a lower limit for NO_x from rock dryers could be found and BACT for NO_x from the dryers is determined to be 0.3 lb/MMBtu. The combination low nitrogen fuel and low NO_x burners are capable technology for meeting the limit.

B. Increment Analysis

The applicant is required to demonstrate that the proposed source does not cause or contribute to a violation of any maximum allowable increments consistent with paragraph (1) of the PSD regulations. Increments have been defined for PM and SO_2 . However, SO_2 impacts from the package boiler and rock dryers (44.4 tons/yr) were determined to be less than the significance levels defined in the preamble to the 1978 PSD regulations (43 FR26398). For this reason, refined air quality analysis is not required. The results of this analysis are summarized in Table 2. Therefore only the increment analysis for PM is required.

The applicant used the EPA approved Air Quality Display Model (AQDM) for evaluating long-term air quality effects contributed by the proposed source. Meteorological input was represented by a five year period measured at the Tampa National Weather Service (NWS) Station. Modeling of the emissions from the proposed construction was performed in conjunction with 33 other increment consuming sources listed in Table 3. Annual air quality effect of increment consuming sources was determined for maximum allowable annual emission rates of all sources for comparison with the allowable annual mean PSD increment of 19 micrograms per cubic meter (refer to Table 4).

Table 2
SO₂ Significance Test

<u>Averaging Time</u>	<u>PSD Significance Level</u>	<u>Source Impact</u>	<u>Method of Estimation</u>
Annual	1	0.2	AQDM
24-Hour	5	2.3	PTMTP-W
3-Hour	25	5.2	Larsen's Technique*

* Determined from 24-hr concentration using factors listed in Volume 10, Air Quality Maintenance Guideline (Larsen's Technique). Note that monitoring data analysis verified the validity of the technique for this source.

TABLE 3. INTERACTIVE SOURCE LIST

NEDS No.	Source Name	UTM Coordinates		Ht. (ft)	Diam. (ft)	Temp. °F	Flowrate (ACFM)	Allowed Particulates (lb/hr)	Operational Hours		
									Hours Day	Days Week	Weeks Year
1800-102-1	Borden - Rock Dryer	394.7	3069.6	100	4.0	210	90,000	42.32	24	5	52
1800-102-2	Borden - Dry Rock Storage	394.7	3069.6	27	3.1	75	18,000	42.32	17.3	5	52
1800-102-3	Borden - Dry Rock Shipping	394.7	3069.6	26.5	1.1	70	18,000	50.44	5.8	5	52
1800-50-1	S.I. Lime - Bulk Terminal	362.9	3084.7	60	2.0	95	1,000	31.83	8	6	52
1800-8-44	Gardinier - Ammonia Phosphate Plant	362.9	3082.5	80	3.0	130	20,000	16.2	22	7	52
1800-8-45	Gardinier - Vessel Loading Facility	363.2	3082.3	3	2.3	72	16,000	40.0	24	1.5	52
1800-50-5	Chloride - Lead Oxide Transfer System	361.8	3088.3	40	1.5	125	5,500	12.88	24	5	50
1800-50-6	Chloride - Lead Oxide Kettle	361.8	3088.3	40	1.5	125	5,438	12.88	24	5	50
1800-29-6	Nitram, Inc. - Prill Tower No. 2	363.1	3089.0	200	22.6	90	150,000	27.28	16	7	50
3680-56-5	IMC Prairie - No. 4 Raymond	403.0	3087.0	65	2.0	140	6,300	19.2	24	5	52
3680-57-4	Conserv Chem. - Granulator	398.4	3084.2	211	3.2	180	35,000	30.98	24	7	52
3680-57-4	Conserv Chem. - Dryer	398.4	3084.2	201	3.52	140	44,000	31.41	24	7	52
3680-57-4	Conserv. Chem. - Sizing	398.4	3084.2	172	2.5	150	16,000	31.35	24	7	52
3680-52-15	C.F. - Phosphate Rock Unloader to Silos	408.2	3082.9	45.3	4.5	77	37,000	41.89	24	7	52
3680-55-23	Agrico - GTSP Production	407.9	3071.0	140	9.0	107	156,000	49.6	22	7	52

TABLE 3. (Continued)

NEDS No.	Source Name	UTM Coordinates		Ht. (ft)	Diam. (ft)	Temp. °F	Flowrate (ACFM)	Allowed Particulates (lb/hr)	Operational Hours		
									Hours Day	Days Week	Weeks Year
3680-59-24	New Wales - Bag Collector AFI Shipping	396.7	3079.4	120	8.0	125	110,000	40.41	24	7	48
3680-59-25	New Wales - Limestone Storage	396.7	3079.4	50	1.0	80	4,000	33.33	24	7	48
3680-59-26	New Wales - Silica Storage	396.7	3079.4	18	1.0	77	1,500	14.99	24	7	52
3680-59-27	New Wales - Granulator Plant for AFI	396.7	3079.4	172	8.0	120	130,000	36.8	24	7	50
3680-59-28	New Wales - AFI Silos	396.7	3079.4	116	1.0	77	1,600	36.2	24	7	52
3680-59-29	New Wales - Railroad & Truck Shipping	396.7	3079.4	40	3.0	80	12,000	41.88	24	7	50
3680-59-30	New Wales - Soda Ash Unloading	396.7	3079.4	61	.66	77	1,500	16.76	8	7	50
3680-59-31	New Wales - Soda Ash Conveying	396.7	3079.4	45	1.0	77	1,500	15.00	8	7	50
3680-59-32	New Wales - A Kiln Cooler	396.7	3079.4	87	1.5	325	30,000	15.00	24	5	50
3680-59-33	New Wales - B Kiln Cooler	396.7	3079.4	87	1.5	325	30,000	15.00	24	7	50
3680-59-34	New Wales - Multifos Sizing	396.7	3079.4	17	1.25	225	10,000	23.00	24	7	50
3680-59-35	New Wales - Multifos Class. System	396.7	3079.4	57	1.25	175	6,000	18.44	24	7	50
3680-59-36	New Wales - Dryer & 2 Kilns	396.7	3079.4	172	4.5	100	43,000	18.41	24	7	50
3680-59-37	New Wales - DAP/MAP Loadout	396.7	3079.4	N/A	N/A	80	18,500	38.6	24	7	52
3680-59-38	New Wales - AFI Storage and Loading	396.7	3079.4	65	1.0	85	8,000	40.35	24	7	52

TABLE 3. (Continued)

NEDS No.	Source Name	UTM Coordinates		Ht. (ft)	Diam. (ft)	Temp. °F	Flowrate (ACFM)	Allowed Particulates (lb/hr)	Operational		
									Hours Day	Days Week	Hours Weeks Year
3680-50-38	USS Agri-Chem. - DAP Facility	413.2	3086.3	133	7.0	90	110,000	34.35	24	7	52
3680-50-39	USS Agri-Chem. - DAP/MAP Storage & Loading	413.2	3086.3	74	2.0	80	30,000	43.12	4	7	
2540-29-1	Manatee Energy - Splitter Boiler	346.6	3057.7	64	2.0	550	5,000	1.25	24	7	50
2540-29-1	Manatee Energy - Splitter Furnace	346.6	3057.7	100	3.0	550	9,100	5.75	24	7	50
1680-11-1	American Orange - Citrus Peel Dehydrator	419.8	3047.3	34.5	10.0	185	27,000	10.12	24	6	28
1680-11-2	American Orange - Citrus Pulp Dehydrator	419.8	3047.3	35.5	13.3	185	45,000	16.52	24	6	28

TABLE 4. CLASS II INCREMENTS

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Maximum Allowable Increases (Increments) Micrograms/Meter³</u>
Sulfur Dioxide (SO ₂)	Annual Mean	20
	24 - Hr.	91 ^a
	3 - Hr.	512 ^a
Particulate Matter (PM)	Annual Mean	19
	24 - Hr.	37 ^a

^a The applicable maximum allowable increase may be exceeded during one such period per year at any receptor site.

loading station consists of a compartmented 100 ton washing bin on load cells as illustrated in Figure 2. The bins will be loaded with enclosed, variable speed conveyor belts through hooded hoppers and a distribution chute system. Each bin will discharge through eight spouts into the hatches of a 100 ton railroad hopper car. Fugitive PM emissions at all transfer points are designed to be captured by collection systems. The captured emissions are ducted to Centrifield wet scrubbers. The outlet grain loading of the scrubbers is listed as 0.022 gr/DSCF by the manufacturer. The collection efficiency of the scrubbers is estimated to be 99.72 percent. This is comparable to the collection efficiencies of 99.7 percent listed for alternative control devices such as the fabric filter and the wet centripetal vortex contact scrubber.

The oil fired package boiler will use distillate fuel as a means of limiting PM emissions. The boiler PM emissions are estimated to be 0.057 lb/hr or 0.25 tons per year. EPA agrees that this rate meets BACT for PM for the boiler and no additional controls are required.

The applicant estimates that mining and reclamation activities will disturb approximately 3 acres of land on any given day. However, since the material handled is in a relatively moist condition at the time it undergoes active disturbance, a limited amount of fugitive emissions will be generated.* As the mining and reclamation activities constantly move into new areas, disturbed ground surfaces are left behind which contribute to fugitive dust emissions. It is estimated that this would contribute up to 43.1 tons per year of fugitive dust emissions. Control measures such as water spraying in cases like these are not quite effective due to accessibility problems of these areas by light vehicles and the subsequent generation of fugitive dust by these vehicles even if such spraying is possible. A proposed long term measure suggested by the applicant is the introduction of interim vegetative cover, i.e., grass, as soon as practical after completion of activities which disturb the ground surface. The new vegetation will encourage establishment of more permanent natural grasses and plants and help to

*Verified by EPA-450/3-78-030 "Air Pollution Control Techniques For The Phosphate Rock Industry." No fugitive emissions are anticipated from quarry operations.

The results indicated the annual effect of all increment consuming sources at the point of maximum impact to be 1.4 micrograms per cubic meter, about 8 percent of the increment. Estimated annual effects of the increment consumers at the property boundaries ranged from 0.4 to 0.7 micrograms per cubic meter. Effect at the nearest population groups - Keentown and Duette was 0.5 and 0.4 micrograms per cubic meter respectively.

Short-term air quality effects were computed from all allowable source emission rates listed in Table 1 using the PTMTP-W computer model and worst case (highest, second highest concentration) meteorology. Worst case meteorology was determined from CRSTER computer code analysis of five years of hourly meteorological data. All major upwind increment consuming sources or source groupings were included in the model runs to identify maximum highest, second highest short-term concentrations within the proposed source's impact area irrespective of property boundaries and for two locations on property boundaries.

Short-term effects of all increment consuming sources at the worst two points of highest, second highest concentrations were found to be 12.9 and 9.8 micrograms per cubic meter. Increment consumption was therefore 12.9 micrograms per cubic meter or 35 percent of the allowable 37 micrograms per cubic meter (refer to Table 3) PSD increment at the point of maximum concentration. Increment consumption at the worst two property boundary locations were found to be 8.1 and 5.2 micrograms per cubic meter. Further analysis of short-term increments considering source interaction is determined to be unnecessary on the basis that the proposed source's impact area is small (~5 kilometers) relative to the distance from other sources (~20 kilometers) and no potential for serious interaction exists. The analysis adequately demonstrates preservation of the short term increments.

It must be noted that concentrations of particulate matter attributable to the increase in emissions from construction and other temporary activities were excluded from increment consumption in accordance with paragraph (iii) of 40 CFR 52.21 (j).

Further, fugitive PM emissions from rock handling, etc. which do consume increment were not considered in the modeling analysis consistent with current Region IV policy. Region IV policy currently does not require modeling for fugitive PM because of the controversy over the accuracy of currently available fugitive modeling techniques. In addition, fugitive dust emissions were treated as not consuming increment in accordance with PSD regulations.

C. NAAQS Analysis

The applicant must perform a NAAQS analysis to demonstrate that emissions of PM and NO_x do not threaten the NAAQS ceilings for these pollutants. As explained previously the source is exempt from refined air quality analysis of SO₂ emissions.

The NAAQS analysis is similar to the increment analysis discussed above. Ambient concentrations were determined for annual and 24 hour average conditions using the AQDM and a combination of CRSTER PTMTP-W computer runs, respectively, for several locations of worst effect. The grid spacing was 0.1 kilometers. The data presented in Table 5 indicates that NAAQS for these pollutants will not be violated as a result of the operation of the proposed facility. This assessment was performed by combining the calculated air quality levels contributed by the proposed source and surrounding sources to existing background levels. The background levels for TSP were obtained by measurement from six monitors located in the general vicinity of the proposed project location.

D. Soils, Vegetation, Visibility

The applicant has stated that no adverse impacts on soils or vegetation will result from the operation of the proposed new source. Any effect at all to the nearby agricultural lands, e.g., citrus, grazing pasture, etc., is expected to be beneficial due to the nutritive values of the phosphate and sulfur compounds contained in the particulate matter emissions. Plumes from the stacks will contain varying degrees of heated water vapor and will dissipate within a relatively short distance from the stack. Although plumes are aesthetically unattractive, in this case the landscape is not viewed as characteristically scenic and therefore the plume is not expected to detract from aesthetic values.

TABLE 5. AMBIENT AIR STANDARDS COMPARED TO CALCULATED CONCENTRATIONS AND BACKGROUND

Pollutant/Averaging Time	Background ($\mu\text{g}/\text{m}^3$)	Maximum Calculated Concentrations ($\mu\text{g}/\text{m}^3$) ^d	Total Concentrations	NAAQS ($\mu\text{g}/\text{m}^3$)
TSP				
- 24 hr	110.4 ^b	12.8	123.2	150
- annual	29.2 ^a	1.2	30.4	60
NO ₂				
- annual	20 ^c	1.0	21.0	100

^a Based on the measured highest annual geometric mean for 1977-1978.

^b Based on the highest second highest 24-hr measurement for 1977-1978.

^c Yearly maximum annual average concentrations measured 6 miles from the source from 1974-1978 of 20 $\mu\text{g}/\text{m}^3$ was utilized as a conservative estimate of NO₂.

^d Includes concentrations contributed by surrounding sources listed in Table II.

E. Growth Impacts

Vehicular travel on paved and unpaved roadways to and from the proposed source is expected to cause fugitive dust emissions. It is estimated that 325 employee vehicles and a smaller number of service and delivery vehicles will be using the paved access road to the plant. The construction work force during the construction period will also contribute to vehicular fugitive dust emissions. Population growth and commercial activities are not expected to develop in the immediate area of the mine.

F. Class I Area Analysis

No Class I area is within a radius of 100 Km of the proposed source. The Chassahowitzka National Wilderness Area is located approximately 130 Km to the north west of the proposed source. Approximately 200 Km to the south east is the Everglades National Park. Considering the modeling results which indicated acceptable ambient concentrations in the vicinity of the plant and the additional dispersion which will occur over this distance, no adverse impact on these Class I areas is expected from the proposed construction.

V. Conclusions

EPA Region IV proposes a preliminary determination of approval for construction of the phosphate rock mining facilities at Estech General Chemicals Corporation's Duette Mine in Manatee County, Florida proposed in their application received August 16, 1979. This approval is based on the information provided in their application and additional information received in correspondence dated August 21, 1979, January 22, 1980, and March 10, 1980. The conditions set forth in the permit are as follows:

1. The proposed construction will be in accordance with the capacities and specifications stated in the application. This specifically includes:
 - a) Fluid bed phosphate rock dryers (2):
 - Maximum capacity - 262 tons/hr each (dry basis) or 290 tons/hr each (wet basis)
 - NO_x control technology - low NO_x burners
 - SO₂ control technology - wet dual alkaline scrubbers/low sulfur fuel
 - Type of fuel used - Number 6 residual oil with nitrogen and sulfur content not to exceed 0.3 and 1 percent by weight, respectively.

TABLE 6 . ALLOWABLE EMISSION RATES

Facility	PM	NO _x	SO ₂
Phosphate Rock Dryers (2)	22.93 [*] lbs/hr and 0.098 lb/MMBTU heat input	71 lb/hr and 0.30 lb/MMBTU heat input	8.60 lbs/hr and .037 lb/MMBTU heat input
Package Boiler	0.057 lbs/hr and 0.014 lbs/MMBTU heat input	0.624 lb/hr and 0.16 lb/MMBTU heat input	2.82 lb/hr and 0.71 lb/MMBTU heat input
Dry Rock Storage Silos	8.74 lbs/hr		
Dry Rock Loading Station	5.77 lbs/hr		

* Corresponds to 0.04 lb TSP/Ton of Phosphate Rock Feed (Wet Basis)

- b) Package boiler (1):
- Capacity - 100 HP
 - Maximum heat input - 3.99 MMBTU/hr
 - Type of fuel used - distillate oil with sulfur content not to exceed 0.7 percent by weight, respectively.
2. The allowable emissions limits for emission sources of PM, NO_x and SO₂ are listed in Table 6.
 3. Compliance with each allowable emissions limit listed in condition 2 will be determined by performance tests. Operation during these tests will be within 10% of the rated maximum capacity. Tests will be conducted with EPA standard methods and in accordance with the applicable provisions of 40 CFR 60.8. Testing of emissions will be carried out isokinetically with a minimum sampling volume of 30 dscf and a minimum sampling time of 60 minutes for each run and three runs per test. NO₂ grab samples will be obtained at 15 minute intervals.
 4. The applicant is required to install, calibrate, maintain and operate a continuous monitoring system, and record the output from the system, for measuring the NO_x content of the flue gases from the phosphate rock dryers.
 5. The following measures will be complied with for fugitive PM and dust emissions:
 - a) Speed limit on unpaved roads is not to exceed 20 miles per hour. In addition, unpaved roads are to be sprayed with water and where practical and environmentally safe, watering should be supplemented with dust suppressant chemicals.
 - b) Speed limit on paved roads is not to exceed 30 miles per hour.
 - c) Exposed areas due to mining and reclamation activities are to be revegetated as soon as possible or within one year from the time overburden is initially spread and graded.
 - d) The top surface (to a depth of 6 inches) of material storage piles must be maintained at a moisture content of at least 13 percent.
 6. The applicant will comply with the requirements and provisions of the attached general conditions.

7. The phosphate rock dryers will not operate greater than 7446 hours per year (365 day consecutive period) or in excess of the capacity and fuel limits listed in condition 1. To show compliance with these restrictions a log will be maintained daily which indicates for each dryer cumulative hours of operation for each preceding 365 day period and the time of each unit startup and shutdown. Unit startup is defined as the point at which combustion commences. In the dryer log, entries of startup times will be made prior to unit startup. The log also will contain a record of sulfur and nitrogen contents of all fuel oil fired in the dryers and the sulfur content of the fuel oil fired in the package boiler.

GENERAL CONDITIONS

1. The permittee shall notify the permitting authority in writing of the beginning of construction of the permitted source within 30 days of such action and the estimated date of start-up of operation.
2. The permittee shall notify the permitting authority in writing of the actual start-up of the permitted source within 30 days of such action and the estimated date of demonstration of compliance as required in the specific conditions.
3. Each emission point for which an emission test method is established in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source. The permittee shall notify the permitting authority of the scheduled date of compliance testing at least thirty (30) days in advance of such test. Compliance test results shall be submitted to the permitting authority within forty-five (45) days after the complete testing. The permittee shall provide (1) sampling ports adequate for test methods applicable to such facility, (2) safe sampling platforms, (3) safe access to sampling platforms, and (4) utilities for sampling and testing equipment.
4. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of two (2) years from the date of recording.
5. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall provide the permitting authority with the following information in writing within five (5) days of such conditions:
 - (a) description of noncomplying emission(s),
 - (b) cause of noncompliance,
 - (c) anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance,
 - (d) steps taken by the permittee to reduce and eliminate the noncomplying emission,and
 - (e) steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of this report does not constitute a waiver of the emission limitations contained within this permit.

6. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, modifications to the permit may then be made by the permitting authority to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations specified herein.
7. In the event of any change in control or ownership of the source described in the permit, the permittee shall notify the succeeding owner of the existence of this permit by letter and forward a copy of such letter to the permitting authority.
8. The permittee shall allow representatives of the State environmental control agency or representatives of the Environmental Protection Agency, upon the the presentation of credentials:
 - (a) to enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;
 - (b) to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Act;
 - (c) to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
 - (d) to sample at reasonable times any emission of pollutants;and
 - (e) to perform at reasonable times an operation and maintenance inspection of the permitted source.
9. All correspondence required to be submitted by this permit to the permitting agency shall be mailed to the:

Chief, Air Facilities Branch
Air and Hazardous Materials Division
U.S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30308

10. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

The emission of any pollutant more frequently or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

BEFORE THE UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REGION IV

In Re: Estech, Inc. -)
Prevention of Significant)
Deterioration Construction)
Permit PSD-FL-036)
_____)

REQUEST FOR EXTENSION OF TIME
TO COMMENCE CONSTRUCTION

Estech, Inc., pursuant to 40 C.F.R. § 52.21(r)(2), hereby requests an extension of time to commence construction and in support thereof states:

Background

1. On February 2, 1982, Estech General Chemicals Corporation received a prevention of significant deterioration construction permit No. PSD-FL-036, dated January 29, 1981 (PSD Permit), authorizing construction of certain facilities at the company's proposed phosphate rock mine and processing plant to be located in Manatee County, Florida (Duette Mine). The PSD Permit (Exhibit A) was issued pursuant to Section 165 of the Clean Air Act and 40 C.F.R. § 52.21. (Estech General Chemicals Corporation subsequently changed its name to Estech, Inc. and will be referred to in this Request as "Estech.").

2. By letter dated April 1, 1982 (Exhibit B), counsel for Estech advised the Regional Administrator of the United States Environmental Protection Agency-Region IV (EPA) that Estech would not be able to commence construction on the permitted air emission facilities within eighteen (18) months from the date of receipt of the PSD Permit as required by Section 52.21(r). By letter dated April 20, 1982 (Exhibit C), EPA requested the submittal of this Request together with supporting documentation.

Reasons for Request

(a) NPDES/NEPA Requirements

3. By letter dated May 15, 1978, EPA determined that the Duette Mine was a "new source" as defined in Section 306 of the Clean Water Act (33 U.S.C. § 1316) and was subject to the environmental review requirements of the National Environmental Policy Act of 1969 (42 U.S.C. § 4332). EPA issued a draft environmental impact statement (EIS) [Document No. EPA 904/9-79-044] on the Duette Mine project in October, 1979. A public hearing on the draft EIS was held on November 28, 1979. EPA issued a final EIS [Document No. EPA 904/9-80-051] on the Duette Mine project in September, 1980.

4. Estech filed its application for a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act (33 U.S.C. § 1342) with EPA on January 5, 1979. A draft NPDES permit was prepared by EPA and was included as part of the draft EIS (at pp. 181-188). A public hearing on the draft NPDES permit was held on September 10, 1980. A revised draft NPDES permit was included in the final EIS (at App. 8.1.).

5. Concurrently with the processing of the federal environmental review and NPDES permitting process, Estech was engaged in state administrative licensing proceedings to obtain necessary construction permits from the State of Florida Department of Environmental Regulation (DER). In addition to construction permits required by applicable state law, Estech sought the state certification of the federal NPDES permit required by Section 401 of the Clean Water Act (33 U.S.C. § 1341). As part of the state administrative proceedings, Estech agreed with DER to make certain physical changes in the proposed Duette Mine project that would result in a revised water management program. These physical changes are described in a letter from counsel for Estech to Ms. Jean Tolman of EPA, dated November 13, 1981 (Exhibit D). By final order entered on May 28, 1982

(Exhibit E), the Secretary of DER determined that the state construction permits and the state certification would be issued to Estech. Manatee County, a participant in the state-level proceedings, has filed a notice of appeal of the Secretary's final order in the Florida First District Court of Appeal (Exhibit F). ManaSota-88, Inc., has joined in this appeal.

6. By letter dated February 17, 1982 (Exhibit G), Mr. Howard Zeller, then EPA Acting Assistant Regional Administrator for Policy and Management, determined that the proposed revisions to the Duette Mine project made it necessary for EPA to prepare a supplement to the final EIS to address the impacts, if any, that may be associated with the changes. The supplement to the final EIS will be prepared by Conservation Consultants, Inc. (CCI) in accordance with the "third party" procedure. In this procedure, a private consulting firm prepares the environmental review document for and under the direction of EPA. Costs of preparation are borne by the applicant. CCI has prepared a final plan of study for the preparation of the supplement to the final EIS (Exhibit H). The schedule set forth in the plan of study estimates that the supplement will be complete in December, 1982.

7. Estech has been advised by representatives of EPA that the agency intends to reopen the public comment period on the draft NPDES permit to allow limited additional comments on issues relating to the June, 1981 state-level water quality reclassification of the Manatee River (the receiving stream for any wastewater discharges from the Duette Mine). It is Estech's understanding that the reopened comment period will run through the close of the public comment period on the draft supplement to the final EIS.

8. Under current law, Estech may not commence construction at the Duette Mine (absent extraordinary relief from the Regional Administrator of EPA) until the NEPA en-

vironmental review process is complete and the final NPDES permit has been issued. See 40 C.F.R. § 122.66(c)(4)(i).

(b) Local Permitting

9. Under Chapter 380, Florida Statutes (1981), development of regional impact (DRI) approval is required for any project (such as the Duette Mine) with potential multi-county impact. The initial DRI decision rests with the local government (i.e., Manatee County), which is required to receive and consider the report and recommendations of the regional planning agency (i.e., Tampa Bay Regional Planning Council or TBRPC).

10. Estech's Duette Mine site property is zoned "A General Agricultural District." Under the Manatee County zoning ordinance in effect in 1978 (Zoning Ordinance), mining is permitted in this zoning following approval by the County of a special exception and a master mining plan, and subsequent issuance of an operating permit. If the mining project constituted a DRI, the Zoning Ordinance provided for simultaneous processing of the DRI, the special exception, and the master mining plan.

11. On May 5-9, 1978, Estech filed applications with Manatee County pursuant to the Zoning Ordinance for approval of a special exception, a master mining plan, and a development of regional impact for its Duette Mine. The Tampa Bay Regional Planning Council and the Manatee County Planning Commission recommended that the applications be approved with conditions.

12. On August 16, 1979, the Board of Commissioners of Manatee County overruled the recommendations of the TBRPC and the Manatee County Planning Commission, and denied the special exception, the master mining plan, and the DRI. Pursuant to Chapter 380, Florida Statutes, Estech appealed this decision to the Florida Governor and Cabinet, sitting as the Land and Water Adjudicatory Commission (LWAC).

13. On October 15, 1980, the LWAC entered a final order approving Estech's applications for special exception, master mining plan, and DRI.

14. On November 7, 1980, Manatee County appealed the LWAC order to the Florida Second District Court of Appeal.

15. On August 5, 1981, the Second District Court of Appeal affirmed in its entirety the order of the LWAC granting Estech its special exception, master mining plan, and DRI Approval. On January 21, 1982, the Supreme Court of Florida declined to review the order of the Second District Court of Appeal.

16. In 1981, while review of the LWAC order was pending before the Second District Court of Appeal, Manatee County enacted major changes in its land use regulations.

(a) On April 30, 1981, Manatee County enacted Ordinance No. 81-4, the Manatee County Comprehensive Zoning and Land Development Code (New Zoning Code). The New Zoning Code does not contain master mining plan and operating permit provisions comparable to those of the Zoning Ordinance, nor does it allow mining in an A General Agricultural District. To allow mining activities, the property must be rezoned to EX Extraction District.

(b) Effective November 6, 1981, Manatee County enacted Ordinance No. 81-22, the Manatee County Mining and Reclamation Ordinance (Mining Ordinance), which contains master mining plan and operating permit provisions that are significantly more burdensome than the comparable provisions of the Zoning Ordinance.

(c) In connection with these changes, Manatee County enacted a series of three moratorium ordinances prohibiting the acceptance or processing of applications for operating permits or other mining related applications. These included Ordinance No. 81-6, a 90-day moratorium adopted on April 21, 1981; Ordinance No. 81-14, a 60-day moratorium adopted July 21, 1981; and Ordinance No. 81-18, a

60-day moratorium adopted September 15, 1981 (Exhibits I, J, and K respectively). The effect of these moratoria was to prevent the processing of any operating permit applications from late April, 1981, until on or about November 21, 1981.

17. On December 11, 1981, Estech filed an operating permit application with Manatee County and tendered the \$25,000 filing fee [Exhibit L (transmittal letter only)]. On December 14, 1981, Manatee County rejected the filing (Exhibit M).

18. On December 15, 1981, Manatee County enacted Ordinance No. 81-24, a fourth moratorium ordinance prohibiting the accepting, receiving, filing, processing or handling of any applications for mining approval in the watershed of Lake Manatee for a period of 90 days (Exhibit N). One purpose of this fourth moratorium ordinance was to give Manatee County time to consider and enact an ordinance creating a new zoning classification (Special Treatment District of "ST District") applicable to all property located in the watershed of Lake Manatee.

19. Ordinance No. 82-2, the ST District Ordinance, purports to rezone all property in the watershed of Lake Manatee so as to subject it to the special treatment district zoning regulations. Estech's Duette Mine site lies largely within the Special Treatment District.

20. On December 23, 1981, Estech requested written clarification from Manatee County as to the applicability to the Duette Mine of the various ordinances which had been enacted subsequent to approval of its zoning special exception and master mining plan under the Zoning Ordinance. By letter dated February 4, 1982 (Exhibit O), Manatee County's Phosphate Mining Coordinator advised Estech of the preliminary determination that both the Mining Ordinance (effective November 6, 1981) and the ST District rezoning (effective January 11, 1982) would apply to the Duette Mine and that "zoning approval" under the ST District Ordinance would be required before an operating permit application could be

received and processed. Estech vigorously disputes the applicability of these ordinances to the Duette Mine. Estech contends that it has vested rights to zoning pursuant to the previously issued special exception and that it is entitled to apply for and receive an operating permit under the Zoning Ordinance in effect on October 15, 1980, the date of the LWAC final order.

21. On March 15, 1982, Manatee County adopted Ordinance No. 82-04, a fifth moratorium ordinance which prohibits the accepting, receiving, processing, handling or considering of any application for mining approvals in the watershed of Lake Manatee for a period of 180 days (Exhibit P). An exception from the fifth moratorium is provided for any applicant that "can demonstrate that the impacts of its particular proposed development on human health, safety, and welfare can be predicted with reasonable certainty on the basis of existing knowledge."

22. Estech refiled its application for an operating permit on March 18, 1982, and again tendered the \$25,000 filing fee [Exhibit Q (transmittal letter only)]. Manatee County rejected the operating permit application on the grounds that the fifth moratorium (Ordinance No. 82-4) prevents acceptance or processing of operating permit applications (Exhibit R).

23. Manatee County considered the applicability to Estech of the exception from the fifth moratorium at meetings of the Board of County Commissioners held on April 6, April 20, and May 4, 1982. At the meeting on May 4, 1982, Manatee County adopted a resolution declaring that the exception is not applicable to Estech (Exhibit S).

24. On May 6, 1982, Estech filed a Petition for Writ of Mandamus and Complaint for Declaratory Judgment in the Circuit Court for Manatee County seeking, inter alia, a judicial order requiring Manatee County to accept and process Estech's application for an operating permit. The case

is pending as Estech, Inc. v. Manatee County, et al., Case No. CA-82-916 (12th Jud. Cir. Ct.).

25. The Zoning Ordinance requires that any person who desires to carry out mining operations in Manatee County shall apply for and obtain an operating permit "before commencing operations." See Section VI., ¶ 16, § 3.3. It is unclear whether the issuance of an operating permit under the Zoning Ordinance is a prerequisite to the construction, as opposed to operation, of the air emission facilities that are the subject of the PSD permit in this case. The new Mining Ordinance provides that no pre-mining construction activities are authorized prior to issuance of an operating permit unless reviewed and approved by the county as part of master mining plan approval under the new Mining Ordinance. See Ord. No. 81-22, Part III.D.2.

Summary

26. The facts set forth in this Request demonstrate that the federal NEPA new source pre-construction review process and NPDES permitting activity will not be completed until several months after the expiration of the 18-month construction period established by the PSD Permit.

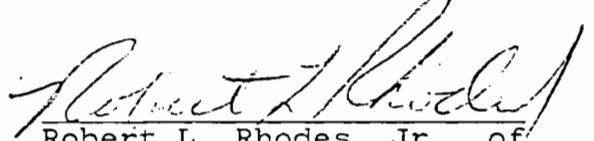
27. The facts set forth in this Request also demonstrate that Estech and Manatee County are in dispute as to the applicable local operating permitting and zoning requirements. Manatee County has refused on two occasions to accept Estech's operating permit application for review. Litigation designed to resolve certain of the threshold issues is currently pending. It is impossible to predict how long it will take for such litigation (including appeals) to be completed. In addition, assuming that Manatee County ultimately accepts the application for an operating permit, it is impossible to predict the length of the permit review and approval process. In light of the history of this project, it is reasonable to expect that the time frames involved will extend beyond the expiration of the 18-month time period established in the PSD Permit.

28. Estech has exercised due diligence and good faith efforts in its attempts to obtain all necessary pre-construction permits and approvals for the air emission facilities that are the subject of the PSD Permit. Despite these efforts, it will be impossible for Estech to commence construction on the facilities within the requisite 18-month time frame.

Request for Relief

WHEREFORE, Estech requests EPA to grant an extension of the time within which it must commence construction on the air emission facilities subject to PSD Permit No. PSD FL-036 until August 2, 1985.

Respectfully submitted,

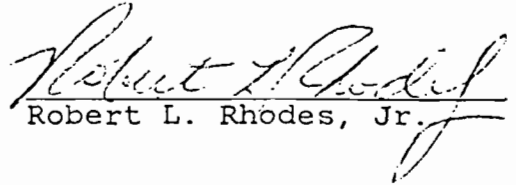


Robert L. Rhodes, Jr., of
HOLLAND & KNIGHT
Post Office Drawer BW
Lakeland, FL 33802
813/682-1161

Attorneys for Estech, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the foregoing document was sent by United States Mail, certified return receipt requested, postage prepaid to Mr. Charles R. Jeter, Regional Administrator, United States Environmental Protection Agency, Region IV, 345 Courtland Street, Atlanta, Georgia 30365 this 10th day of June, 1982.


Robert L. Rhodes, Jr.

Estech1-52682:25



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

AUG - 5 1982

REF: 4AW-AM

DATE: 8-11-82
FILE NO: 3668-76
FILE NO: _____
REF: _____
ROUTE TO: _____
RETURN TO: _____

Mr. Robert L. Rhodes, Jr.
Holland and Knight
P. O. Drawer BW
Lakeland, Florida 33802

Dear Mr. Rhodes:

This is in response to your June 10, 1982, request for an extension of Estech, Inc.'s. Prevention of Significant Deterioration (PSD) permit, which was issued on February 2, 1981. Specifically, you requested an extension of the "commence construction" deadline for Estech's proposed phosphate rock mine and processing plant to be located in Manatee County, Florida, until August 2, 1985. That date is three years beyond the original permitted expiration date.

We agree that Estech has been the recipient of several permitting delays. However, the burden of obtaining all of the necessary permits and licenses lies solely with Estech and is not the responsibility of EPA.

It is EPA's determination that Estech, Inc., has satisfactorily showed just cause for a permit extension, due mainly to regulatory delays extraneous to the PSD permitting process. Although it remains this Region's policy to discourage PSD permit extensions, due to the problems of increment reservation that are created by such actions, EPA agrees to allow, in this case, a permit extension to Estech, Inc., for an additional 18 months (February 2, 1984). By taking this position, the Region is able to discourage sources from requesting excessively long permit extensions and thereby tying up increment allocations unfairly, so as to prevent industrial growth from other companies in this and other areas.

As of the date of this letter, permission is hereby granted to Estech, Inc., extending its commence construction date to February 2, 1984. This letter should be attached to and become a binding part of the original PSD permit that was issued by this Agency on February 2, 1981.

If you have any questions concerning this matter, please contact Mr. James T. Wilburn, Chief, Air Management Branch, Air and Waste Management Division, EPA Region IV.

Sincerely yours,



Charles R. Jeter
Regional Administrator

cc: Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation

LAW OFFICES

HOLLAND & KNIGHT

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406 THIRTEENTH STREET WEST
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(813) 746-7107

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TAMPA, FLORIDA 33601
(813) 223-1621

600 MARYLAND AVENUE, S. W.
WASHINGTON, D. C. 20024
(202) 484-9090

PLEASE REPLY TO: Lakeland, Florida
June 3, 1983

CABLE ADDRESS
HND KNIGHT TPA
H&K MIA
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

Mr. Charles R. Jeter
Regional Administrator
United States
Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: Estech, Inc. - Proposed Duette Mine -
Draft NPDES Permit No. FL0036609

Dear Mr. Jeter:

On January 5, 1979, Estech, Inc. (then named Swift Agricultural Chemicals Corporation) filed an application for an NPDES permit in connection with the company's proposed Duette phosphate rock mine and beneficiation facility in Manatee County, Florida. At that time, the company proposed a conventional water management system that would have resulted in discharges to waters of the United States on a regular basis.

Subsequent discussions and negotiations with the State of Florida Department of Environmental Regulation in connection with administrative proceedings involving required state permits led Estech to propose to make revisions to its water management program. These revisions were described in detail in our letter (dated November 13, 1981) to Ms. Jean Tolman of EPA. In addition, Estech submitted a detailed explanation of the revised water management program to the administrative record on the NPDES permit by letter of Ronald J. McGregor, Environmental Engineer, dated December 1, 1982.

The conceptual water balance developed in connection with the revised water management plan demonstrated that the possibility of discharges to waters of the United States were extremely remote even under simulated worst case conditions. Estech had elected to proceed with the NPDES permitting process in order to obtain a federal permit that

Mr. Charles R. Jeter
June 3, 1983
Page 2

would authorize a discharge under these highly unlikely circumstances. Subsequent events have led Estech to conclude that such permitting efforts may no longer be necessary.

First, the Florida District Court of Appeal, First District, has recently affirmed the final order of the Secretary of the Department of Environmental Regulation which called for the issuance of state permits based upon the revised Estech water management program.

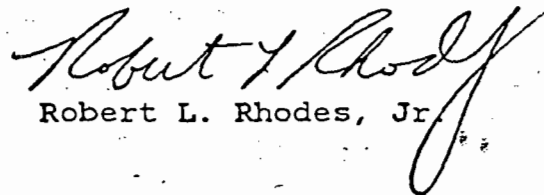
Second, Estech has now completed a design level detailed water balance analysis that confirms the findings set forth in the conceptual water balance referred to above. A copy of the design level water balance has been previously forwarded to your staff for review.

Under the circumstances, therefore, Estech requests your advice as to whether an NPDES permit is required for the construction and operation of Estech's proposed Duette mine and beneficiation facility in Manatee County, Florida.

Thank you very much for your cooperation.

Sincerely,

HOLLAND & KNIGHT



Robert L. Rhodes, Jr.

RLR, Jr/sah
0366800731CRJ:25
cc: Mr. Paul Traina
Mr. Mike McGhee
Ms. Andrea Zimmer
Ms. Jean Tolman
Craig Bromby, Esquire



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JUN - 7 1983

REF: 4WM-FP

Mr. John Oskam, Vice-President
Estech, Inc.
First Commercial Bank Building
410 Cortez Road, W.
Bradenton, FL 33507

Dear Mr. Oskam:

This letter is in response to the June 3, 1983, letter from Mr. Robert L. Rhodes, Holland and Knight, which outlined events that have occurred since Estech's filing of a new source National Pollutant Discharge Elimination System (NPDES) permit application in 1979.

Since the NPDES permit application was filed, Estech has proposed a revised water management program which would avoid discharges from the Duette Mine to the East and North Forks of the Manatee River. This conceptual revised water management program was evaluated in the Draft Supplement to the Environmental Impact Statement, with the conclusion that a discharge would be extremely remote even under the worst case conditions.

Since publication of the Draft Supplement to the EIS, Estech has completed a design level detailed water balance analysis. A review of your design also indicates no realistic expectation of discharge of mine wastewaters to the East or North Forks of the Manatee River.

If there is to be no point source discharge of pollutants to waters of the United States, no NPDES permit is required. Information available to the Environmental Protection Agency (EPA) through the EIS documents supports such a conclusion, and therefore, EPA does not consider this project, on the basis of that information, as one requiring an NPDES permit. In making this statement, it should be understood however, that if there is a discharge from this facility, Estech would be fully liable under Section 309 of the Clean Water Act.

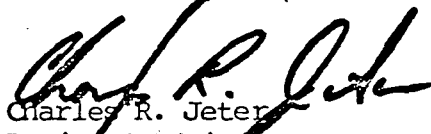
EPA recognizes that ongoing permitting proceedings with local government and the State of Florida could conceivably result in the imposition of project requirements which would then result in changes to the mine water balance. Should such water balance changes result in an expected discharge, Estech would have to reapply for a new source NPDES permit prior to its commencement. This, of course, would require recommencement of permit application and National Environmental Policy Act (NEPA) review procedures in a timely manner.

EXHIBIT E

Upon reapplication for an NPDES permit, EPA would reactivate the NEPA compliance procedures pertaining to new source NPDES permit actions. Absent changes in circumstances and significant new information, the NEPA documents and procedures already completed for the project remain valid and complete. Any project revisions would be the subject of NEPA review by EPA.

If you wish to withdraw your application for an NPDES permit, please submit a written certification indicating that Estech no longer intends to discharge pollutants to waters of the United States. Upon receipt of this certification, your NPDES permit application will be inactivated.

Sincerely yours,


Charles R. Jeter
Regional Administrator

Estech, Inc.

JOHN OSKAM
Vice President Mining

June 8, 1983

Mr. Charles R. Jeter
Regional Administrator
United States
Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: Estech, Inc. - NPDES Permit Application FL0036609

Dear Mr. Jeter:

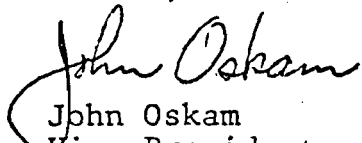
In light of the exchange of correspondence between you and legal counsel for Estech (copies attached), we hereby withdraw the above referenced pending application for an NPDES permit for our proposed Duette Mine in Manatee County.

We hereby certify that Estech, Inc. intends to operate its proposed Duette Mine and Beneficiation Plant in accordance with the Water Management Program previously submitted to the Agency. Accordingly, Estech, Inc. does not intend to discharge to waters of the United States.

Thank you very much for your cooperation.

Sincerely,

ESTECH, INC.


John Oskam
Vice President

/nj
Attachments

Rob Rhodes

RECEIVED JUN 22 1983



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JUN 17 1983

DATE: 6/23/83
FILE NO: 3668-73
FILE NO: _____
REF: _____
ROUTE TO: _____
RETURN TO: _____

REF: 4WM-FP

Mr. John Oskam
Vice President Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road, W.
Bradenton, FL 33507

Re: NPDES Permit Application FLO036609

Dear Mr. Oskam:

In your letter of June 8, 1983, you have certified that Estech, Inc. does not intend to discharge to waters of the United States from the proposed Duette Mine in Manatee County. Since, you have withdrawn the application for a new source National Pollutant Discharge Elimination System (NPDES) permit, NPDES permitting activity by EPA has been terminated and your application file inactivated.

If, at any future time, a discharge of pollutants to waters of the United States is desired, an application for an NPDES permit must be filed with EPA.

If you have any questions, please call Andrea E. Zimmer at (404) 881-2913.

Sincerely yours,

John J. Traina for

Paul J. Traina
Director
Water Management Division

Rob

DATE: 7-18-83
FILE NO.: 3668-73
FILE NO.: _____
REF: _____
ROUTE TO: _____

PUBLIC NOTICE

U.S. Environmental Protection Agency
Region IV
Water Management Division
345 Courtland Street, N.E.
Atlanta, Georgia 30365
(404) 881-4316

Public Notice No. 83FL061

Date July 14, 1983

RETURN TO: _____

Notice of Inactivation of National
Pollutant Discharge Elimination System Permit (NPDES) Application

On February 28, 1980, the United States Environmental Protection Agency published a notice of proposed issuance of NPDES Permit No. FLO036609 to Estech, Inc. (formerly Swift Agricultural Chemicals Corporation) for its proposed Duette Mine, located between the East and North Forks of the Manatee River, at approximately Latitude 27°32'09" and Longitude 82°07'13", Manatee County, Florida. In accordance with Section 306 of the Clean Water Act of 1977, the proposed facility, which is for the mining, beneficiation, and drying of phosphate rock, was determined to be a new source and therefore subject to compliance with the National Environmental Policy Act of 1969 (NEPA).

A public hearing on the proposed permit issuance was held on September 16, 1980. On June 3, 1982, EPA reopened the comment period as a result of the State's reclassification of the receiving waters. A Draft Supplement to the Environmental Impact Statement (EIS) was published in December 1982. The comment period for the Draft Supplement and the reopened comment period for the proposed permit closed on March 1, 1983.

Since the NPDES permit application was filed, Estech has proposed a revised water management program which would avoid discharges from the Duette Mine to the East and North Forks of the Manatee River. The conceptual revised water management program was evaluated in the Draft Supplement to the Environmental Impact Statement (EIS), with the conclusion that the possibility of a discharge would be extremely remote even under the worst case conditions.

Since publication of the Draft Supplement to the EIS, Estech has completed a design-level detailed water balance analysis. A review of the design also indicates no realistic expectation of discharge of mine wastewaters to the East or North Forks of the Manatee River.

Estech has certified to EPA that it intends to operate the proposed Duette Mine without a discharge to waters of the United States. Therefore, the applicant has withdrawn the permit application and EPA has terminated permitting activity, inactivated the permit file, and suspended the related NEPA compliance procedures.

If, at any future time, a discharge of pollutants to waters of the United States is proposed for this facility, an application for an NPDES permit must be filed with EPA. Such an application would be subject to all provisions of the Clean Water Act and the National Environmental Policy Act of 1969.

###

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV

In re Estech, Inc.; NPDES)
Permit # FL0036609 and)
Supplemental Environmental)
Impact Statement for Proposed)
Phosphate Mine in Manatee)
County, Florida)

DATE: 7/11/83
FILE NO: _____
FILE NO: _____
REG: _____
ROUTE TO: _____
RETURN TO: _____

REQUEST FOR
EVIDENTIARY HEARING

Manatee County, Florida, by and through undersigned counsel, hereby requests an evidentiary hearing pursuant to 40 C.F.R. § 124.71 et seq. to contest and seek reconsideration of the decision of Charles R. Jeter, Regional Administrator of Region IV, U.S. Environmental Protection Agency, inactivating the above-referenced NPDES permit and supplemental environmental impact statement ("SEIS") processes for Estech, Inc.'s, proposed phosphate mine and beneficiation plant in Manatee County, Florida.

Estech's mine, which lies in the heart of a regional drinking water supply for nearly a quarter million people, will produce waste waters that Estech admits will violate state water quality standards for surface and ground waters. Those polluted waste waters will contaminate Manatee County's water supply either by surface discharges through spillways, or by discharges to ground waters having a direct hydrologic nexus to navigable waters, or both. The effect of the Regional Administrator's decision is to abdicate and abandon all federal regulatory control over and responsibility for Estech's proposed pollutant discharges in violation of the Clean Water Act, 33 U.S.C. § 1251 et seq., and the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 et seq.

Manatee County's Substantial Interests

(1) This request for an evidentiary hearing is made on behalf of the citizens, residents, and visitors of Manatee County, Florida, by the Board of County Commissioners of Manatee County, whose mailing address is P.O. Box 1000, Bradenton, Florida 33508, and whose phone number is (813) 748-4501. Manatee County is a political subdivision of the State of Florida responsible for protecting the health, safety, and welfare of the public. As such, it represents all the citizens, residents, and visitors of the county, whose names and addresses are too numerous to list (see 40 C.F.R. § 124.74(c)(3)).

(2) Manatee County's responsibility to protect the public health, safety, and welfare creates in the County a substantial interest in protecting the County's environment and natural resources, including the quality of the public's drinking water supply. Estech proposes to conduct phosphate mining and beneficiation operations -- which will discharge mining wastes exceeding state pollution standards -- on 10,000 acres in northeastern Manatee County, approximately eighty-five percent of which lies in the watershed of the Lake Manatee Reservoir.

(3) The Lake Manatee Reservoir, which is owned by Manatee County and operated by the Manatee County Utilities Department, serves as the sole source of drinking water for the urbanized portions of unincorporated Manatee County, the City of Anna Maria, the City of Holmes Beach, the City of Bradenton Beach, the City of Palmetto, the Town of Longboat Key, and certain urbanized portions of the northern unincorporated areas of Sarasota County. The Lake Manatee Reservoir regularly serves as the sole source of drinking water for a population of approximately 250,000 people, and also supplements the drinking water supply of the City of Bradenton.

(4) The source of the waters in the Lake Manatee Reservoir and, therefore, the source of the potable water supply for the people of Manatee and Sarasota Counties, is the water flowing

from the rivers, streams, creeks, and other surface tributaries of the Lake Manatee watershed, in addition to the ground waters underlying the watershed, which significantly contribute to surface waters by a direct hydrologic nexus. The waters of the Lake Manatee Reservoir, and many of the surface tributaries connected therewith, constitute navigable waters.

(5) Because the Lake Manatee watershed and the underlying ground waters are the sole source of drinking water for the above-described people, Manatee County has a substantial interest in protecting its watershed and a major drinking water supply from pollution and other adverse, long-term impacts from phosphate mining.

(6) Pursuant to 40 C.F.R. § 124.74(c)(4), Manatee County states that upon motion of any party granted by the Presiding Officer, or upon order of the Presiding Officer sua sponte without cost or expense to any other party, the requester shall make available to appear and testify, the following: (i) the requester; (ii) all persons represented by the requester; and (iii) all officers, directors, employees, consultants, and agents of the requester and the persons represented by the requester.

Facts

(7) In connection with its proposed mining operations, Estech plans to construct and operate spillways (discharge points 002 and 003) to discharge excess flow from its operations into the East and North Forks of the Manatee River. On January 5, 1979, Estech applied to EPA for a National Pollutant Discharge Elimination System permit (NPDES # FL0036609) for its proposed mine. On February 18, 1980, EPA first requested water quality certification from the State of Florida pursuant to Section 401 of the Clean Water Act, 33 U.S.C. § 1341. EPA again requested certification from the State on April 14, 1980. On January 28, 1981, the Florida Department of Environmental Regulation (FDER) issued a letter of intent to deny Estech's application for state

water quality certification. FDER's proposed denial, along with other below-described permitting decisions, was challenged in consolidated proceedings before the Florida Division of Administrative Hearings (FDOAH).

(8) In addition to Estech's need for state water quality certification for the NPDES permit, Estech also submitted an application to FDER in May of 1980 for a permit to construct and operate water pollution discharge points 002 and 003. After initially intending to issue the state discharge permit, FDER changed its position and issued a letter of intent to deny the requested discharge permit on December 19, 1980.

(9) On February 18, 1981, Estech filed with FDER an "Alternative Petition and Request For Mixing Zones, Zones of Discharge, Permit Conditions, Site Specific Alternative Criteria or Variances" seeking relief mechanisms from state water quality standards it could not meet. FDER issued a letter of intent to deny Estech's alternative petition on March 30, 1981.

(10) Finally, Estech also requested a state permit to construct a 480-acre phosphate slime pond dam and a dredge and fill permit to prepare the slime pond area before construction. FDER issued letters of intent to issue these permits on July 3 and December 10, 1980, respectively.

(11) After all the above-described letters of intent were challenged by various parties, the several proceedings were consolidated and were heard by an FDOAH Hearing Officer in June and July of 1981. On March 15, 1982, the Hearing Officer issued a Recommended Order containing findings of fact and conclusions of law concerning the state certification and the several permits. The Hearing Officer expressly found that Estech's water-quality evidence was "inconclusive" and that the tests relied upon by Estech's experts "fail[ed] to demonstrate scientific accuracy"; the Hearing Officer therefore concluded that Estech had failed to provide reasonable assurance that its discharges would not unlawfully pollute the waters of the state.

See Hearing Officer's Findings of Fact nos. 45-46 and Conclusion of Law no. 8, FDOAH Recommended Order at 20-21, 24, attached hereto as Composite Exhibit A.

(12) In fact, during the course of the administrative proceedings, Estech itself predicted violations of state surface water quality standards for fluoride, total dissolved solids, and specific conductance, and violations of groundwater standards for fluoride. See "Estech's Proposed Findings of Fact, Conclusions of Law, and Recommended Order" (September 1981) at 43-44, 46, relevant portions attached hereto as Exhibit B.

(13) On May 28, 1982, the Secretary of FDER issued a Final Order on Estech's several permit applications. The FDER Final Order is attached as Composite Exhibit A. The Secretary expressly upheld and adopted the Hearing Officer's findings of fact that Estech's water quality data were inconclusive and failed to demonstrate scientific accuracy. See pages 2-3 of the FDER Final Order. Importantly, the Secretary also addressed the issue of the possibility of surface water discharges from Estech's mine, stating at page 4 of the Final Order:

The record clearly demonstrates that the proposed Estech mine could potentially result in a discharge of pollutants to waters of the state.

Having thus recognized the potential for surface water discharges, FDER thereby retained permitting jurisdiction, but nevertheless issued the discharge permits and water quality certification under Florida law.

(14) Finally, and equally important, the Secretary of FDER emphasized that there would be discharges of large quantities of mine waste waters into the ground waters and required Estech to obtain an FDER ground water permit. On page 9 of FDER's Final Order, the Secretary determined:

[T]he record in this case contains no reliable data with respect to the quality of the water being discharged into the surficial aquifer. Obviously this discharge is of great concern to the citizens of Manatee County since the proposed mine site is within the watershed of

Lake Manatee, a primary source of drinking water.

(15) On appeal to the Florida First District Court of Appeal, the court affirmed FDER's Final Order but modified it to require that Estech obtain a ground water permit prior to construction, as opposed to operation, of the mine. A petition for writ of certiorari, filed by Manasota-88 Inc., one of the parties to the proceedings, is pending before the Florida Supreme Court.

(16) Based on Estech's revised mining and reclamation plans, EPA decided to prepare and issue a supplemental environmental impact statement. EPA published a draft supplemental EIS (EPA 904/9-82-104) in December of 1982 and a public hearing was held in Manatee County on February 15, 1983.

(17) By letter dated February 28, 1983, Manatee County timely filed comments on the draft supplemental EIS for Estech's proposed phosphate mine. A copy of this comment letter is attached hereto as Exhibit C and is incorporated herein by reference. In the comment letter, Manatee County questioned EPA's proposal to issue an NPDES permit in spite of (and in fact ignoring) Estech's admitted surface water violations and FDER's determination that water quality standards would not be met. In addition, Manatee County challenged the adequacy of EPA's consideration of ground water impacts, pointing out that EPA was required by law to apply NPDES regulations for discharges into ground waters having a direct hydrologic nexus with and contributing to navigable waters.

(18) In late May of 1983, EPA telephoned the undersigned and requested the federal case law relied upon for Manatee County's contention that discharges to ground water having a direct hydrologic nexus with surface waters must be regulated under the Clean Water Act. Undersigned counsel telephoned this information to counsel for EPA and memorialized the information by letter dated June 7, 1983, a copy of which is attached as Exhibit D and incorporated herein by reference.

(19) By letter dated June 7, 1983, the Regional Administrator notified Estech that EPA was willing to "inactivate" the NPDES file and immediately halt all permit and EIS processing if Estech would withdraw its application and certify "that Estech no longer intends to discharge pollutants to waters of the United States." At the same time, however, the Regional Administrator paradoxically noted that if Estech did discharge, it would be fully liable under Section 309 of the Clean Water Act. Nevertheless, the Regional Administrator ignored and failed to mention the massive pollutant discharges to ground water that Manatee County had previously brought to EPA's attention. A copy of this letter is attached hereto as Exhibit E.

(20) By letter to EPA dated June 8, 1983, Estech withdrew its application and certified that it did not intend to discharge to waters of the United States. A copy is attached as Exhibit F.

(21) By letter to Estech dated June 17, 1983, EPA Region IV terminated the NPDES permitting process and inactivated the Estech file. A copy is attached as Exhibit G.

(22) As a result of EPA's decision to terminate the federal permitting process for Estech's water pollution discharges, EPA has unlawfully abdicated and abandoned its responsibilities to protect the environment and natural resources based solely on Estech's "intention" to have no surface water discharges from its proposed mine. In effect, by abandoning its regulatory duties and responsibilities, EPA has permitted Estech to conduct its proposed mining and beneficiation processes (and to make the above-described discharges) in the drinking water supply of a quarter million people; furthermore, EPA's de facto authorization will allow Estech to discharge pollutants with absolutely no effective federal control, conditions, limitations, supervision, or monitoring. EPA has ignored its responsibility and refuses to regulate discharges to ground waters having a direct hydrologic nexus with and contributing to navigable waters, and it has completely cut off all public participation in the federal permitting process.

Legal and Factual Questions at Issue

(23) A. Legal Question: Whether an "intent" to not discharge to surface waters is sufficient to cancel the requirement of obtaining an NPDES permit.

B. Factual Issue: There is no disputed factual issue here -- EPA requested a certification of no intent to discharge, and Estech certified the same.

C. Relevance: Because the Clean Water Act requires an NPDES permit for the "discharge of any pollutant," a permittee's intent is irrelevant.

(24) A. Legal Question: Whether the Clean Water Act requires application of NPDES permitting requirements for phosphate mines discharging polluted waste waters to ground waters having a direct hydrologic nexus with and contributing to navigable waters.

B. Factual Issue: Because Estech's mining operations will discharge approximately one million gallons of polluted waste water per day to ground waters, it must be determined whether the ground waters in and around Estech's property have a direct hydrologic nexus with and contribute to navigable waters.

C. Relevance: If the ground waters under Estech's mine have the proper hydrologic nexus to navigable waters, which they do, there is a likelihood that Estech's polluted waste waters will reach the surface waters of the Lake Manatee watershed through ground water contribution and thereby endanger the public health, safety, and welfare. Since the Clean Water Act covers such discharges, EPA must reactivate the NPDES permit and SEIS and apply appropriate federal regulations to Estech's ground water discharges.

(25) A. Legal Question: Whether the discharge of any pollutant to navigable waters requires an NPDES permit.

B. Factual Issue: Will Estech's mining and beneficiation operations result in the discharge of any pollutants, whether by surface or ground water discharge, and

will those discharges directly or indirectly reach navigable waters?

C. Relevance: The affirmative answer to these questions requires EPA to restart the NPDES permitting process and make a decision on whether or not to issue Estech an NPDES permit.

(26) A. Legal Question: Whether a phosphate mine with an admitted potential to discharge polluted waste waters to navigable waters requires an NPDES permit.

B. Factual Issue: Will there be potential or actual surface water discharges from Estech's mining operations?

C. Relevance: If a phosphate mine has the potential for surface waters discharges, and as here has two discharge points built expressly and solely for that purpose, EPA should not be allowed to abandon its federal regulatory responsibilities simply by arguing that such discharges are not as likely as with other mining operations.

(27) A. Legal Question: Whether the federal Clean Water Act authorizes EPA to abandon its responsibility to regulate Estech's pollutant discharges when the state has determined after full evidentiary hearings that state water quality standards would not be met and Estech has admitted that any discharges from its mine would violate state standards.

B. Factual Issue: Again, there is no disputed factual issue here. The State of Florida determined after full evidentiary hearings that any discharge from Estech's mine would violate state water quality standards, and Estech itself has predicted violations of several state standards.

C. Relevance: The relevance of this question lies in whether or not Congress intended to allow polluters to discharge admittedly violative waste waters simply because the permittee intends that there will be no discharge. In other words, where a potential for a surface water discharge definitely exists, can EPA waive its regulatory responsibilities on the basis that the

permittee does not intend to discharge its polluted waste waters?

(28) A. Legal Question: Whether the Clean Water Act authorizes the Regional Administrator (1) to ignore NPDES permitting requirements for a phosphate mine with potential surface water discharges and actual ground water discharges, both of which will reach navigable waters, and (2) to rely instead on after-the-fact enforcement of violations of the Act.

B. Factual Issue: In this case, while recognizing the potential for a surface water discharge, the Regional Administrator has abandoned EPA's responsibility to prevent pollution based on the hope that Estech will not discharge to surface waters; if he is wrong, the Regional Administrator apparently would then hope to be able to enforce the Clean Water Act after the fact and possibly to collect a fine.

C. Relevance: Congress intended that pollutant discharges not only be cleaned up, but also prevented wherever possible, and EPA has been charged with the responsibility of preventing violations of the water quality standards of the Clean Water Act.

(29) A. Legal Question: Whether NEPA requires preparation and completion of an EIS when the Regional Administrator decides not to regulate a major discharger of pollutants under the Clean Water Act.

B. Factual Issue: The Regional Administrator not only halted the NPDES permitting process, he also prevented completion of the EIS and failed to address and assess his instant decision in an EIS or environmental assessment.

C. Relevance: NEPA has been described as a public disclosure law that forces agencies to describe and assess impacts of their decision-making. Here, because the Regional Administrator refuses to prepare an EIS, environmental assessment, or other basis of decision, the public will have no way of knowing what factors contributed to the decision, what weight the Regional Administrator placed on each factor, and what alternatives were available.

(30) A. Legal Question: Whether NEPA requires preparation of an EIS to thoroughly characterize and analyze the impacts of discharging one million gallons per day of polluted waste waters to ground waters having a direct hydrologic nexus with and contributing to navigable waters constituting a regional drinking water supply.

B. Factual Issue: To date, EPA has not prepared a draft or final EIS that in any way adequately addresses the impacts from Estech's proposed massive discharge of pollutants to the ground waters of the Lake Manatee watershed.

C. Relevance: Since EPA has not yet characterized or analyzed the impacts from such discharges to Manatee County's ground waters, the Regional Administrator's decision to waive the NPDES requirements for Estech's water pollution discharges may not have been fully informed.

Specific Factual Areas To Be
Adjudicated and Estimated Hearing Time

(31) All the above factual issues must be adjudicated during the evidentiary hearing. It is estimated that the hearing time necessary for adjudication will be three days.

THEREFORE, Manatee County requests an evidentiary hearing to contest and seek a reconsideration of the Regional Administrator's decision to terminate the NPDES and EIS procedures for Estech's proposed pollutant discharges and to thereby abandon all effective federal control and regulation thereof.

Respectfully submitted,

PEEPLES, EARL, REYNOLDS
& BLANK, P.A.
Attorneys for Manatee County
One Biscayne Tower, Suite 3636
Two South Biscayne Boulevard
Miami, Florida 33131
Telephone: (305) 358-3000

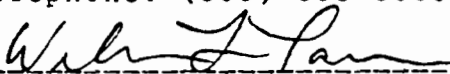


William F. Tarr

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that true and correct copies of the foregoing Request for Evidentiary Hearing (and exhibits) were mailed this 7th day of July, 1983, to the EPA Regional Hearing Clerk, 345 Courtland Street, N.E., Atlanta, Georgia 30365; Wade Hopping, Esquire, Hopping, Boyd, Green & Sams, Post Office Box 6526, Tallahassee, Florida 33201; and Robert L. Rhodes, Esquire, Holland & Knight, Post Office Drawer BW, Lakeland, Florida 33802.

PEEPLES, EARL, REYNOLDS
& BLANK, P.A.
Attorneys for Manatee County
One Biscayne Tower, Suite 3636
Two South Biscayne Boulevard
Miami, Florida 33131
Telephone: (305) 358-3000



William F. Tarr

BEFORE THE ENVIRONMENTAL PROTECTION AGENCY
UNITED STATES OF AMERICA REGION IV

MANASOTA-88, INC., and MANATEE]
COUNTY SAVE OUR BAYS ASSOCIATION, INC.]
]
Petitioners,]
]
v.]
]
UNITED STATES ENVIRONMENTAL]
PROTECTION AGENCY,]
]
Respondent.]

REQUEST FOR HEARING

1. Pursuant to 33 USC §1342, 40 CFR §124.74 and 40 CFR §124.114, Petitioners, MANASOTA-88, INC. (MANASOTA-88) and MANATEE COUNTY SAVE OUR BAYS ASSOCIATION, INC. (SOBA) request Respondent, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) to grant them a hearing on EPA's proposed major agency action of withdrawing its proposed draft NPDES permit (Draft permit #FL0036609) and not requiring Estech, Inc. to obtain a National Pollution Discharge Elimination (NPDES) permit for its proposed new 10,394 acre phosphate mine with two point source discharge points into the Manatee River 12 miles upstream from Lake Manatee Reservoir, the sole potable water supply for approximately a quarter million residents in Manatee County and Sarasota County, Florida.

Parties

2. Petitioner, MANASOTA-88 and SOBA are not-for-profit public interest, environmental and public health protection organizations organized and incorporated under the laws of the State of Florida. The vast majority of the membership of petitioners rely exclusively upon the water supplies of Lake Manatee for their potable water. Estech, Inc.'s proposed Duette strip mine will directly and adversely affect the potable water supply in Lake Manatee of the vast majority of the members of MANASOTA-88 and SOBA.

Receipt of Notice

3. On or about June 10, 1983, Petitioners' undersigned legal counsel was notified by telephone by a local newspaper reporter that EPA had taken some type of action on Estech, Inc.'s Duette Mine NPDES application. On June 16, 1983, Petitioners' received from Manatee County a copy of a letter dated June 7, 1983, from Charles R. Jeter, EPA's Regional Administrator for Region IV, to ESTECH, INC. which advised Estech that its proposed new 10,394 acre Duette phosphate strip mine did not need an NPDES permit because it would not have a point source discharge of pollutants into waters of the United States.

4. As to date, neither MANASOTA-88 nor SOBA have received any communications from EPA on this matter despite the fact that Petitioners have supplied numerous oral and written comments to EPA concerning Estech's proposed Duette Mine.

Procedural Facts

5. On January 5, 1979, Estech, Inc. applied to EPA for an NPDES permit for its proposed 10,394 acre phosphate strip mine in the watershed of Lake Manatee, the sole potable water supply for approximately a quarter million residents and an untold number of tourist in Manatee and Sarasota Counties.

6. At EPA's direction, a third party consultant prepared a draft EIS and a final EIS pursuant to 33 USC §4332(2)(c) and 40 CFR Part 6.9 for the strip mine. In September of 1980, the Final EIS was issued with Draft NPDES Permit No. FL0036609.

7. During this same time period EPA requested the Florida Department of Environmental Regulation (DER) to certify whether the proposed Duette strip mine could meet the State of Florida's water quality standards. On June 21, 1981, to July 9, 1981, DER held an evidentiary hearing on

Estech, Inc.'s proposed project. MANASOTA-88 was a party to that proceeding but SOBA was not. After Estech, Inc. rested its case, it radically modified its permit application for a proposed 2 million gallon per day discharge facility to an alleged zero discharge facility. In its Final Order, DER held that Estech, Inc.'s water quality evidence was unreliable and lacked scientific accuracy. DER also held that Estech, Inc. had not adequately established the volume, quality or the effects of its ground water discharges and must therefore apply for and obtain a DER ground water discharge permit before it begins construction. Lastly, DER held that MANASOTA-88, MANATEE COUNTY and SARASOTA COUNTY had not been denied their due process rights by Estech, Inc.'s radical modification of its design after Estech, Inc. had rested its case. This ruling concerning MANASOTA-88's due process rights is currently on appeal to the Florida Supreme Court.

8. In the fall of 1982, EPA issued a notice that it was preparing a supplemental EIS for Estech, Inc.'s Duette strip mine because substantial changes had occurred since the preparation of the FEIS, namely (a) reclassification of the Manatee River to Class I - Potable Water Supply by DER and (b) Estech, Inc.'s proposed "zero discharge" proposal.

9. On January 7, 1983, EPA distributed a draft supplement EIS for comment. A public hearing on this draft supplement was held in Palmetto, Florida on February 15, 1983. Petitioners along with Manatee County, Sarasota County and numerous public interest organizations appeared at this hearing and made detailed comments and criticism of the draft supplement and its analysis of Estech, Inc.'s no discharge proposal. Written comments were also made to EPA by Petitioners.

10. On June 7, 1983, Charles R. Jeter, EPA's Regional Administrator for Region IV, wrote to John Oskam, vice president of Estech, Inc., advising him that Estech, Inc.'s proposed Duette strip mine did not require a NPDES permit and suggested that Estech, Inc. withdraw its permit application.

11. On June 8, 1983, John Oskam wrote to Charles R. Jeter and advised him that in reliance upon Mr. Jeter's June 7, 1983, letter, Estech, Inc. was withdrawing its NPDES permit application for the proposed Duette strip mine.

New Discovered Evidence

12. Since Petitioners last communication with EPA concerning the proposed Duette strip mine, they have discovered that Estech, Inc.'s consultant utilized the wrong evaporation figures for the zero discharge calculations. Average evaporation figures for Lake Okeechobee, significantly south of Manatee County and with higher evaporation rates, were utilized rather than the lower evaporation rates developed for the Tampa Bay area and utilized by Estech, Inc.'s consultant in another case.

Disputed Issues of Law and Fact

13. Whether Estech, Inc.'s proposed Duette strip mine is really a "zero discharge" facility.

14. Whether Charles R. Jeter could make a conclusion concerning whether Estech, Inc.'s proposed no discharge system would really work prior to completion of a Final Supplemental EIS (See, 40 CFR §124.61; 40 CFR §§1502.5, 1508.11, 1508.18) and the highly controversial and substantial dispute concerning the environmental aspects of the proposed "no discharge" plan. Texas Committee on Natural Resources v. Bergland, 433 F.Supp 1235, 2348 (hn,8) (E.D. Tex. 1977); State of North Dakota v. Andrus, 483 F.Supp. 255, 260 (hn. 2,3) (D. ND 1980).

15. Whether the newly discovered evidence requires a reevaluation of EPA's decision not to require a NPDES permit for Estech, Inc.'s Duette strip mine.

16. Whether EPA has made a proper "record of decision" concerning Estech, Inc.'s proposed Duette strip mine. 40 CFR §1505.2.

17. Whether 33 USC §1251 and 33 USC §§1341 and 1342 require EPA to issue NPDES permits for proposed "zero discharge" facilities which will have point source discharge structures constructed for foreseeable use. United States v. Earth Sciences, Inc., 399 F.2d 368, 374 (10th Cir. 1979); SED, Inc. v. City of Dayton, 519 F.Supp 979, 989 (hn. 6,7) (SD Ohio 1981).

18. Whether the EPA does in fact require NPDES permits for "zero discharge" public waste water systems and other types of zero discharge facilities.

19. Whether EPA's policy of not requiring NPDES permits for alleged "zero discharge" facilities is major federal action which requires preparation of a separate EIS.

20. Whether an NPDES permit is required for discharges to ground water which have a hydrologic nexus to surface waters. Kentucky v. Train, 9 ERC 1280, 1282 (ED Ky 1976); O'Leary v. Moyer's Land Fill, Inc., 11 ELR 21006 (ED Pa. 1981).

21. Whether Estech, Inc.'s proposed Duette strip mine will have a discharge to ground waters with a hydrologic nexus to surface waters.

22. Whether Estech, Inc.'s proposed extensive impoundment areas will cause violations of state water quality standards by reducing flow into the Manatee River.

23. Whether EPA is mandated by 33 USC §1341 to require an NPDES permit for Estech, Inc.'s Duette strip mine since the DER water quality certification expressly held that such a permit was necessary to ensure compliance with state water quality standards.

24. Whether Estech, Inc. is equitably estopped from arguing that it does not need an NPDES permit since it filed written exceptions with DER arguing that the state hearing officer erred when she recommended that Estech, Inc. did not need an NPDES.

WHEREFORE, Petitioners respectfully request that

(a) EPA grant them a formal evidentiary hearing pursuant to 40 CFR §124.74 under the procedures set forth in Subpart F; and

(b) EPA require Estech, Inc. to prove its entitlement to construct and operate the proposed Duette strip mine.

Thomas W Reese
Of Counsel for Petitioners

THOMAS W. REESE
123 Eighth Street North
St. Petersburg, Florida 33701
(813) 822-4084

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the above and foregoing has been forwarded by U.S. Mail to Charles R. Jeter, Regional Administrator, U.S. EPA, Region IV, 345 Courtland Street, Atlanta, Georgia, 30365 on this 13th day of July, 1983.

Thomas W Reese

Estech, Inc.

JOHN OSKAM
Vice President Mining

PHOSPHATE MINING

AUG 16 1982

August 16, 1982

COORDINATOR

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
Post Office Box 1000
Bradenton, Florida 33506

Re: Operating Permit for Duette Mine

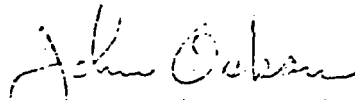
Dear Mr. Eckenrod:

Enclosed are 15 copies of Estech's application for an operating permit for its Duette Mine. With this letter, please be informed one copy is also being forwarded to the Manatee County Planning Department. Also enclosed is a check for \$25,000 in payment of the filing fee specified by Ordinance 75-4. Please acknowledge receipt of the application and filing fee by stamping a copy of this transmittal letter and signing the attached receipt.

I am sure you are aware that the question of what ordinances apply to our project is the subject of a circuit court action between Estech and the County. By filing the enclosed application, we do not intend for either Estech or the County to waive or prejudice any of their rights in that lawsuit.

Very truly yours,

ESTECH, INC.




John Oskam
Vice President Mining

1rd
Enclosures

cc: Mr. L. Fraser

RECORD OF FILING

I hereby acknowledge receipt of 1 copy of Estech's
Operating Permit Application for its Duette Mine.


Signature

8/16/82 1.47.43
Date Time

RECORD OF FILING

I hereby acknowledge receipt of 15 copies of Estech's Operating Permit Application and filing fee for its Duette Mine.

Richard M. Edwards

Signature

8/16/82

Date

1:32 pm

Time

MANATEE COUNTY
GOVERNMENT

RECEIVED SEP 15 1982

September 15, 1982

HAND DELIVERED

Mr. John Oskam
Vice President of Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, Florida 33507

Re: Completeness Review of Operating Permit Application

Dear Mr. Oskam:

This constitutes notice of our determination pursuant to Manatee County Ordinance 81-22, Section IV.A.1., that for the reasons set forth below, the referenced application is not complete. The 90-day compliance review period specified in Section IV.A.2. of the Ordinance therefore cannot commence at this time. Nevertheless, in order to minimize delay and expedite consideration of the application, we will proceed to review and discuss the information already submitted.

Based on the County's review of the Operating Permit application it appears that the proposed mining activities will result in substantial adverse environmental impacts. It is necessary for Estech to submit additional information before other impacts of the proposed activities can be evaluated. In preparing the complete Operating Permit application, please be mindful that Estech is required to affirmatively demonstrate that it has met all requirements for Operating Permits, and that the proposed mining activities are consistent with the purposes of the Ordinance 81-22 and with the approved Master Mining Plan and other necessary development approvals.

The following constitute omissions of items required as part of an operating permit application:

1. SECTION III.B.2. Please submit five (5) copies of all other state, federal and regional applications, and approved permits excluding the D.R.I. to the Phosphate Mining Coordinator. Do not fail to include the FDER groundwater discharge permit application and the most recent N.P.D.E.S. permit application.

EXHIBIT L

PHOSPHATE MINING COORDINATOR • 223 — 6th Avenue East, Bradenton, Florida (813) 748-4501 Ext. 380

P. O. Box 1000, Bradenton, Florida 33506

2. SECTION III.B.3.

- a. Engineering design drawings need to be provided for the following mining activities and facilities:
- o Mining cut plan
 - o Pit control car
 - o Pit pump
 - o Booster pump
 - o Matrix pipeline
 - o Mine water pumps
 - o Pit drainage pumps
 - o Seal water pumps
 - o Power systems to operate pumps & dragline
 - o Sewage treatment plant
 - o Main office building
 - o Maintenance shop and office building
 - o Guard house complex
 - o Warehouse building
 - o Locomotive and heavy equipment shop
 - o Vehicle service shop
 - o Chemical lab, metallurgical lab and pilot plant building
 - o Lube storage, painter, and carpenter shop
 - o Fire pump building
 - o Main switchgear building
 - o Track scale and truck scale
 - o Vehicle service facilities
 - o Railroad
 - o Roadways including plant site and Duette Road
 - o Recycle awter preparation facility
 - o Package boiler
 - o Electrical distribution facilities
 - o Stream crossings
 - o All structures and equipment necessary to implement the "zero discharge" water management system ;
 - o Plant site stormwater management facilities
- b. Engineering specifications must be submitted as part of the Operating Permit application for the following facilities:
- o Sewage treatment plant
 - o Track scale and truck scale
 - o Railroad
 - o Roadways (on site and off site)
 - o Package boiler
 - o Stream crossings . . .
 - o All structure and equipment necessary to implement the "zero discharge" water management system
 - o All facilities and equipment necessary to implement the Spill Notification, Containment and Safety Plan (See Item No. 3)

- o All surface water impoundments including dams and dikes for above-ground impoundments
 - o All air pollution control equipment
 - o Recycle water preparation facility
 - o All production and domestic water wells
 - o Pit control car
 - o Pit pump
 - o Booster pump
 - o Matrix pipeline
 - o Reagent storage facilities
 - o Plant site stormwater management facilities and any other equipment or facilities for controlling non-point sources of pollution
- c. Specifications for the remaining buildings and facilities should be submitted to the Phosphate Mining Coordinator and the Planning and Development Department at the time building permits are applied for.
3. SECTION III.B.5. As indicated in the County's comments on Section III.B.3., plans and specifications for all equipment and facilities which are necessary to implement the Spill Notification, Containment, and Safety Plan should be provided with the Operating Permit application.
4. SECTION III.B.6. The separately audited financial statement being prepared for Estech, Inc. must be certified and submitted with the application.

Provide certificate of insurance for environmental impairments liability coverage in the amount specified in Section III.C.16.b.iii. to become effective upon commencement of mining activities as defined in Ordinance 81-22.

To meet the requirements of Sections III.C.16.c and III.C.16.d. provide either the bonds themselves or a letter of intent to issue a surety and/or reclamation bond in the prescribed amounts and in a specifically identified form. Said bond(s) should become effective before or upon commencement of mining activities.

No operating permit may be issued until these and other required items have been submitted. Note particularly that an operating permit may not be issued until all necessary federal and state development approvals have been secured. Also, copies of all applications to and permits from federal and state agencies must be submitted before the application can be considered complete and before the 90-day processing period can commence.

The following constitutes additional information which is required to supplement the information submitted on August 16, 1982. Under Ordinance 81-22, Section IV.A.1., the additional information must be provided within 30 days, except that additional time may be allowed if Estech demonstrates that such extension is necessary to prepare the requested information.

5. SECTION II.B.1. The names of persons or entities having any interest in the mining activities or ownership of the land have not been fully identified in either the Master Mining Plan or Operating Permit application.
6. SECTION II.B.2. Information on the applicant's agent as provided in the Master Mining Plan is not current.
7. SECTION II.B.3. The legal description of lands under option to the applicant has not been provided in either the Master Mining Plan or Operating Permit application.
8. SECTION II.B.4. Estimated yearly production of ore, product, and by-products for the life of the mine have not been provided in the Master Mining Plan or Operating Permit application. Estimates must include the amount of ore and/or product to be imported from other mine locations and the associated by-products generated.

The reduction from setback requirements which the applicant intends to request over the life of the mine has not been provided. Presumably, the proposed mining plan and the impacts of the mining activities are based upon certain reductions in the setback requirements. If that is the case, the assumed setback reductions should be identified in the application. The impacts of mining activities should also be forecast for the case of no reduction in setback requirements.

9. SECTION II.B.5. The description and interpretation of the geologic nature of the confining bed(s) should be provided in sufficient detail to support any conclusions of the applicant as to leakance between water producing zones. The geologic structure and physical properties of the surficial aquifer are also necessary to evaluate the potential impacts of the mining and reclamation activities on the ground water hydrology. Salient features of the confining bed(s) include but are not limited to the variability in transmissivity of the various information, the existence of any fissures, dolines, karsts or other geologic features serving to directly connect the surficial aquifer to lower water bearing formations.

Maps delineating the potentiometric surface of the upper Floridan aquifer and the ground water table over the site should be provided.

10. SECTION II.B.6. Indicate how much of each reagent is expected to be added at each step of the beneficiation process. Also provide more detailed descriptions of the chemical composition of the amines, fatty acids, silicate modifier, and flocculant utilized in the clay thickeners.

Characterize the quantity and chemical composition of each waste water stream as it exits the beneficiation process or water treatment process and enters the recirculation system or waste disposal site.

11. SECTION II.B.8. The locations and dimensions of all drainage swales and ditches intended to convey process and/or storm water within the water recirculation system should be provided. Also indicate the normal and maximum expected operating levels in those structures.
12. SECTION II.B.9. An inventory of existing wells on the site has not been provided nor has any of the other information required under this section.
13. SECTION II.B.10. The water balance figures presented in the application presumably are based on the highest expected rainfall sequence. Water balance figures for the lowest and average expected rainfall sequence must also be provided. In addition, an explanation of computational methods and assumptions must be provided.
14. SECTION II.B.11. The description of surface water hydrology impacts given in the Master Mining Plan needs to be updated to reflect the "zero discharge" water management plan. The extent to which the proposed mine will affect peak and average stream discharge rates must also be reassessed. The assessment should consider (a) reduction in surface runoff due to rainfall catchment within active mining areas; (b) reduction in stream baseflow due to altered properties of surficial aquifer adjacent to stream channels; (c) alteration in the pattern of post-reclamation surface runoff due to low permeability of sand/clay mix and (d) any other factors which would measurably alter the quantity or pattern of stream flow.

Impacts of discharges upon surface and ground water quality within and off the site must be addressed and quantified.

Impacts on ground water hydrology must also be assessed considering such factors as: (a) changes in the rate of natural recharge to the Floridan aquifer and (b) reduction in the regional flow through the surficial aquifer due to the low permeability of sand/clay mix.

15. SECTION II.B.12. None of the information required under this provision of the Ordinance has been provided in the Operating Permit application. Discharge quantity information which was provided in the Master Mining Plan is no longer applicable due to changes in the water management plan.

Information on the physical, chemical or radiological properties of the liquid and solid wastes which has been provided in the Master Mining Plan or the Operating Permit application is insufficient. All liquid wastes should be characterized including but not limited to any process water, domestic wastewater, brine from the reverse osmosis treatment plant, blowdown from the package boiler, and discharge water from the sulfur dioxide and particulate scrubbers.

Characterization of solid wastes should address any naturally occurring or artificial contaminants associated with the sand tailings, overburden, and waste clays. The description of physical properties of the solid wastes should include those properties which would affect the rate of dewatering and the degree of consolidation achievable.

16. SECTION II.B.13. Five (5) copies of all permits applications and approvals from the Southwest Florida Water Management District should be provided including but not limited to the Consumptive Use Permit and the Management and Storage of surface waters permit.
17. SECTION II.B.14. The emission estimates provided in Table II-K of the Master Mining Plan must be updated to reflect the most recent estimates. Emission rates of fluoride, Radium 226, and gross alpha radiation should also be included along with any parameters for which the State of Florida has promulgated standards. The applicant must also explain a basis for any estimates for non-point or fugitive emissions. All emission estimates must be certified by a registered professional engineer.
18. SECTION II.B.15. Are areas which have been cleared and grubbed prior to mining considered by the applicant to be "active mining areas"? If not, how will non-point source runoff from these areas be controlled?

The applicant shall further describe how water pollution from non-point sources will be controlled in the post-reclamation condition. This shall include an assessment by the applicant of how runoff from reclaimed areas will affect the quality of receiving waters.

The applicant should indicate the locations at which any runoff from sand tailings disposal areas and the plant site enters the water recirculation system.

In designing the non-point source control program, the applicant should be aware of the need to apply best management practices and best possible technology for controlling water pollution within the watershed.

19. SECTION II.B.16. Certain inconsistencies exist between the environmental monitoring programs described in the Master Mining Plan and the Operating Permit application. For example the Master Mining Plan indicated that surface water quality measurements would be conducted at monthly intervals whereas quarterly sampling intervals are proposed in the Operating Permit Application. The applicant should clearly indicate that the program as described in the Operating Permit application represents the proposed program.
20. SECTION II.B.17. With the exception of locating the plant entrance, road and rail lines on the site, no elements of the transportation analysis as required by this section have been addressed in either

the Master Mining Plan or Operating Permit application. The applicant should not fail to address the impacts of truck shipment of products and raw materials.

21. SECTION II.B.18. The following features of the mine and property need to be graphically shown at a scale of one inch equals 400 feet:
- o Designated Special Treatment Overlay Districts.
 - o Permanent ditches, i.e. those ditches to be used through the life of the Operating Permit.
 - o The limits of existing wetlands with the Master Mining Plan area.
 - o Topographic contours at 2 foot intervals before, during and after mining.
 - o An updated depiction of the final land use for the entire site upon completion of reclamation.
 - o Power line corridors and accompanying service roads if any.
22. SECTION II.B.19. An updated Reclamation Plan needs to be submitted with the Operating Permit application which consolidates various elements of the reclamation plan scattered through the Master Mining Plan, the DRI-ADA, the DRI addendum, and the Environmental Impact Statement. The updated Reclamation Plan should reflect the various changes imposed by regulating agencies and changes made voluntarily by Estech.
- The updated plan should clearly show that the reclamation standards provided in the Mining and Reclamation Ordinance for agricultural lands, South Florida Flatwoods, wetlands, lakes and other water bodies, as well as the revegetation criteria will be met.
- All disturbed lands as defined in the Mining and Reclamation Ordinance should also be clearly shown in the updated plan.
23. SECTION II.B.20. Engineering certification of the revisions to the Master Mining Plan must be provided.
24. SECTION III.B.7. In addition to the previously specified requirements for Operating Permit applications, the applicant is required to submit any additional information necessary to demonstrate compliance with the Operating Permit criteria of the Ordinance. While it is not determinable whether all of the necessary information and documentation has been provided until the compliance review is complete, it is apparent at this time that some essential information and documentation is lacking. For example, virtually no documentation is provided to show that the proposed mining and reclamation activities are consistent with best management practices as defined in the Mining and Reclamation Ordinance.

A variance to the setback requirements of the Ordinance has been requested in the application. Section III.C.2.d. of the Ordinance prescribes various procedures for obtaining reductions from the

Mr. John Oskam
Page Eight
September 15, 1982

setback requirement. If Estech chooses to pursue the variance procedure as described in Section III.C.2.d.iii, it must affirmatively demonstrate that any applicable setback requirement is unreasonable under the circumstances and would create undue hardship, and that a lesser requirement would not adversely affect the public health, safety, and welfare. Variances to setbacks established by regulations other than Ordinance 81-22, such as the Manatee County Zoning Ordinance, should be requested according to applicable procedures.

The form of any setback agreements Estech proposes to enter with adjoining landowners should be submitted to the Phosphate Mining Coordinator for approval prior to issuance of the Operating Permit.

The observed high gross alpha radiation levels in the recharge well on the Duette Mine site raises additional questions regarding the distribution and mobility of radionuclides in the overburden as well as the matrix. This problem must be addressed in the Operating Permit application in demonstrating compliance with Sections III.C.4.a. and III.C.4.c. of the Ordinance.

In preparing the updated Reclamation Plan for the mine the applicant should be cognizant of the need to demonstrate compliance of the requirements of Section III.C.5. of the Ordinance.

Section III.C.17. of the Mining and Reclamation Ordinance requires that mining activities conducted within the Lake Manatee watershed be conducted with the best possible technology (See Section I.D.4. of the Ordinance for definition of BPT). The Ordinance does not limit the applicant to any particular format for demonstrating BPT. A reasonable procedure for Estech to follow in demonstrating BPT would be first to compare the proposed technology with other technologies being used for strip mining in general and in areas of comparable sensitivity if possible. The comparison of technologies could then be followed by an explanation of the proposed technology including the factual bases for determinations regarding technological and economic feasibility.

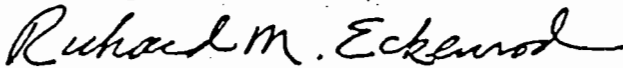
Among the purposes of the Ordinance is protection of the health, safety and welfare of the citizens of Manatee County. In demonstrating that the proposed mine is consistent with protecting human health, do not fail to thoroughly evaluate the potential effects of enhanced radiation levels which may result from the proposed mining activities.

Any information which Estech wishes to be considered as part of its Operating Permit application, such as sections of the DRI-ADA or EIS, must be submitted to the County. Make certain there are no inconsistencies or ambiguities in information from different source documents which might be included as part of the application.

Mr. John Oskam
Page Nine
September 15, 1982

Please address any questions you have regarding the subject application to the undersigned.

Sincerely,



Richard M. Eckenrod
Phosphate Mining -Coordinator

RME:hhv

xc: Board of County Commissioners
County Staff
Mary Greenwood, Esq.
John R. Blue, Esq.

September 27, 1982

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
P. O. Box 1000
Bradenton, Florida 33506

Dear Mr. Eckenrod:

This acknowledges receipt of your letter dated September 15, 1982, in which you advised us of the additional information necessary to make our application for an operating permit complete under Ordinance 81-22.

In reviewing that letter, it appears that the level of detail you have requested in many areas is greater than what we had originally understood would be required to make a complete operating permit application. Nevertheless, we have concluded that it is possible to furnish the additional information requested, although an extension of time will be necessary to prepare that information and assemble it in the proper format. Accordingly, we hereby request an extension of time to and including December 15, 1982 in which to respond to your information request.

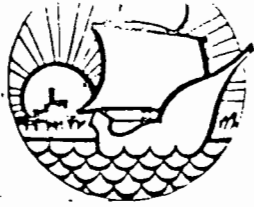
As you know, the legal issue of whether our operating permit application is subject to Ordinance 81-22 is the subject of an on-going lawsuit between Estech and the County. By requesting an extension of time to submit additional information in support of our application, we do not intend for either Estech or the County to waive or prejudice any of their rights in that lawsuit.

Sincerely,

ESTECH, INC.

John Oskam
Vice President Mining

lrd



BEST AVAILABLE COPY

MANATEE COUNTY
GOVERNMENT

October 15, 1982

Mr. John Oskam
Vice President Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, Florida 33507

Re: Estech Duette Mine
Operating Permit Application

Dear Mr. Oskam:

Your September 27, 1982 request for additional time to respond to the September 15, 1982 letter from this office is hereby granted subject to the following change in the due date. The additional information will be due no later than January 3, 1983 at which time the County will commence the compliance review of the subject application.

Sincerely,

Richard M. Eckenrod
Phosphate Mining Coordinator

RME:jk

xc: Board of County Commissioners
Keith F. Roberts, Esq.,
Assistant County Attorney

Estech, Inc.

RJM

December 17, 1982

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
Post Office Box 1000
Bradenton, Florida 33506

Re: Operating Permit Application
Duette Mine

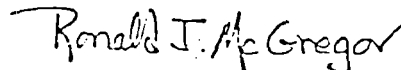
Dear Mr. Eckenrod:

In your letter of October 15, 1982, you extended the deadline for submittal of additional information in support of our application for an operating permit until January 3, 1983. We have been working diligently to compile the additional information that you requested. However, we have found that more time is needed in order to comprehensively reply to your request. In particular, we would not be able to fulfill your request to include a copy of the ground water permit application until sometime after January 3. Therefore, I hereby request that the submittal deadline be extended until March 30, 1983. We would make every effort to submit the additional information before this date, so your review of the application can proceed in a timely fashion.

As you know, the legal issue of whether our operating permit application is governed by Ordinance 81-22 is the subject of an on-going lawsuit between Estech and the County. By requesting a further extension of time to submit additional information, we do not intend for either Estech or the County to waive or prejudice any of their rights in that lawsuit.

Sincerely,

ESTECH, INC.



Ronald J. McGregor
Environmental Engineer

RJM/nj

xc: J. Oskam
File 3.6.4.2

Estech, Inc.

December 22, 1982

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
P. O. Box 1000
Bradenton, Florida 33506

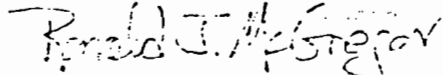
Dear Mr. Eckenrod:

In my letter to you on December 17, 1982, a typographical error was made regarding the deadline extension date. Please be advised that the March 3 date should have been March 30, 1983.

Please let me know if you have any questions.

Very truly yours,

ESTECH, INC.


Ronald J. McGregor
Environmental Engineer

RJM/nj

xc: J. Oskam
File 3.6.4.2



MANATEE COUNTY GOVERNMENT

ATL December ~~28~~³⁰, 1982

Mr. Ronald J. McGregor
Environmental Engineer
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, Florida 33507

RE: Estech Duette Mine
Operating Permit Application

Dear Mr. McGregor:

Your December 17, 1982 request for additional time to respond to the September 15, 1982 letter from the Phosphate Mining Coordinator is hereby granted. The additional information will be due no later than March 30, 1983 at which time the County will commence the compliance review of the subject application.

Sincerely,

R. V. Ellis

for Robert F. Fernandez
County Administrator

xc: Board of County Commissioners
Keith F. Roberts, Esq.
Richard M. Eckenrod
John Oskam, Estech, Inc.

Esotech, Inc.

JOHN OSKAM
Vice President Mining

March 28, 1983

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
Post Office Box 1000
Bradenton, Florida 33506

RE: Operating Permit Application - Duette Mine

Dear Mr. Eckenrod:

We herewith submit the additional information requested by you in your letter of September 15, 1982. This information together with our original submittals will be sufficient for a full review of our application and approval of an Operating Permit for the Duette Mine. As you are aware, we take the position that our operating permit application is subject only to the requirements of Section VI (16) of the Manatee County Zoning Ordinance effective November, 1979. However, in an effort to secure an expeditious review of our application, we have submitted all information required in connection with an Operating Permit Application under the Manatee County Mining Ordinance (Ordinance 81-22). We have gone to great expense compiling the requested information to satisfy the County's concern regarding our mining operation and to prove that we can and will comply with all of the requirements of the 1979 zoning ordinance, as well as the 1981 mining ordinance.

In order to provide the additional information you requested, we had to undertake more specific and comprehensive engineering analyses than had been anticipated or required of previously approved phosphate mining operations. As a result of the detailed engineering, refinements in our operational plans have been required, and they are specified in the "Additional Information" and "Refined Information" submitted herewith.

In response to your request for a "best possible technology" analysis, we have submitted a report entitled "Determination of Best Possible Technology for Duette Mine" compiled by Jacobs Engineering. The format utilized for this report is that which was approved in the City of Bradenton/Ward Lake

continued....

EXHIBIT N

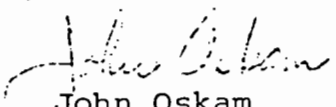
Mr. Richard M. Eckenrod
March 28, 1983
Page Two

operating permit proceedings. We believe the Jacobs report, together with other documentation submitted to the County, including the EPA Environmental Impact Statement, demonstrates its use of best possible technology in our mining operations.

We understand that this application will be reviewed by various County Departments. We would appreciate receiving, as soon as possible, a list of these County Departments, as well as the names of the individuals in each department who will be coordinating the review.

Sincerely yours,

ESTECH, INC.

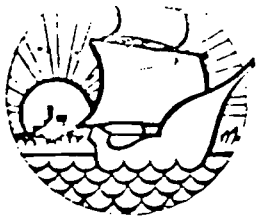

John Oskam
Vice President Mining

JO/nj

xc: R. J. McGregor

Enclosures:

15 sets of "Additional" and
"Refined" Information



MANATEE COUNTY GOVERNMENT

HAND-DELIVERED

Rec. 4-13-83 TRJA

April 13, 1983

Mr. John Oskam
Vice President Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, Florida 33507

Re: Operating Permit Application

Dear Mr. Oskam:

We are in receipt of the additional materials submitted in connection with Estech's Operating Permit application for the Duette Mine. Those materials were submitted on March 29, 1983, following Estech's two requests for extension to March 30, 1983. Estech's mining activities at the Duette Mine are subject to the Manatee County Mining and Reclamation Ordinance No. 81-22.

As you know, the Manatee County Operating Permit has always been the final approval necessary before mining and reclamation activities can occur in the County. Among other things, this ensures that Manatee County will have a complete picture of the mine and that the mining plan is consistent with plans approved by other agencies. Therefore, all other necessary permits must be submitted along with the Operating Permit application. You have not furnished copies of all necessary permits from federal and state agencies, which are required contents for all Operating Permit applications under Section III.B.2. of the Manatee County Mining and Reclamation Ordinance. This requirement was clearly noted in Manatee County's letter to you dated September 15, 1982. Specifically, Estech has not submitted the groundwater permit required from the Department of Environmental Regulation, the approved Conceptual Reclamation Plan from the Department of Natural Resources, or the NPDES permit required from EPA. Therefore, the 90-day compliance review period in Section IV.A.2. of the Ordinance cannot commence at this time.

Manatee County will, however, internally review and discuss the submitted materials to avoid unnecessary delay and expedite consideration of the application. Following Estech's submission of all

EXHIBIT C

PHOSPHATE MINING COORDINATOR • (813) 748-4501 Ext. 380

P.O. Box 1000, Bradenton, Florida 33506

the required contents enumerated in Section III.B. of the Ordinance, including the NPDES, conceptual reclamation, and groundwater permits, Manatee County will issue a final completeness determination within 15 days.

As part of this interim, internal review and to avoid further delay, we will advise you of certain additional information that was still not furnished with your most recent submission or that might otherwise come to light during the review. In the meantime, you may want to address at least the following issues:

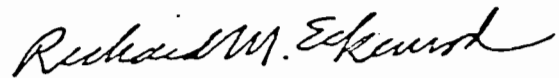
1. Final engineering design drawings and specifications for the following facilities and equipment:
 - o The railroad spur connecting the mine site with existing trackage;
 - o All water recirculation facilities, reverse osmosis facility and related recycle water preparation facilities;
 - o All drainage and non-point source control facilities external to the water recirculation system;
 - o Air pollution control facilities for the carbon regeneration kiln.
2. Provide a plan detailing the proposed method of disposal of excess water at the end of the ore extraction phase of mining.
3. The engineering data, computations, and assumptions which support each of the conclusions regarding ground and surface water quantity and quality impacts have not been presented in sufficient detail to permit verification of the conclusion. The assessment of water quality and quantity impacts should address the impacts on affected aquifers and surface waterbodies.
4. Describe the disruption of normal traffic movement resulting from rail transportation. Describe truck transportation that will occur during railroad emergency conditions, and the resulting impacts.

Mr. John Oskam
April 13, 1983
Page Three

5. Provide plans demonstrating compliance with the reclamation requirements specified in Manatee County Ordinance No. 81-22.

We appreciate the effort Estech has made in compiling the submitted materials. Please feel free to notify me if you have any questions.

Sincerely,



Richard M. Eckenrod
Phosphate Mining Coordinator

RME:jk

xc: Board of County Commissioners
Bob Fernandez, County Administrator
John R. Blue, Esquire

Estech, Inc.

RJM

April 27, 1983

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
P. O. Box 1000
Bradenton, Florida 33507

RE: Operating Permit Application - Duette Mine

Dear Mr. Eckenrod:

We have reviewed your letter of April 13, 1983 regarding the completeness of our operating permit application. We are very pleased that Manatee County will review the additional information that we submitted in order to avoid unnecessary delay and to expedite consideration of the application. Our project personnel are ready and able to answer any questions that may arise and they would be pleased to meet with you to further discuss our plans for mining.

We believe that you can reduce delay even further if you would reconsider your stance that you must wait for the NPDES permit, ground water permit and conceptual reclamation plan to be approved before our application can be judged complete. Your interpretation of the ordinance in this regard contradicts its legislative history. As shown in the attached letter by Mr. Greene to Mr. Oskam, the ordinance was specifically revised in order to allow an application to be judged complete and be processed prior to receipt of all permits.

In your letter, you stated that we are subject to the Manatee County Mining and Reclamation Ordinance No. 81-22. Although we continue to provide you with the information required under this ordinance, and to demonstrate our compliance with its performance standards, we still contend that we are properly regulated under Section VI(16) of the Manatee County Zoning Ordinance, effective November 1979.

continued....

EXHIBIT P

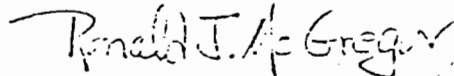
Mr. Richard M. Eckenrod
April 27, 1983
Page Two

Our goal is to construct and operate the Duette Mine in an environmentally sound and humanly safe manner. Estech is dedicated to this goal and to the full compliance with all applicable laws and regulations. We continue to believe that Manatee County can fulfill its responsibility to protect the public health, safety and welfare while permitting the operation of the Duette Mine.

Please do not hesitate to contact me with your questions or concerns.

Very truly yours,

ESTECH, INC.



Ronald J. McGregor
Environmental Engineer

RJM/nj

xc: Board of Commissioners, Manatee County
J. Oskam
J. Blue
B. Greene
W. Turner

File 3.6.4.2

Estech, Inc.

JOHN OSKAM
Vice President Mining

August 30, 1983

Mr. Richard Eckenrod
Phosphate Mining Coordinator
Manatee County
Post Office Box 1000
Bradenton, Florida 33506

Re: Operating Permit Application - Duette Mine

Dear Mr. Eckenrod:

We herewith submit additional information requested by you in your letter of April 13, 1983. This information includes engineering specifications and design drawings for certain aspects of the mining operation. These engineering specifications and design drawings are a result of more detailed engineering analysis and are in conformance with requirements of Manatee County's Ordinances. (This information far exceeds that required of any prior permittee under either ordinance.) The refined information provided for various aspects of the mining operation replaces that previously submitted and modifies the application accordingly. Construction Plans will be submitted in connection with the application for building permits prior to construction of any facilities.

As you know, we are in the process of obtaining a DER Ground-water Permit and DNR Conceptual Reclamation Plan Approval. We would suggest that if Manatee County finds our Operating Permit Application approvable except for the above permits, then the Operating Permit could be issued conditioned upon subsequent approval of the Ground-water Permit from DER and the DNR Conceptual Reclamation Plan Approval. This procedure would be similar to that followed in the recent City of Bradenton/Ward Lake Operating Permit proceeding.

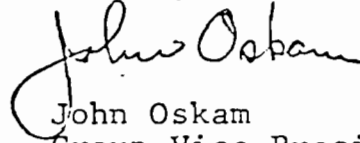
We are submitting this information in order to answer the most recent questions raised by the County and its consultants and to expedite review of Estech's Operating Permit Application. By submitting this additional information, we are not waiving any contention

Mr. Richard Eckenrod
August 30, 1983
Page two

that our Operating Permit Application is subject only to the requirements of Section VI, (16) of the Manatee County Zoning Ordinance effective November, 1979.

Yours truly,

ESTECH, INC.



John Oskam
Group Vice President,
Phosphate

JO:nj

Enclosures



MANATEE COUNTY GOVERNMENT

September 23, 1983

Mr. John Oskam
Vice President Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, FL 33507

RE: Duette Mine
Operating Permit Application

DATE: 9-26-83
FILE NO: 3668-76
FILE IN: _____
REF: _____
ROUTE TO: _____
RETURN TO: _____

Dear Mr. Oskam:

We have reviewed the information submitted by Estech, Inc. on August 30, 1983, for its application for an operating permit to construct and operate a 10,000 acre phosphate mine in eastern Manatee County. The information is inadequate to render your application complete under Manatee County Mining and Reclamation Ordinance 81-22, and it does not satisfactorily respond to our letter of April 13, 1983. For example, the following fundamental and significant issues have yet to be adequately addressed in the application, despite previous requests for the information:

1. Design Drawings and Specifications

a. Railroad facilities.

The requirement that engineering design drawings and specifications for offsite railroad facilities be provided with the Operating Permit application is necessary to ensure that the proposed mode of product transportation - railroad - will be implemented in a manner which minimizes interruption of normal traffic flow; safeguards the public and environment from potential accidents and nuisances associated with rail transport; is compatible with adjacent land uses;

and which is generally consistent with the public interest. Therefore, the requested engineering design drawings and specifications for the offsite railroad must be provided for the Operating Permit application to be considered complete.

b. Water recirculation facilities.

- (1) For the past two years, Estech has been proposing the use of reverse osmosis/carbon filtration units as part of its in-plant water treatment system. Estech has now significantly changed its water treatment plans by abandoning the reverse osmosis/carbon filtration units. Please explain the reasons for the change in plans and provide the information necessary to document that the present plans will meet the water quality requirements of the beneficiation process.
- (2) Engineering design drawings and specifications for the remaining elements of in-plant water treatment system have still not been sufficiently described. The conceptual layout of the plant as provided in the August 30 submittal does not have sufficient information for the County to verify that the facility will serve its purpose.

c. Drainage facilities.

In order to demonstrate compliance with Section III. C.6 of Ordinance No. 81-22, the applicant must provide engineering drawings and specifications for any drainage facilities and equipment which are necessary to bypass runoff from areas external to the water recirculation facilities around the active mining areas. In designing the drainage facilities, the applicant should be mindful of the need to comply with Section 205F-5 of the Manatee County Comprehensive Zoning and Land Development Code (Ordinance No. 81-4).

2. Disposal of Excess Water

The spray irrigation disposal concept described in the Ardaman Report "Water Balance Calculations and Post-Mining Water Management System" constitutes a significant modification to the Water Management Plan for the Duette

Mine. More information regarding the design, operation, and associated impacts of the proposed disposal system is necessary to determine whether the new design satisfies applicable operating permit criteria.

Other than specifying the acreage of the irrigation system, the application contains no information as to where the acreage will be located; no documentation of the suitability of soils and vegetation at the chosen location; no description of the expected irrigation schedule and quantities taking into account natural variations in rainfall and evapotranspiration; and no assessment of the water quality and quantity impacts associated with the irrigation system. The information which is lacking, along with any supporting data, calculations, and assumptions, is the type of information the County must have to verify that the system will serve its purpose without creating unacceptable adverse impacts.

A stated objective of the proposed spray irrigation system is to improve the quality of water in the reclaimed lakes. The mass balance computation referred to in the August 30 submittal is the basis for predicting the rate at which water quality in the lakes will improve with time. Yet, the application contains no information as to how those crucial computations were made. Once again, this type of information must be provided before the application can be considered complete.

3. Water Quantity and Quality Impacts

One of the County's major concerns regarding the proposed Duette Mine is its potentially adverse impacts on the quantity and quality of water entering the Lake Manatee Reservoir. Because of the location of the mine in the Lake Manatee watershed and the direct connection of the surficial aquifer underlying the Estech site with the surface streams and reservoirs, it is imperative that the various ways in which the mine might adversely affect water quality and quantity be fully and carefully evaluated.

Not all of the potential water quality and quantity impacts have been addressed in the application, and those which have been were not adequately documented. Throughout the Estech Operating Permit application review process, County staff has requested Estech to adequately document the steps by which it reached its conclusions regarding the water quantity and quality impacts. Because of the potentially serious effects of the proposed mine on a major drinking water supply,

the County staff must verify that the conclusions reached by Estech's technical experts are based on reliable data and good scientific and engineering practices. In spite of previous requests by the County for the technical documentation to make that verification possible, Estech has not provided the information to date. Some of the many water quantity and quality issues which have not been adequately addressed or documented to date include:

- (1) A comprehensive chemical characterization of the process water which will be discharged to the ground and possibly surface waters has yet to be provided. That characterization should include among other things, any radionuclides enhanced by the mining process and identify any chemicals used in the mining and beneficiation process which may be harmful to humans, wildlife, or aquatic species.
- (2) Data on the existing hydrologic, chemical and biological properties of the surficial aquifer should be provided in sufficient detail to enable reliable prediction of water quality and quantity impacts.
- (3) The groundwater impact analysis should describe the anticipated changes in the surficial aquifer, the Hawthorn/Tampa Formation, and the lower Floridan aquifer resulting from the discharge of pollutants into the groundwater and fully document the methodology used to predict the rate and direction of leachate plume movement and attenuation rates.

4. Transportation Analysis

Under the provisions of Ordinance No. 81-22, Estech is required to assess the disruption of normal traffic movement resulting from ore shipment. Since rail is the proposed mode of shipment, the degree of traffic disruption cannot reasonably be assessed until the rail line has been located. Before the application can be considered complete, Estech must locate the rail line and assess the impact on traffic movement.

Mr. John Oskam
September 23, 1983
Page Five

Ordinance No. 81-22 further requires and assessment of roadway impacts which may result from shipment of phosphate by truck. If Estech wishes to have the option of shipping by truck when rail service is not available, it will be necessary to assess the impacts associated with the trucking once the route(s) has been established. The impact assessment should address traffic flow disruption; roadway structural impacts and related maintenance requirements; and public safety and environmental impacts; and existing and potential cumulative impacts.

5. Reclamation

The revised DNR Conceptual Reclamation Plan application and the information included in response to No. 5 of the August 30 submittal is not sufficient to demonstrate compliance with the reclamation criteria of Manatee County Ordinance 81-22. To demonstrate compliance with the criteria, Estech must provide design plans for each reclaimed land form or water body, and an explanation of how the physical and biological features of the design will be implemented and maintained in a manner which satisfies the reclamation criteria. The applicant must, of course, provide the technical documentation necessary to support its design and implementation plans.

As in the past, Manatee County will continue to assist you and your experts in completing the application. We also will continue to conduct an interim, internal review of the information that has been submitted until Estech has filed a complete operating permit application. After the application is complete and Estech has received a DER groundwater permit, DNR Conceptual Reclamation Plan approval, and any other permits which may be required, Manatee County will formally conduct completeness and compliance reviews within the times prescribed by Manatee County Ordinance 81-22.

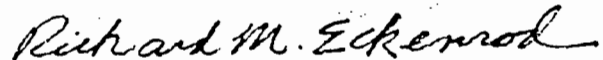
We have considered your request that the County prematurely proceed with the processing of the Operating Permit application and issue the permit pending issuance of the DER, DNR, and other required permits. Disregarding the requirement of first obtaining those permits, it would be impossible to properly process your application at this time because it is still inadequate. Nevertheless, such processing in the absence of other required permits would be contrary to Manatee County Ordinance 81-22 and would frustrate one of the important policies behind that requirement, which is, that Manatee County be able to review mining plans which are not being continually changed to obtain permits from other agencies.

Mr. John Oskam
September 23, 1983
Page Six

The importance and relevance of that requirement is clearly illustrated in the case of Estech's mining and reclamation plans which have a history of significant changes. For instance, in order to obtain a DER surface water discharge permit, Estech dramatically changed its proposed wastewater discharge from nearly 4 million gallons per day to purportedly zero discharge. In addition, within the last few months, Estech changed its DNR Conceptual Reclamation Plan by tripling the area of lakes that will exist after reclamation. During the Operating Permit review, Estech abandoned its plans for a reverse osmosis water preparation facility and it very recently decided to dispose of more than 10 billion gallons of substandard process water through a spray irrigation system, the location of which has not been specified. It therefore seems reasonable to expect that Estech's plans will continue to change over the remaining review period for the various state and federal permits. For the above reasons, we cannot waive the requirements of Ordinance 81-22 and prematurely proceed with the processing of the application.

Please feel free to call me if you have any questions or comments regarding this matter.

Sincerely,



Richard M. Eckenrod
Phosphate Mining Coordinator

RME:bko

xc: Board of County Commissioners
Bob Fernandez, County Administrator
John R. Blue, Esquire

JOHN OSKAM
Vice President Mining

March 28, 1983

Mr. William K. Hennessey
District Manager
State of Florida Department
of Environmental Regulation
7601 Highway 301 North
Tampa, Florida 33610-9544

RE: Groundwater Permit Application - Duette Mine

Dear Mr. Hennessey:

In compliance with the final order of the Secretary of DER dated May 28, 1982, and the affirmance of that order by the First District Court of Appeal which was final on March 24, 1983, we hereby submit the attached application for a groundwater discharge permit for our Duette Mine. We are also submitting various reports and other documents in support of this application, including process water quality information based on a bench scale simulation of the Duette process (see attached Table of Contents). The plan of study for this simulation was reviewed and approved during informal meetings last fall, attended by Harry Kerns as well as members of DER's General Counsel's office and other Tallahassee staff members.

For convenience, we have used DER Form 17-1.216(3) for this purpose even though a conditional surface water discharge permit and NPDES certification have already been granted and sustained on appeal. Because we are on the "cusp" of the implementation of the new groundwater permitting program, we are in the position of filing a supplement to an application which has already been acted upon. To avoid any possible confusion and to facilitate the consideration of this application with the "judicious promptness" indicated in the Secretary's final order, we are also forwarding herewith the portion of our industrial wastewater permit application which contains the applicant identification and source description information. Moreover, we have determined in consultation with Pedro Hernandez of your staff that because this application is technically considered a supplement to a previously submitted application, no additional processing fee is required.

continued..

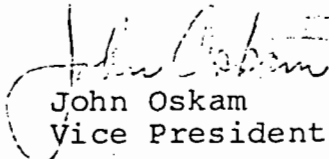
Mr. William K. Hennessey
March 28, 1983
Page Two

We believe that this submission is in full compliance with the Secretary's final order and the Department's procedures. We understand, however, that certain aspects of this matter are unique, particularly as to application procedures. For this reason, we request that you indicate your concurrence in our procedural approach by return mail as soon as you have had an opportunity to review the attachments.

Please feel free to contact me if you have any comments. Questions of a technical nature should be directed to Ron McGregor (813-758-4684), who will be coordinating this permitting process.

Sincerely yours,

ESTECH, INC.


John Oskam
Vice President Mining

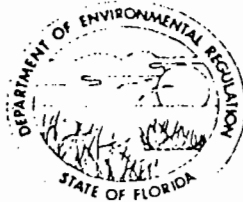
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Attachment

xc: W. Preismeyer (w/attachment)
W. Hopping (w/attachment)
R. Rhodes (w/attachment)
B. Earl (w/o attachment)
R. Nelson (w/o attachment)
T. Reese (w/o attachment)
M. Smallwood (w/o attachment)
V. Tschinkel (w/o attachment)
M. Greenwood (w/o attachment)
R. McGregor (w/o attachment)

RECEIVED MAY 18 1983

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION



SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610-9544

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

WILLIAM K. HENNESSEY
DISTRICT MANAGER

May 13, 1983

Mr. John Oskam
Vice President Mining
Estech, Inc.
Post Office Box 208
Bartow, FL 33830

RE: Groundwater Permit Application - Duette Mine - IC41-68519

Dear Mr Oskam:

Receipt of the referenced application is acknowledged. Your application has been reviewed by the staff of the State of Florida Department of Environmental Regulation as well as the Manatee County Health Department. In addition, Manatee County staff and consultants have provided comments. In all cases, after the review of the application, it has been deemed incomplete. The comments from all parties mentioned above are incorporated in the Department's request for additional information.

Provision of the information requested in the three enclosed attachments is needed for the purpose of completing the application. The processing of the above referenced application will resume upon receipt of the requested information.

If you have any questions please do not hesitate to call on us.

Sincerely,

Pedro A. Hernandez, P.E.
Industrial Waste Section

PAH/rb
cc: Ronald J. Gregor, Estech
Bill Deane, OGC
Bill Tiffany, MCPC

J. OSKAM

MAY 16 1983

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EXHIBIT T

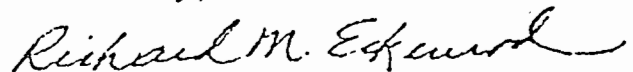
Dan A. Williams, P.E.
May 11, 1983
Page Twelve

Comment 14: A discrepancy exists on page 10 of Attachment VI regarding the sulfate reduction coefficient. The applicant should clarify whether 0.8 or 1.0 was used for estimation of insitu sulfate reduction.

Comment 15: As part of the impact analysis, please provide areal contours of sulfate concentration around the mine site and indicate the total volume of water in the surficial aquifer affected by the discharge.

We appreciate the opportunity to comment on the subject application. Please do not hesitate to call me if you have any questions regarding our comments.

Sincerely,



Richard M. Eckenrod
Phosphate Mining Coordinator

RME:jk

xc: Board of County Commissioners
John Ambrusko, M.D.
William Deane, Esquire
Rodney DeHan
Ronald J. McGregor
Howard Rhodes
Keith F. Roberts, Esquire

Comment 5: All methods by which the leachate plume might interact with surface water bodies should be quantitatively assessed and documented.

Comment 6: Data in Tables 8 through 11, Attachment VI, suggests that the pH of the surficial aquifer may be lowered below the primary drinking water standard as a result of biochemical reduction of sulfate. The applicant should quantitatively assess this potential impact on the groundwater system including the effect of a pH change on other constituents in the soil and groundwater.

Comment 7: What evidence does the applicant have that native Desulfovibrio bacteria which normally exist under saturated, anerobic conditions in the soil will survive the strip mining process in which their natural environment is drained and concurrently exposed to air?

Comment 8: The applicant should evaluate how the increased hydrogen sulfide levels will affect the odor parameter of the secondary drinking water standards.

Comment 9: The applicant should explain why soil samples collected for the leaching tests (See Table 4, Attachment VI) were restricted to the depth range of 17 to 41 feet.

Comment 10: What evidence does the applicant have that the Desulfovibrio bacteria can sustain metabolic and reproductive functions over the full depth of the mine cut?

Comment 11: Has the applicant considered what impact the discharge and attendant changes in groundwater chemistry (e.g. increased H₂S levels) might have on other soil organisms?

Comment 12: What evidence does the applicant have that the organic compounds in the leachate provide a sufficient source of carbon for the sulfate reducing bacteria (SRB)?

Comment 13: What evidence does the applicant have that other nutrients essential for SRB reproduction and maintenance are present in sufficient quantities to sustain the SRB population density and metabolic activity at levels high enough to achieve the sulfate reduction rates measured in the laboratory?

areally, vertically, and with time, must be quantified and methodology used for quantification thoroughly documented.

Effects of mounding on water table elevation and associated groundwater flow direction and rate should be described. Also increase in leakance for the Hawthorn/Tampa formation caused by the increased head in the surficial aquifer should be quantified.

Comment 2: The applicant should explain in more detail the assumptions and methodology used for the seepage calculations, providing the following information at a minimum:

- (a) The basis for assuming a permeability value of 10 feet per day and a porosity of 0.35.
- (b) The dimensions of ditches, water levels therein, and corresponding water levels in the surficial aquifer upon which the calculations were based.
- (c) An explanation of how the groundwater table in the vicinity of the seepage sources was predicted.
- (d) The methodology by which flow lines depicted in Figure 1 through 3 of Attachment V were constructed.
- (e) A step-by-step explanation of how the movement of the leachate front was predicted.

Comment 3: The applicant should explain the basis for the following statement on Page 3 of Attachment V:

"With dispersion, the concentration of non-reactive, non-absorbed substances within the plume at this location would be 50% of the original concentrations in the process water."

Comment 4: On Page 3 of Attachment V, the applicant indicates that the concentration of total dissolved solids will not exceed the secondary drinking water standard outside of a 100 foot zone of discharge or the property boundary. What is the basis for that conclusion?

to indicate when recycle water had stabilized. Explain why other water quality parameters would necessarily reach stable concentrations at the same time or prior to fluoride stabilizing.

- (k) In a related question, explain through the use of a mass balance computation why a non-reactive, conservative constituent would not continue to increase in concentration in the system with time.
- (l) The simulation was apparently for a steady-state condition i.e. constant amounts of water and materials input and removed from the system. What variations in water quality would be expected under realistic conditions of variable inputs and outputs?

ISSUE NO. 5: FUTURE POLLUTION SOURCES IN THE VICINITY OF THE SITE

Comment 1: The Duette Mine site is bordered by properties owned by other mining companies which may be expected to seek permits to mine those lands in the future. The applicant's response to Question 6 on Page 2 of 2 of DER Form 17-1.216(1) should be expanded to address these expected future sources of pollution and the potential cumulative impact of those sources in conjunction with the Duette Mine.

ISSUE NO. 6: IMPACT ANALYSIS

Comment 1: The impact analysis does not adequately describe the anticipated changes in the complete aquifer system, resulting from the discharge of pollutants into the groundwater. The methodology used to predict the rate and direction of leachate plume movement and the anticipated rate of attenuation must be fully documented. Predictions of future plume movement, during and after the completion of mine operations, should be provided and methodology for determination documented. Changes in the chemical composition of the leachate plume,

in view of the proximity of the reservoir to the East Fork of the Manatee River.

Comment 10: The applicant should specifically identify the point at which rock dryer scrubber wastes are discharged into the water recirculation system.

Comment 11: Background water quality in the surficial aquifer does not reflect the elevated levels of sulfate found in the process simulation. The applicant should explain exactly what steps in the mining and beneficiation process are releasing sulfate from the gypsum associated with the matrix.

Comment 12: The applicant relies on the results of the Mine Process Simulation, Attachment VIII, to establish the quality of recycle water. The following information would be helpful in evaluating the reliability of those test results:

- (a) What length of time was required for each batch run?
- (b) How much water was input and withdrawn on each run?
- (c) What was the total volume of water in the system during each run?
- (d) How many samples were analyzed for the full parameter list?
- (e) How long were samples held prior to analysis?
- (f) How were the samples preserved?
- (g) Identify the method used for analysis of each parameter by source and method number.
- (h) What other parameters were measured beyond those provided in the application?
- (i) What were the results of those measurement?
- (j) Fluoride was selected as the "control parameter"

Comment 6: Construction and operational plans of the following facilities and structures should be provided in greater detail:

- (a) Design of embankments around sand-clay mix disposal areas.
- (b) Recycle water preparation facility.
- (c) Operation of the sand-clay mix disposal areas describing the total quantity of solid and liquid wastes disposed of in the settling areas including the quantity of wastewater recharge to the overburden spoil.

Comment 7: The only sites of groundwater discharge considered in the application were ditches and embankments around the periphery of the active mining areas. Inasmuch as the applicant has not requested that a single zone of discharge be established for the multiple discharge sites on the property, seepage quantities should be estimated for each discharge site on the property.

Among the discharge sites which were neglected in the application are the mine cuts themselves. Discharges into overburden spoil in mined-out pits may be expected to occur when transport water of the sand-clay mix slurry is introduced into the pits or when excess recycle water is pumped into the pits to store excess recycle water as part of the water management plan.

Comment 8: The application should include a detailed description of the mine water management system. An understanding of the procedures, structures, and equipment which Estech will use to route recycle water among the various impoundments in the water management system is essential to verify the reliability of the seepage and discharge estimates.

Comment 9: In connection with Comment 8, the applicant should specify the conditions under which the 210-acre reservoir will be used. The applicant should also identify the frequency and duration with which water levels in the reservoir are expected to exceed 95 feet MSL. An accurate estimate of seepage from the reservoir is particularly important

Comment 2: Very little information is provided in the application on the rate, chemical composition, and total volume of the waste products, including clays, sand tailings and wastes from the recycle water preparation facility. The pollutant sources should be fully documented, and the concentration of spent reagents associated with the solid waste products should also be quantified. The applicant should also describe the geometry of mine cuts into which the wastes are deposited.

Comment 3: The chemical characterization of the leachate is incomplete with respect to many constituents including all of the parameters for which Class I-A water quality standards exist which are not otherwise covered by primary and secondary drinking water standards. Also the characterization neglects potential organic contaminants and "free-forms" which may originate from reagents used in the beneficiation process.

Comment 4: Based on statements made in Attachment VII, a final decision has not been made regarding what type, if any, recycle water preparation facility will be used. Regardless of the type of facility chosen, its operation is likely to result in additional reagents and contaminants being introduced to the water recirculation system. The applicant should finalize design plans and specifications for the recycle water preparation facility and demonstrate how the recycle water quality will be affected by the use of that facility.

Comment 5: In connection with the Water Balance Report, Attachment IV, the applicant should answer the following questions:

- (a) How much of the "available water storage" (Table 3 of Attachment IV) in the year 2005 will be above final grade?
- (b) How much storage volume will be available below grade at the completion of reclamation?
- (c) In the event cumulative storage at the end of the ore extraction phase of mining exceeds the storage available at the end of reclamation, how will the excess water be disposed?

by Section 17-4.245(6)(d), F.A.C.

Comment 10: The background groundwater quality description is incomplete with respect to certain parameters which should also be included in the wastewater characterization. (See Comment No. 4, Issue No. 3) At a minimum, any additional parameters measured in the wastewater which are above or even approach Class I-A or G-II standards should also be measured in the background wells. Additionally, any priority organic pollutants, radionuclides, or "free-forms" which might occur in the proposed discharge should be measured in the background wells.

Comment 11: Sampling, preservation, and analysis procedures for each water quality parameter measured or proposed for measurement in the background, intermediate, or compliance wells should be specified. The analytical procedures should be identified by number in addition to source.

Comment 12: Background water quality characterization should include the producing zones with the Hawthorn/Tampa formation and the lower Floridan aquifer.

Comment 13: Page 33 of Attachment I of the application describes certain "solution features" of the mine site. The applicant should identify the extent to which these "solution features" penetrate the surficial aquifer and the Hawthorn/Tampa formation. Identify locations of standard penetration tests in the solution features.

ISSUE NO. 4: WASTE CHARACTERIZATION AND DISPOSAL PLANS

Comment 1: The sources, quantities, chemical composition, method of discharge, and disposal site locations and geometry for solid and liquid wastes generated by the mine should be described more thoroughly and documented, where appropriate, with engineering data and computations. The construction and operational features of the waste disposal facilities and pollutant sources should also be described in greater detail. Specific examples of deficiencies and additional information needs are provided in Comments 2 through 12 below.

Dan A. Williams, P.E.
May 11, 1983
Page Four

regime for the aquifer systems, must be provided. Specific deficiencies in the baseline which have been identified up to this point are described in Comments 2 through 13 below. In each instance, the density of field data points should be adequate to describe the variability of properties within each geologic unit for each phase of mining from the pre-mining through the post-reclamation conditions.

Comment 2: The rate and direction of flow in the surficial aquifer, the Hawthorn/Tampa formation, and the lower Floridan aquifer should be provided for both the wet and dry seasons. Water table contours and potentiometric surface elevations for the underlying aquifers should also be provided for the wet and dry seasons, a drought year, a wet year, and an average year.

Comment 3: The lithology of Hawthorn/Tampa formation underlying the property should be specifically described along with the thickness and areal extent of water producing zones within that unit.

Comment 4: The confining units underlying the mine site should be described and the leakance values associated with each unit should be provided. Changes in leakance values associated with removal of matrix should also be discussed.

Comment 5: Horizontal and vertical permeabilities and porosity of the surficial aquifer, the Bone Valley formation, and the underlying aquifers should be provided.

Comment 6: The transmissivity or hydraulic conductivity of producing zones within the Hawthorn/Tampa formation should be provided.

Comment 7: Cones of depression of water supply wells and monitor wells within a one mile radius of the site or potentially affected by the discharge should be provided.

Comment 8: Available chronological information of water levels in the monitor wells should be provided.

Comment 9: No information has been provided on soils and surface water drainage systems surrounding the site as required

ISSUE NO. 2: MONITORING PLAN - WELL CONSTRUCTION AND USE

Comment 1: Among the required contents of a monitoring plan as itemized in Section 17-4.245(6)(d), F.A.C. are questions pertaining to the location, construction, and use of monitoring wells and water supply wells. In general, the applicant has either not responded at all or not responded in sufficient detail on this issue. Specific examples of omissions or insufficient data are provided in Comments 2 through 5 below.

Comment 2: The applicant should describe the intended use of each monitoring well i.e. background, intermediate, or compliance. The applicant should also identify the specific effluent sites (such as the initial settling area, mine cuts, ditches, and plant facilities) that each well is intended to monitor and explain the rationale for the location of each well.

Comment 3: The applicant should provide plans for monitoring producing zones within the Hawthorn/Tampa formation and the lower Floridan aquifer.

Comment 4: As built drawings and specifications should be provided for each monitor well and water supply well existing within a one mile radius of each site or potentially affected by the discharge. Design drawings and specifications should be provided for proposed wells.

Comment 5: A schedule for abandonment of each monitoring, water supply and recharge well along with an abandonment procedure should be provided.

ISSUE NO. 3: BASELINE DESCRIPTION OF PROPERTY AND VICINITY

Comment 1: Baseline data on the hydrologic, physical, chemical and biological properties of the surface and subsurface environments on and adjacent to the mine site have not been described in sufficient detail. Site specific data, adequate to describe the present and future groundwater flow

Dan A. Williams, P.E.
May 11, 1983
Page Two

pounded by the fact that mineable phosphate reserves are found throughout the Lake Manatee Watershed of which approximately 35,000 acres are presently owned by mining interests. Impacts of the Duette Mine alone will be magnified by the cumulative effect of other mines.

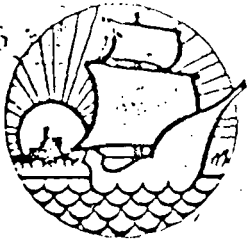
As you and the FDER staff review Estech's application, please remain mindful of what the County has at stake and how the Department's decision will affect the County's present and future water supplies. We also urge that you carefully consider comments of the Manatee County Health Department whose review of the subject application was coordinated with this office.

ISSUE NO. 1: APPLICATION FORMS AND ORGANIZATION OF APPLICANT'S
RESPONSES

Comment 1: In general, it is difficult for one reviewing the application to determine which sections of the various attachments contain the information relevant to a particular question on the application form. Furthermore, the references to certain attachments (e.g. referencing the Water Balance Report, Attachment IV, for information on water quality in monitor wells) are clearly in error. At a minimum, the application should organize his responses to the various questions to clearly indicate the specific sections of the application where the information and answers can be found.

Comment 2: The industrial wastewater permit application for the Waste Clay Impoundment, which constitutes part of the groundwater permit application, should be updated to reflect the various changes in the mining and waste disposal plans since the application was submitted in 1980. The applicant should not fail to complete the section relating to groundwater discharges under "ULTIMATE EFFLUENT DISPOSAL."

Comment 3: The completed DER Form 17-1.216(1) included with the subject application is evidently applicable only to "Existing Sources". Since the information required on Form 17-1.216(1) corresponds to the required contents of a monitoring plan as per Section 17-4.245(6)(d), F.A.C., the information should be considered as a response to that requirement.



Best Available Copy

MANATEE COUNTY GOVERNMENT

HAND-DELIVERED

May 11, 1983

Mr. Dan A. Williams, P.E.
District Engineer
Air, I.W., H.W. Programs
Florida Department of Environmental
Regulation, Southwest District
7601 Highway 301 North
Tampa, Florida 33610-9544

Re: Estech, Inc.
Groundwater Permit Application
for Duette Mine

Dear Mr. Williams:

This letter provides comments of the Manatee County staff and consultants regarding the completeness of Estech, Inc.'s groundwater permit application for the proposed Duette Mine. In preparing these comments, we have attempted to be as specific as possible. However, because of the magnitude, complexity and potential consequences of the proposed wastewater disposal plan, we anticipate that follow-up questions for the applicant may be necessary to assure the Department of Environmental Regulation has all of the information it needs to determine whether the standards for permit issuance (Section 17-4.07, F.A.C.) have been met.

As you know, approximately 85 percent of the proposed mine lies in the watershed of the Lake Manatee Reservoir, a regional water supply serving more than 230,000 people in Manatee and Sarasota counties. Estech's proposed mining and reclamation plans have the potential for widespread and long-term effects on that water supply which is derived in part from groundwater sources, as well as from surface runoff. The impacts on other aquifers underlying the site which may not be linked to the County's present water supply but which will play a role in the future are also vital considerations.

The potential danger to the County's water supply is com-

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STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610-9544



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

WILLIAM K. HENNESSEY
DISTRICT MANAGER

July 6, 1983

Mr. John Oskam
Vice President Mining
Estech, Inc.
Post Office Box 208
Bartow, FL 33830

RE: Groundwater Permit Application - Duette Mine - IC41-68519

Dear Mr. Oskam:

This letter will confirm our understanding of the agreement reached during the course of our meeting of June 9, 1983, concerning the above referenced permit application in conjunction with the Manatee County Health Department (MCHD) and the Manatee County Phosphate Mining Coordinator (MCPMC).

Our meeting reviewed each of the questions provided by the MCHD and the MCPMC which had been incorporated into the DER letter of incompleteness to you dated May 13, 1983.

As we discussed we concluded that DER was going to prepare a new letter of incompleteness based on the same questions received from MCHD & MCPMC plus our original set of additional requested information.

The Department is hereby requesting provision of the following information for the purpose of completing the application.

GROUNDWATER MONITORING

1. Please provide a discussion on groundwater flow as it will relate to each effluent site (such as the initial settling area, mine cuts, ditches, and plant facilities) and how each site will be monitored by each well or group of wells proposed for that site, [17-4.245(6)(d)].
2. Please clarify the intended designation of each proposed well as either background, intermediate or compliance, [Form 17-1.216(1)].

Mr. John Oskam
Estech, Inc.

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3. Please provide an expanded groundwater monitoring plan for monitoring within the Hawthorn/Tampa formation and the lower Floridan aquifer, [17-4.245(6)(g)(4)].
4. Please provide copies of the original drillers logs, SWFWMD well construction permit numbers and copies of the water well completion reports for the groundwater monitoring wells, [17-4.245(6)(d)].
5. Please provide location (latitude-longitude, surveyed if possible) and surveyed elevation (\pm .01 feet) for each monitoring well, [17-4.245(6)(d)].
6. Please provide a table indicating the following for each monitoring well:
 - a. well identification
 - b. lat./long. location
 - c. aquifer monitored
 - d. well depth
 - e. casing diameter
 - f. casing type (if PVC - glued or threaded?)
 - g. casing depth
 - h. screen type and slot size
 - i. land surface elevation and top of casing elevation
 - j. elevation range of the screen interval
 - k. lithologic description of the screen interval
 - l. specific capacity of the well
 - m. direction of groundwater flow for the interval screened at this location.
[17-4.245(6)(d)]
7. Please provide a detailed account of the sampling protocol utilized when water quality samples were and/or are to be obtained from the monitoring wells. This account should include:
 - a. pumping method
 - b. sample collection method
 - c. materials inventory that the sample contacted during collection
 - d. well evacuation details.
 1. method
 2. volume of water removed prior to sampling
 3. initial pH and specific conductance during evacuation
 4. final pH and specific conductance prior to sampling
 5. sample preservation details
 - e. a statement to the effect that FDER Standard Procedures or A.S.T.M. or EPA Methods were used, [17-4.245(6)(d) and 17-4.246].

8. Please discuss procedures to be utilized for monitoring well abandonment as well as the expected schedule for abandonment when wells are to be removed, [17-4.245(6)(d)].
9. Please provide depth, construction details and comment on the radius of influence for water supply wells and monitoring wells located within a one mile radius of the site, [17-4.245(6)(d)].
10. Please clearly identify the analytical procedures used in all water quality analysis, [17-4.245(6)(d) and 17-4.246(2)].
11. Provide background water quality characterization of production zones within the Hawthorn Formation, and the upper and lower Floridan aquifers, [17-4.245(6)(g)].
12. Provide background water quality characterization for parameters measured in the wastewater. The parameters to be measured shall include the standards for Class G-II Groundwaters plus Alkalinity, Ammonia (un-ionized), Beryllium, Chlorine, Cyanide, Dissolved Solids, Fluorides, Nickel, Nutrients, Oils and Greases, Pesticides & Herbicides (as detailed in Section 17-3.111(18) F.A.C.), Phenolic Compounds, Phthalate Esters, Polychlorinated Biphenyls and Specific Conductance. Additionally, any priority organic pollutants, radionuclides, or "free-forms" which might occur in the wastewater should be analyzed in the background waters. These parameters should be measured in the background wells, [17-4.245(6)(g)].
13. With regard to chemical parameters which naturally occur in the background, what will be the cumulative impact to the receiving groundwater (by the mine) for those parameters, [17-4.245(6)(d)]?
14. Please discuss mine cut geometry as it will relate to groundwater flow upon cut completion, fill and abandonment, [17-4.245(6)(d)].

GEOHYDROLOGIC AND HYDROSTRATIGRAPHIC ISSUES

15. Please provide an in-depth discussion on groundwater flow, as it occurs naturally, as it will relate to all aspects of the active facility, and as it will be expected from the closed facility after mining activities are complete, [17-4.245(6)(d)]. Supporting this discussion please provide the following:
 - a. The rate and direction of flow in the surficial aquifer, the Hawthorn/Tampa formation, and the lower Floridan aquifer should be provided for both the wet and dry seasons. Water table contours and potentiometric surface elevations for the underlying aquifers should also be provided for the wet and dry seasons, a drought year, a wet year, and an average year.

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- b. The lithology of the Hawthorn/Tampa formation underlying the property should be specifically described along with the thickness and areal extent of water producing zones within that unit.
- c. The confining units underlying the mine site should be described and the leakance values associated with each unit should be provided. Changes in leakance values associated with removal of matrix should also be discussed.
- d. Horizontal and vertical permeabilities and porosity of the surficial aquifer, the Bone Valley formation, and the underlying aquifers should be provided.
- e. The transmissivity or hydraulic conductivity of producing zones within the Hawthorn/Tampa formation should be provided.
- f. Available chronological information of water levels in the monitor wells should be provided.
- g. Provide information on soils and surface water drainage systems surrounding the site as required by Section 17-4.245(6)(d), F.A.C.
- h. Identify the extent to which "solution features" penetrate the surficial aquifer and the Hawthorn/Tampa formation. Identify locations of standard penetration tests in the solution features and provide the logs from the tests.

WASTE CHARACTERIZATION

16. Please provide additional information concerning the chemistry of materials to be used at the subject facility. This should include a detailed chemical breakdown of the chemicals and reagents utilized as process additives, [17-4.245(6)(d)].
17. Provide volatile organics priority pollutants scan of the fuel oils and kerosenes expected to be used in the flotation process, [17-4.245(6)(d)].
18. Please provide a full priority pollutants analysis of a few representative flotation process discharges, [17-4.245(6)(d)].
19. Discuss in detail the expected groundwater quality impact and fate of any organic priority pollutants found. The discussion should include information concerning the mobility and carcinogenicity of these volatile compounds, [17-4.245(6)(d)].

20. Please provide information concerning the volume of chemicals and reagents to be used, and total volume of the waste products, including clays, sand tailings and wastes from the recycle water preparation facility. The pollutant sources should be fully documented, and the concentration of spent reagents associated with the solid waste products should also be quantified. The applicant should also describe the geometry of mine cuts into which the wastes are deposited, [17-4.245(6)(d)].
21. Based on statements made in Attachment VII, a final decision has not been made regarding what type, if any, recycle water preparation facility will be used. Regardless of the type of facility chosen, its operation is likely to result in additional reagents and contaminants being introduced to the water recirculation system. The applicant should finalize design plans and specifications for the recycle water preparation facility and demonstrate how the recycle water quality will be affected by the use of the facility, [17-4.245(6)(d)].
22. In connection with the Water Balance Report, Attachment IV, the applicant should answer the following questions [17-4.245(6)(d):
 - a. How much of the "available water storage" (Table 3 of Attachment IV) in the year 2005 will be above final grade?
 - b. How much storage volume will be available below grade at the completion of reclamation?
 - c. In the event cumulative storage at the end of the ore extraction phase of mining exceeds the storage available at the end of reclamation, how will the excess water be disposed?
23. Construction and operational plans of the following facilities and structures should be provided in greater detail: [17-4.245(6)(d):
 - a. Design of embankments around sand-clay mix disposal areas.
 - b. Recycle water preparation facility.
 - c. Operation of the sand-clay mix disposal areas describing the total quantity of solid and liquid wastes disposed of in the settling area including the quantity of wastewater recharge to the overburden spoil.
24. The only sites of groundwater discharge considered in the application were ditches and embankments around the periphery of the active mining areas. Inasmuch as the applicant has not requested that a single zone of discharge be established for the multiple discharge sites on the property, seepage quantities should be estimated for each discharge site on the property.

Among the discharge sites which were neglected in the application are the mine cuts themselves. Discharges into overburden spoil in mined-out pits may be expected to occur when transport water of the sand-clay mix slurry is introduced into the pits or when excess recycle water is pumped into the pits to store excess recycle water as part of the water management plan, [17-4.245(4)(a)].

25. The application should include a detailed description of the mine water management system. An understanding of the procedures, structures, and equipment which Estech will use to route recycle water among the various impoundments in the water management system is essential to verify the reliability of the seepage and discharge estimates, [17-4.245(6)(d)].
26. In connection with Comment 8, the applicant should specify the conditions under which the 210-acre reservoir will be used. The applicant should also identify the frequency and duration with which water levels in the reservoir are expected to exceed 95 feet MSL. An accurate estimate of seepage from the reservoir is particularly important in view of the proximity of the reservoir to the East Fork of the Manatee River, [17-4.245(6)(d)].
27. The applicant should specifically identify the point at which rock dryer scrubber wastes are discharged into the water recirculation system, [17-4.245(6)(d)].
28. Background water quality in the surficial aquifer does not reflect the elevated levels of sulfate found in the process simulation. The applicant should explain exactly what steps in the mining and beneficiation process are releasing sulfate from the gypsum associated with the matrix.
29. The applicant relies on the results of the Mine Process Simulation, Attachment VIII, to establish the quality of recycle water. The following information would be helpful in evaluating the reliability of those test results [17-4.245(6)(d):
 - a. What length of time was required for each batch run?
 - b. How much water was input and withdrawn on each run?
 - c. What was the total volume of water in the system during each run?
 - d. How many samples were analyzed for the full parameter list?
 - e. How long were samples held prior to analysis?
 - f. How were the samples preserved?
 - g. Identify the method used for analysis of each parameter by source and method number.
 - h. What other parameters were measured beyond those provided in the application?

- i. What were the results of those measurement?
 - j. Fluoride was selected as the "control parameter" to indicate when recycle water had stabilized. Explain why other water quality parameters would necessarily reach stable concentrations at the same time or prior to fluoride stabilizing.
 - k. In a related question, explain through the use of a mass balance computation why a non-reactive, conservative constituent would not continue to increase in concentration in the system with time.
 - l. The simulation was apparently for a steady-state condition, i.e., constant amount of water and materials input and removed from the system. What variations in water quality would be expected under realistic conditions of variable inputs and outputs?
30. The impact analysis does not adequately describe the anticipated changes in the complete aquifer system, resulting from the discharge of pollutants into the groundwater. The methodology used to predict the rate and direction of leachate plume movement and the anticipated rate of attenuation must be fully documented. Predictions of future plume movement, during and after the completion of mine operations, should be provided and methodology for determination documented. Changes in the chemical composition of the leachate plume, areally, vertically, and with time, must be quantified and methodology used for quantification thoroughly documented, [17-4.07(1)].

Effects of mounding on water table elevation and associated groundwater flow direction and rate should be described. Also increase in leakance for the Hawthorn/Tampa formation caused by the increased head in the surficial aquifer should be quantified, [17-4.245(6)(d)].

31. The applicant should explain in more detail the assumptions and methodology used for the seepage calculations, providing the following information at a minimum [17-4.245(6)(d)]:
- a. The basis for assuming a permeability value of 10 feet per day and a porosity of 0.35.

- b. The dimensions of ditches, water levels therein, and corresponding water levels in the surficial aquifer upon which the calculations were based.
 - c. An explanation of how the groundwater table in the vicinity of the seepage sources was predicted.
 - d. The methodology by which flow lines depicted in Figures 1 through 3 of Attachment V were constructed.
 - e. A step-by-step explanation of how the movement of the leachate front was predicted.
32. The applicant should explain the basis for the following statement on Page 3 of Attachment V:
"With dispersion, the concentration of non-reactive, non-absorbed substance within the plume at this location would be 50% of the original concentrations in the process water."
33. On Page 3 of Attachment V, the applicant indicates that the concentration of total dissolved solids will not exceed the secondary drinking water standard outside of a 100 foot zone of discharge or the property boundary. What is the basis for that conclusion?
34. All methods by which the leachate plume might interact with surface water bodies should be quantitatively assessed and documented, [17-4.07(1) and 17-3.402(1)(f)].
35. Data in Tables 8 through 11, Attachment VI, suggests that the pH of the surficial aquifer may be lowered below the primary drinking water standard as a result of biochemical reduction of sulfate. The applicant should quantitatively assess this potential impact on the groundwater system including the effect of a pH change on other constituents in the soil and groundwater, [17-4.245(2)(a)].
36. What evidence does the applicant have that native Desulfovibrio bacteria which normally exist under saturated, anaerobic conditions in the soil will survive the strip mining process in which their natural environment is drained and concurrently exposed to air? [17-4.245(2)(a)].
37. The applicant should evaluate how the increased hydrogen sulfide levels will affect the odor parameter of the secondary drinking water standards, [17-4.245(2)(a)].
38. The applicant should explain why soil samples collected for the leaching tests (See Table 4, Attachment VI) were restricted to the depth range of 17 to 41 feet.

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Estech, Inc.

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39. What evidence does the applicant have that the Desulfovibrio bacteria can sustain metabolic and reproductive functions over the full depth of the mine cut? [17-4.07(1)].
40. Has the applicant considered what impact the discharge and attendant changes in groundwater chemistry (e.g. increase H₂S levels) might have on other soil organisms? [17-3.402(1)(a)].
41. What evidence does the applicant have that the organic compounds in the leachate provide a sufficient source of carbon for the sulfate reducing bacteria (SRB)? [17-4.07(1)].
42. What evidence does the applicant have that other nutrients essential for SRB reproduction and maintenance are present in sufficient quantities to sustain the SRB population density and metabolic activity at levels high enough to achieve the sulfate reduction rates measured in the laboratory? [17-4.07(1)].
43. A discrepancy exists on page 10 of Attachment VI regarding the sulfate reduction coefficient. The applicant should clarify whether 0.8 or 1.0 was used for estimation of insitu sulfate reduction, [17-4.245(2)(a)].
44. As part of the impact analysis, please provide areal contours of sulfate concentration around the mine site and indicate the total volume of water in the surficial aquifer affected by the discharge, [17-4.245(2)(a)].
45. On presenting the water balance calculations for the Duette Mine, the available storage (acre feet) for each mining year is presented. What will be the resultant amount of surface runoff lost to the Manatee River as a result of these storage areas? [17-4.245(6)(d)].
46. Figure 3 in Attachment V shows sulfate equivalent to 250 mg/l at the extreme boundary of the zone of discharge (both horizontally and vertically). What happens to this plume (and that of other parameters) in areas where the base of the aquifer is pervious? Also, what documentation exists to demonstrate that sulfate will be attenuated by bacteria at depths approaching the base (i.e. Do bacteria function in a similar manner throughout the groundwater "column" from surface to base?)? [17-4.245(6)(d)].
47. Explain the impacts of reduced pH on groundwater as a result of biological attenuation of sulfate, [17-4.245(6)(d)].

Mr. John Oskam
Estech, Inc.

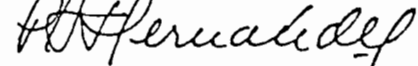
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In addition we are requesting that specific questions on the permit application be answered explicitly. In other words, answers such as "See Attachment IV" are unacceptable. Please at least identify the paragraphs and page numbers of the report answering every specific question.

Once again let me reiterate that the processing of the above referenced application will resume upon receipt of the requested information.

If you have any questions please do not hesitate to call on us.

Sincerely,



Pedro A. Hernandez, P.E.
Industrial Waste Section

PAH/rb

cc: Ronald J. McGregor, Estech
Bill Deane, OGC
Bill Tiffany, MCPC
Dick Eckenrod, Manatee County
Steve R. Boyes, DER



State of Florida
DEPARTMENT OF NATURAL RESOURCES

DR. ELTON J. GISSENDANNER
Executive Director
Maryory Stoneman Douglas Building
3900 Commonwealth Boulevard, Tallahassee, Florida 32303

BOB GRAHAM
Governor
GEORGE FIRESTONE
Secretary of State
JIM SMITH
Attorney General
GERALD A. LEWIS
Comptroller
BILL GUNTER
Treasurer
DOYLE CONNER
Commissioner of Agriculture
RALPH D. TURLINGTON
Commissioner of Education

Please Reply to: BUREAU OF MINE RECLAMATION
903 WEST TENNESSEE STREET
(Corner of Tennessee and Woodward Streets)
TALLAHASSEE, FLORIDA 32304

October 4, 1983

Mr. Thomas W. Reese
Attorney at Law
123 Eight Street North
St. Petersburg, Florida 33701

Dear Mr. Reese:

RE: EST-D-CP

The referenced application for a permit pursuant to Chapter 16C-16, Florida Administrative Code, has been placed on the DNR agenda. The enclosed agenda item will be reviewed by the Cabinet Aides in the Governor's Conference Room, Plaza level of the Capitol, at 9:00 a.m., October 12, 1983. The item will then be considered by the Governor and Cabinet in Room LL03 of the Capitol, at 9:00 a.m., October 18, 1983.

The staff has recommended approval with conditions to the Governor and Cabinet. Anyone objecting to the staff recommendation may exercise any rights they may have pursuant to Section 120.57, Florida Statutes, and unless a petition for a hearing is filed within 21 days of receipt of this notice, the right to such filing shall be waived by any person receiving notice.

A copy of the draft agenda item showing the proposed action concerning this application is enclosed for your information. Please contact Greg Daugherty or me by telephone at (904) 488-8217 should you have any questions concerning our action.

Sincerely,

W. C. Summers, Chief
Bureau of Mine Reclamation

WCS/zkh

Enclosure

CERTIFIED MAIL — P 410 719 435 — Return Receipt Requested

DIVISIONS / ADMINISTRATION BEACHES AND SHORES LAW ENFORCEMENT MARINE RESOURCES
RECREATION AND PARKS RESOURCE MANAGEMENT STATE LANDS

DEPARTMENT OF NATURAL RESOURCES

Division of Resource Management

Cabinet Agenda

Meeting Dates

Bureau	09-23-83
Division	09-28-83
Department	10-04-83
Cabinet Aides	10-12-83
Cabinet	10-18-83

Title: Estech, Inc.'s Conceptual Plan, EST-D-CP, for reclamation at its Duette phosphate mine in Manatee County

Potential Controversial Issues:

1. Non-restoration of pre-mining topography and drainage.
2. Natural revegetation of lake littoral zones.
3. Square lake and wetland designs.

Approval for Agenda:

	Initials/ Date
Project Manager	ZPK / 9/26/83
Subsection Supervisor	GD / 9-28-83
Section Administrator	_____/____
Bureau Chief	_____/9-28-83
Division Director	_____/9/28/83

Consideration of Estech, Inc.'s conceptual plan, EST-D-CP, for reclamation at its Duetta phosphate mine in Manatee County, pursuant to Section 211.32, F.S., and Rule 16C-16.041, F.A.C. The time limit for final agency action on this application is November 28, 1983.

(See Attachment , Pages 1-10)

RECOMMEND APPROVAL WITH THE FOLLOWING CONDITIONS:

GENERAL PERMIT CONDITIONS

1. APPROVAL OF THIS CONCEPTUAL PLAN DOES NOT CONSTITUTE A STATEMENT OR ADMIS CONCERNING THE OWNERSHIP OF ANY INTERESTS IN LANDS REVIEWED.
2. THE NATURAL RESOURCES WITHIN THE UNMINED PORTIONS OF THE PRE-DETERMINED P PLAIN OF ANY RIVER OR STREAM WITHIN THE MINE WHICH ARE NOT MINED BECAUSE ANY PROHIBITION IMPOSED BY LAW, ORDINANCE, OR REGULATION, ADOPTED BY ANY GOVERNMENTAL BODY OR AGENCY ACTING WITHIN THE SCOPE OF THEIR AUTHORITY SH BE PROTECTED FROM ADVERSE IMPACTS RELATED TO MINING OR RECLAMATION ACTIVITY PURSUANT TO SECTION 16C-16.053, F.A.C.
3. IN RESTORING DRAINAGE PATTERNS, THE DEPARTMENT AND THE COMPANY RESERVE TH RIGHT TO REEXAMINE IN EACH ANNUAL APPLICATION THE PLACEMENT AND CONFIGUR OF THE LAKES, STREAMS, AND WETLANDS WHICH HAVE BEEN PROPOSED IN THE CONCEPTUAL PLAN TO ASSURE THAT THE NATURAL FUNCTIONS OF THE LAKES, STREAM AND WETLANDS ARE RESTORED IN ACCORDANCE WITH THE PROVISIONS OF THE THEN EXISTING STANDARDS AND CRITERIA OF CHAPTER 16C-16, F.A.C.
4. AREAS TO BE RECLAIMED AS PASTURE OR IMPROVED PASTURE SHALL INCORPORATE CI OR WINDROWS OF TREES SO THAT EVERY TEN ACRES SHALL HAVE SOME TREES. AREA BE RECLAIMED AS CROPLAND SHALL HAVE WINDROWS OF TREES ALONG MAJOR ACCESS ROADS AND BETWEEN FIELDS.
5. IN ALL WETLAND AND UPLAND FORESTED AREAS, THE OPERATOR SHOULD STRIVE TO ACHIEVE A TREE PLANTING ARRANGEMENT AND MIXTURE OF SPECIES THAT IS RANDOM IF THE USE OF PLANTING EQUIPMENT NECESSITATES THE ESTABLISHMENT OF TREE I THEN THEY SHOULD BE SINUOUS RATHER THAN STRAIGHT.
6. THE GROUND COVER ESTABLISHED IN ALL UPLAND FORESTS SHALL INCLUDE ONE OR I OF THE FOLLOWING; ANNUAL GRASSES, LOW-GROWING LEGUMES, OR WILDLIFE FOOD PLANTS.
7. APPLICANT WILL CONTINUE TO PURSUE METHODS OF REDUCING THE AMOUNT OF CLAY SETTling AREAS THAT ARE REQUIRED IN THE PROCESSING OF PHOSPHATE ROCK.
8. THIS CONCEPTUAL PLAN IS A GENERAL OVER-ALL PLAN WHICH EXPLAINS HOW AND W ALL AFFECTED LANDS IN THE MINE AREA HAVE BEEN OR ARE TO BE RECLAIMED. APPROVAL OF THIS CONCEPTUAL PLAN DOES NOT RELIEVE THE COMPANY OF THE OBLIGATION TO COMPLY WITH THE STANDARDS AND CRITERIA SET FORTH IN CHAPTE 16C-16, F.A.C., AND SPECIFICALLY SECTION 16C-16.051, F.A.C., AND ANY INCONSISTENCIES BETWEEN THIS CONCEPTUAL PLAN AND THOSE STANDARDS AND CRI SHALL BE RESOLVED IN FAVOR OF THE SPECIFIC STANDARDS AND CRITERIA OF 16C-16.051, F.A.C.

Best Available Copy

SPECIAL PERMIT CONDITIONS

1. RECLAMATION OF ALL SAND-CLAY MIX WASTE DISPOSAL AREAS SHALL COMMENCE ONLY WHEN THE CALCULATED CONSOLIDATION IS COMPLETED. REMANENT DIKES SHALL BE GRADED DOWN TO CAP THE SAND-CLAY MIX SURFACE AND TO FLATTEN REMAINING DAM SLOPES. IN ACCORDANCE WITH THIS CONDITION AND GENERAL PERMIT CONDITION NUMBER SEVEN, THE APPLICANT SHALL REVISE THE POST RECLAMATION TOPOGRAPHY TO RESTORE PRE-MINING DRAINAGE SYSTEMS. THIS SHALL NOT PREVENT THE APPLICANT FROM PERFORMING ANY WORK, SUCH AS PLANTING GRASS OR OTHER COVER, TO STABILIZE THE AREA.
2. HERBACEOUS AND WOODED WETLANDS SHALL BE ESTABLISHED USING THE BEST AVAILABLE TECHNOLOGY, PURSUANT TO SECTION 16C-16.051(10)(D), F.A.C. AN ATTEMPT SHALL BE MADE TO ESTABLISH A VARIETY OF INDIGENOUS SPECIES IN BOTH HERBACEOUS AND WOODED WETLANDS. DETAILED INFORMATION FOR WETLAND RESTORATION AND RECLAMATION SHALL BE PROVIDED IN FUTURE ANNUAL APPLICATIONS.
3. THE APPLICANT SHALL REVISE LAKE AND WETLAND DESIGNS TO MORE CLOSELY RESEMBLE NATURAL SYSTEMS AND ELIMINATE SQUARED-OFF CORNERS.
4. REVISIONS REQUIRED BY SPECIAL PERMIT CONDITIONS ONE AND THREE SHALL BE SUBMITTED TO THE BUREAU FOR REVIEW AND APPROVAL WITHIN ONE HUNDRED TWENTY DAYS FOLLOWING THE APPROVAL OF THIS CONCEPTUAL PLAN.
5. PURSUANT TO CHAPTER 16C-16, F.A.C., APPROVAL OF THIS CONCEPTUAL PLAN IS CONTINGENT UPON THE APPLICANT OBTAINING THE NECESSARY WATER QUALITY PERMITS FROM THE DEPARTMENT OF ENVIRONMENTAL REGULATION.

CONCEPTUAL PLAN SUMMARY*

Company: Estech, Inc.

Mine: Duette Mine

Location: Townships 33 and 34 South, Range 22 East in Manatee County

The Duette Mine is a new mine covering approximately 10,524 acres that are subdivided as follows:

Mined/disturbed by mining operations before 7-1-75	0
To be mined/disturbed by mining operations	8,486
To remain undisturbed by mining operations	2,038

Waste clay disposal sites will cover approximately 6,179 acres: 5,509 acres will be used for above-grade, sand-clay mix disposal and 670 acres will be used for below-grade, sand-clay mix disposal. Prior to disposal, waste clay will be thickened with a flocculant and mixed with sand tailings in a 2:1 (by weight) sand-clay ratio. The sand-clay mix will then be pumped to a disposal site where consolidation will return the material to approximate the original grade. All sand-clay mix disposal sites will be constructed on mined land, with the exception of the Initial Settling Area (ISA).

No gypsum waste disposal sites are planned for the Duette Mine.

The Duette Mine is contained within three major drainage basins. The northwest portion of the mine (slightly more than 13 percent of the total area) drains to the northwest into the South Fork of the Little Manatee River. The southeastern corner of the mine, which makes up less than 2 percent of the total mine, drains south to Wingate Creek, which flows into the Myakka River. The remaining 85 percent of the mine drains into the north and east forks of the Manatee River. The North Fork of the Manatee River enters the property from the north, exits, and then re-enters the property north of Keentown, and ultimately re-exits to the southwest, draining about 39 percent of the site. The East Fork Manatee River enters from the east and also exits to the southwest, draining the remaining 46 percent. Approximately 2000 acres will not be disturbed by mining operations which includes the 25-year floodplain of the South Fork Little Manatee River and the north and east forks of the Manatee River. Final land elevations will approximate original elevations; however, the drainage pattern will be significantly modified where the existence of remanent dikes will create 34 small, closed basins.

Final reclamation of the 8,486 acres that are to be mined or disturbed will include 6,184 acres of uplands, 1,249 acres of wetlands, and 1,053 acres of lakes. The conceptual plan includes at least acre-for-acre replacement of herbaceous and wooded wetlands. Approximately 10 percent of the uplands will be reforested with a variety of indigenous hardwoods and conifers. The remaining uplands will be revegetated as citrus groves (less than one percent) and cropland and pastureland (89 percent).

*Note: This summary was prepared by staff from information contained in the application.

Staff Review Comments

The conceptual plan, designated EST-D-CP, was filed with the Department of Natural Resources on January 14, 1982. Additional information and corrections to make the application complete were received on August 30, 1983. The application was reviewed by staff, the Reclamation Advisory Committee, and Manatee County. The review included an inspection of the conceptual plan area on February 17, 1982. Comments were received from Manatee County and the following Reclamation Advisory Committee members: Department of Environmental Regulation, Southwest Florida Water Management District, Tampa Bay Regional Planning Council, and USDA Soil Conservation Service.

Staff review has produced the following comments:

Estech has proposed a waste disposal plan which minimizes the filling time and the height of above-grade disposal sites. The volume of sand-clay mix for each disposal site has been determined so that, after capping and final consolidation, the final ground surface will be at or slightly above pre-mining elevations. However, following the completion of waste disposal operations at each site, Estech proposes to initiate reclamation prior to complete consolidation. Reclamation will consist of grading the dams down to cap the sand-clay mix. Following reclamation, the sand-clay mix will continue to subside below the surface of the remanent dams. The plans for early reclamation will result in a final topography which resembles the topography of unreclaimed settling areas. (See attached "Conceptual Post Mining Topography and Surface Drainage Map.") In addition, the proposed final topography will significantly modify the drainage pattern through the creation of 34 small, closed basins. This aspect of the reclamation plan is not complying with the following rule:

Rule 16C-16.051(7)(b), F.A.C.: "The operator shall restore the original drainage pattern of the area to the greatest extent possible..."

Estech has stated that subsidence due to the consolidation of sand-clay mix should be complete within seven to twelve years after the proposed reclamation period. Because pre-nature reclamation would create a topography which defeats the goal of reclamation, staff believes that it would be better to delay reclamation until consolidation is complete. This issue is addressed by Special Permit Condition Number One.

Estech has stated that the lake littoral zones "are expected to be colonized by emergent marsh vegetation" and where necessary, other techniques will be used "to ensure that a diverse marsh community is established." Natural revegetation does not comply with Rule 16C-16.051(10)(d), F.A.C., which states, "All wetland areas shall be restored and revegetated in accordance with the best available technology..." This issue is addressed by Special Permit Condition Number Two.

Reclamation plans for the Duette Mine include lake and wetland designs which do not resemble natural lakes and wetlands. These designs have square corners where the low areas are adjacent to or contained by waste disposal dams. Staff believes that more natural designs could be achieved. Special Permit Condition Number Three addresses this concern.

Staff is of the opinion that the application, with conditions, meets the standards and criteria contained in Section 211.32, Florida Statutes, and Chapter 16C-16.041, Florida Administrative Code.

Manatee County and the Reclamation Advisory Committee provided the following comments:

<u>Agency</u>	<u>Summary of Comments</u>
USDA Soil Conservation Service	Expressed concern over the loss of rangeland to pastureland, and the negative impact of this change on wildlife habitat.
Tampa Bay Regional Planning Council	Expressed concern over the applicant's plans to naturally revegetate wetlands which are inconsistent with council recommendations.

Manatee
County

(Comments were prepared by Peeples, Earl, Reynolds & Blank)
Manatee County provided a substantial list of comments. The county shares staff's concern regarding:

1. Estech's non-restoration of pre-mining topography and drainage,
2. Estech's plans to allow lake littoral zones to naturally revegetate, and
3. Estech's square lake and wetland designs.

Staff has addressed these concerns with Special Permit Conditions One through Four. Comments other than those addressing the above concerns were considered but disregarded for one of the following reasons:

1. not specifically requested by Rules or Form,
2. not requested during the 30 days of the initial review period,
3. involved detail which is not included in the Conceptual Plan, or
4. the applicant addressed the concern in previous submittals.)

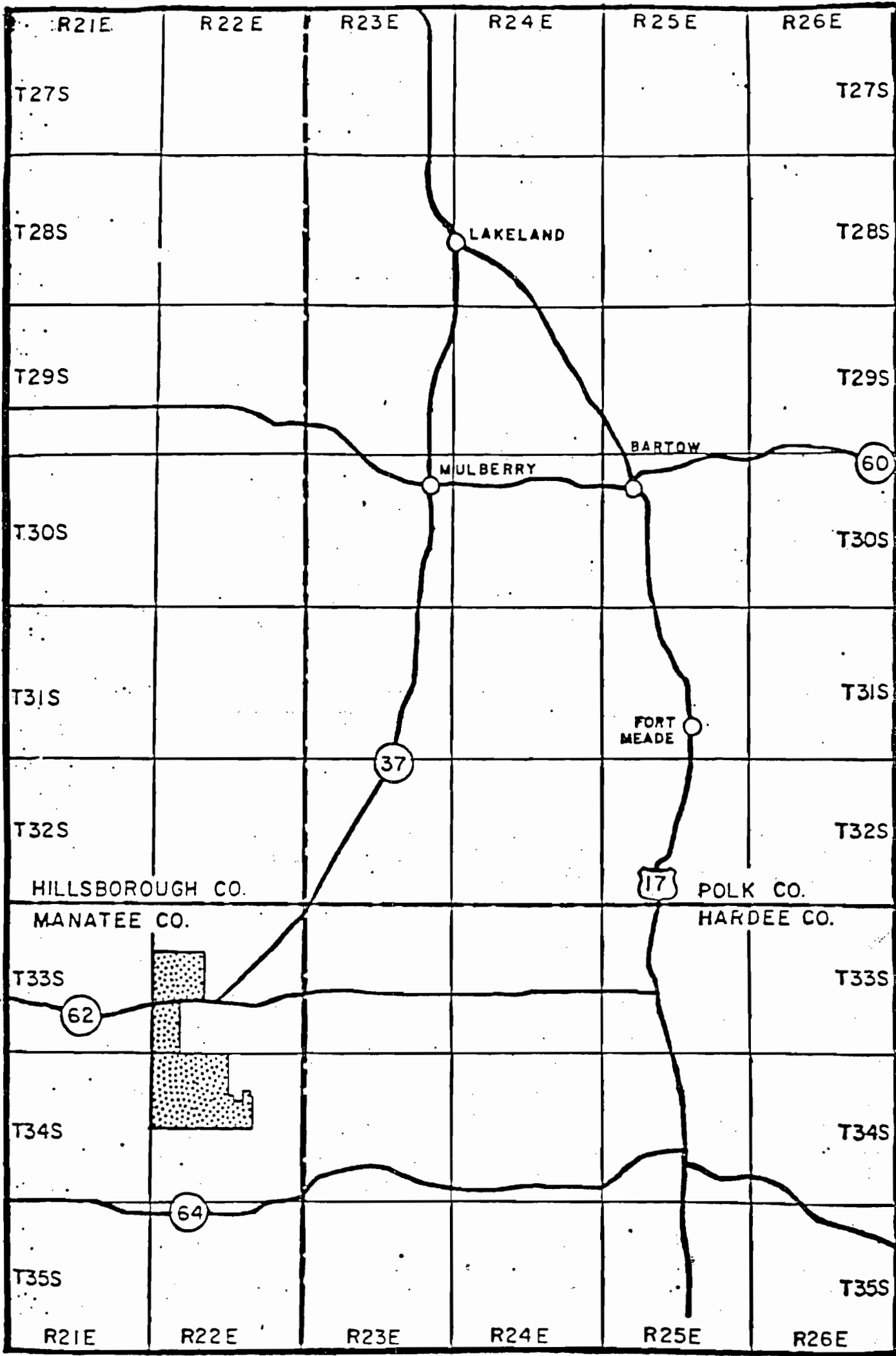
Department of
Environmental
Regulation

"...It is difficult to adjoin deep mine lakes to state waters because these lakes usually do not meet Class III water quality standards. Although Estech is restoring an acceptable quantity of wetland acreage, no attempt is being made to restore stream tributaries to the Manatee River. Biologists at DER have concluded that similar tributaries other places perform valuable ecological functions..."


"1. It has been recognized (Best et al, 1983,) that reliance on natural succession on phosphate mined lands is ineffective if the area of disturbance is large and the seed source is remote. The rules of DNR clearly state that wetlands will be restored with best available technology, this would seem to preclude "natural" succession as a restoration technique.

2. It is of course acceptable to create wetlands in depressions of reclaimed clay settling areas. However, it is unlikely that these wetlands (which are usually dominated by primrose willow and cattail) replace the functions of natural wetlands.

Therefore, the acreages comprised by these wetlands should not count as "1 for 1" wetland acreage replacement. Some credit should be given for this type wetland, but it should depend on the functional quality of the wetland created."



— DESIGNATES COUNTY LINES

 MINE LOCATION

Estech, Inc.
 Duette Mine
 Conceptual Plan, EST-D-CP

ATTACHMENT _____

PAGE 4

Note: This map was prepared by DNR staff.

WASTE DISPOSAL DATA FOR CONCEPTUAL PLAN, EST-D-CP

(Prepared by DNR staff)

SITE CODE	Acreage	Above/Below Grade	Average Dam Height (ft)(1)	Volume Available for Disposal (acre-feet)	Mining		Storage		Method of Disposal (2)	Status (3)	Type of Cap (if any) (4)	Approximate Cap Thickness (ft)	Percent Area Covered by Cap	Height Above Grade After Reclamation (ft)	Height Above Grade After Consolidation (ft)
					Begins (mine life years)	Ends (mine life years)	Begins (mine life years)	Ends (mine life years)							
1SA	480	A	33	15,531	unmined		0	- 21	SC	P-UNAPP	OB	1	100	23	22
AD-1	129	A	33	7,100	0	- 1	1	- 4.5	SC	P-UNAPP	OB	1	100	18	3
AD-2	132	A	27	5,400	1	- 2	1.7	- 5	SC	P-UNAPP	OB	1	100	7	6
AD-3	117	A	27	4,753	2	- 3	2.3	- 5	SC	P-UNAPP	OB	1	100	10	7
AD-4	163	A	27	6,064	3	- 3	3.2	- 4.7	SC	P-UNAPP	OB	1	100	8	7
AD-5	135	A	23	6,768	4	- 4	3.8	- 8	SC	P-UNAPP	OB	1	100	12	5
AD-6	192	A	23	8,650	4	- 5	5	- 9	SC	P-UNAPP	OB	1	100	12	3
AD-7	118	A	18	3,256	6	- 6	5.8	- 8.8	SC	P-UNAPP	OB	1	100	7	5
AD-8	122	A	23	4,896	6	- 7	7	- 10	SC	P-UNAPP	OB	1	100	10	1
AD-9	150	A	30	9,944	7	- 8	8.1	- 14.6	SC	P-UNAPP	OB	1	100	17	0
AD-10	129	A	23	5,512	7	- 9	8.8	- 11	SC	P-UNAPP	OB	1	100	8	0
AD-11	165	A	23	6,762	8	- 10	9.5	- 12	SC	P-UNAPP	OB	1	100	9	0
AD-12	227	A	33	14,706	10	- 11	11.1	- 15	SC	P-UNAPP	OB	1	100	16	0
AD-13	136	A	30	9,130	12	- 13	12.5	- 17	SC	P-UNAPP	OB	1	100	15	2
AD-14	154	A	30	10,836	13	- 14	13.7	- 19	SC	P-UNAPP	OB	1	100	16	0
AD-15 ^a	60	B	0	1,638	14	- 14	14.5	- 17	SC	P-UNAPP	OB	1	100	-5	-19
AD-16	129	A	30	7,392	13	- 15	14.9	- 17.7	SC	P-UNAPP	OB	1	100	15	2
AD-17 ^a	140	B	0	5,459	15	- 17	16.5	- 19	SC	P-UNAPP	OB	1	100	-5	-25
AD-18 ^a	186	B	0	6,644	17	- 18	17.9	- 21	SC	P-UNAPP	OB	1	100	-5	-19
AD-19	234	A	28	15,481	19	- 20	19.6	- 22.5	SC	P-UNAPP	OB	1	100	14	2
BD-1 ^a	169	B	0	2,000	1	- 1	1.8	- 8	SC	P-UNAPP	OB	1	100	-5	-5
BD-2 ^a	115	B	0	1,000	1	- 2	1.8	- 8	SC	P-UNAPP	OB	1	100	-5	-5

Continued on next page.

WASTE DISPOSAL DATA FOR CONCEPTUAL PLAN, EST-D-CP

(Prepared by DNR staff)

SITE CODE	Acreage	Above/ Below Grade	Average Dam Height (ft)(1)	Volume Available for Disposal (acre-feet)	Mining		Storage		Method of Disposal (2)	Status (3)	Type of Cap (if any) (4)	Approximate Cap Thickness (ft)	Percent Area Covered by Cap	Height Above Grade After Reclamation (ft)	Height Above Grade After Consolidation (ft)
					Begins (mine life years)	Ends (mine life years)	Begins (mine life years)	Ends (mine life years)							
BD-3	151	A	27	7,638	2	- 3	2.7	- 6.7	SC	P-UNAPP	OB	1	100	11	6
BD-4	193	A	27	9,256	3	- 4	3.8	- 8	SC	P-UNAPP	OB	1	100	12	7
BD-5	92	A	30	5,916	4	- 5	5	- 10	SC	P-UNAPP	OB	1	100	15	0
BD-6	146	A	30	10,168	5	- 6	6	- 11	SC	P-UNAPP	OB	1	100	16	0
BD-7	152	A	30	10,541	5	- 7	6.9	- 12	SC	P-UNAPP	OB	1	100	16	0
BD-8	139	A	30	8,100	7	- 8	7.9	- 11.9	SC	P-UNAPP	OB	1	100	15	2
BD-9	135	A	30	7,254	8	- 9	9.2	- 11	SC	P-UNAPP	OB	1	100	13	0
BD-10	180	A	30	10,725	9	- 10	10	- 14	SC	P-UNAPP	OB	1	100	16	2
BD-11	182	A	23	6,576	10	- 11	11.3	- 13	SC	P-UNAPP	OB	1	100	7	1
BD-12	79	A	28	4,484	12	- 12	12.3	- 16.8	SC	P-UNAPP	OB	1	100	14	1
BD-13	226	A	28	12,900	13	- 14	13.9	- 19	SC	P-UNAPP	OB	1	100	15	1
BD-14	112	A	28	6,860	12	- 14	14.5	- 17	SC	P-UNAPP	OB	1	100	13	0
BD-15	139	A	23	5,704	15	- 16	15.7	- 19	SC	P-UNAPP	OB	1	100	11	5
BD-16	181	A	23	7,680	16	- 17	16.8	- 2.2	SC	P-UNAPP	OB	1	100	9	2
BD-17	151	A	23	9,150	15	- 17	17.6	- 22	SC	P-UNAPP	OB	1	100	11	0
BD-18	131	A	23	7,620	18	- 18	18.4	- 22.1	SC	P-UNAPP	OB	1	100	10	0
BD-19	168	A	25	8,664	19	- 19	19.3	- 22.5	SC	P-UNAPP	OB	1	100	11	2

Total 6,179

FOOTNOTES:

- (1) Dam Height Range: feet above natural grade.
- (2) Method of Disposal: SC - sand-clay mix.
- (3) Status: U - under construction; P - proposed; APP - covered by an approved reclamation program; UNAPP - not covered by an approved reclamation program.
- (4) Type of Cap: OB - overburden; ST - sand tailings; C - clay; "-" means mixed with; "/" means over.
- * Reclamation of these clay disposal sites will create a reservoir or two lakes.

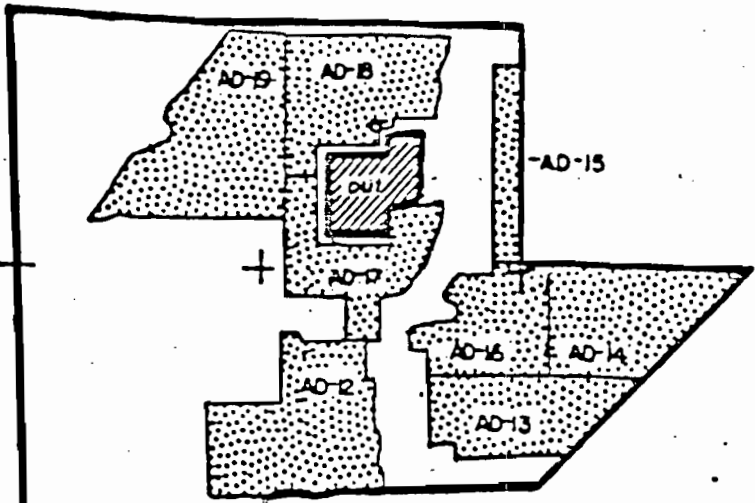
VEGETATION ACREAGES FOR LAND MINED OR DISTURBED

Estech, Inc.

Duette Mine

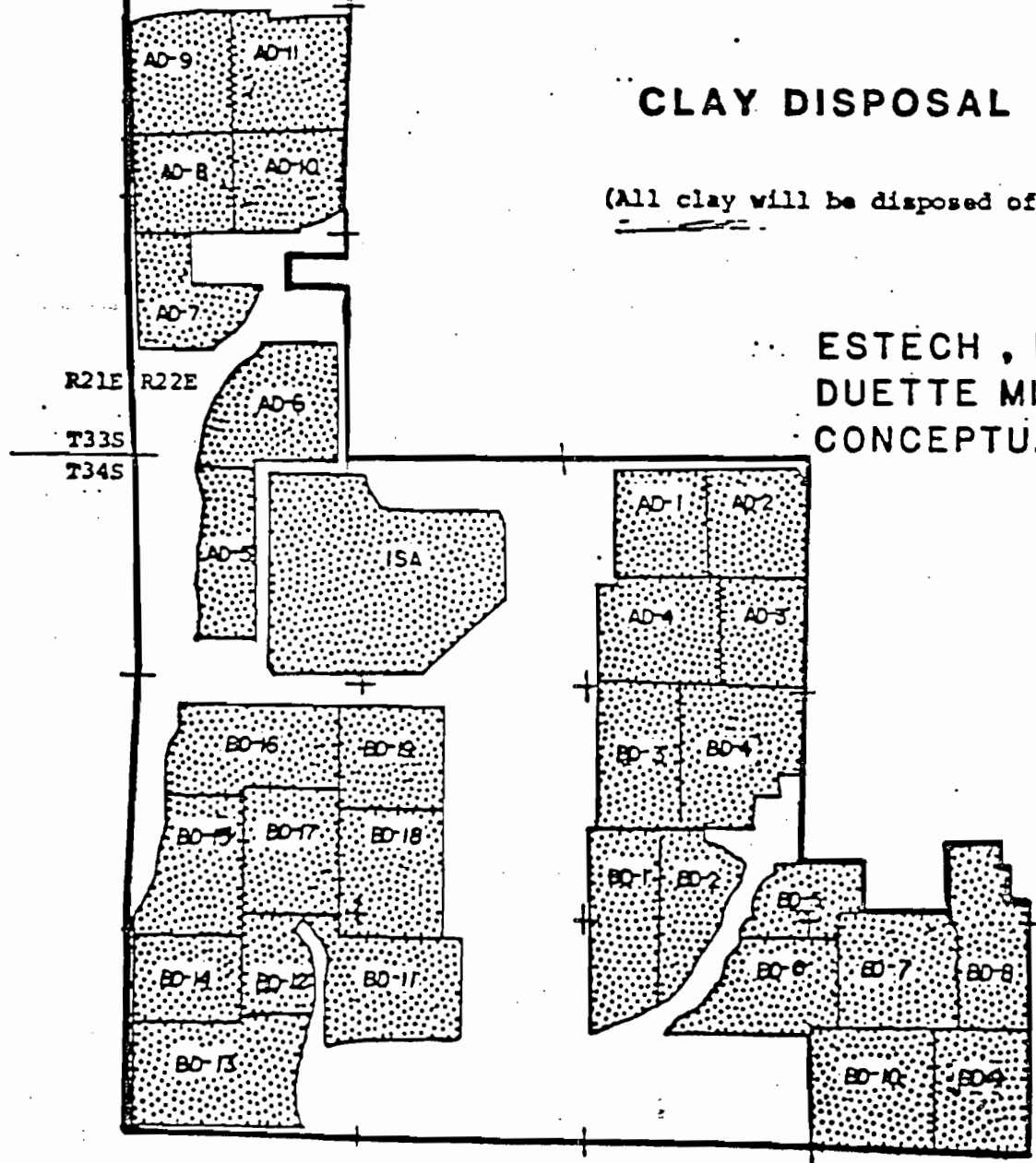
Conceptual Plan

FLUCCS Category	Description	Pre-mining Vegetation		Post-Reclamation Vegetation	
		Acreage	(%)	Acreage	(%)
210	Cropland and Pastureland	1,854	22	5,524	65
230	Citrus Groves	113	1	25	0
330	Mixed Rangeland	5,126	61	17	0
421	Xeric Oak	429	5	0	0
430	Mixed Forest	0	0	618	7
520	Lakes	0	0	1,053	13
620	Wetland - Hardwood Forest	432	5	441	5
640	Wetland - Herbaceous	532	6	808	10
Total		8,486	100	8,486	100



CLAY DISPOSAL MAP

(All clay will be disposed of as sand-clay mix.)



R21E R22E
T33S
T34S

ESTECH, INC.
DUETTE MINE
CONCEPTUAL PLAN

North



THIS MAP WAS PREPARED BY DNR STAFF.

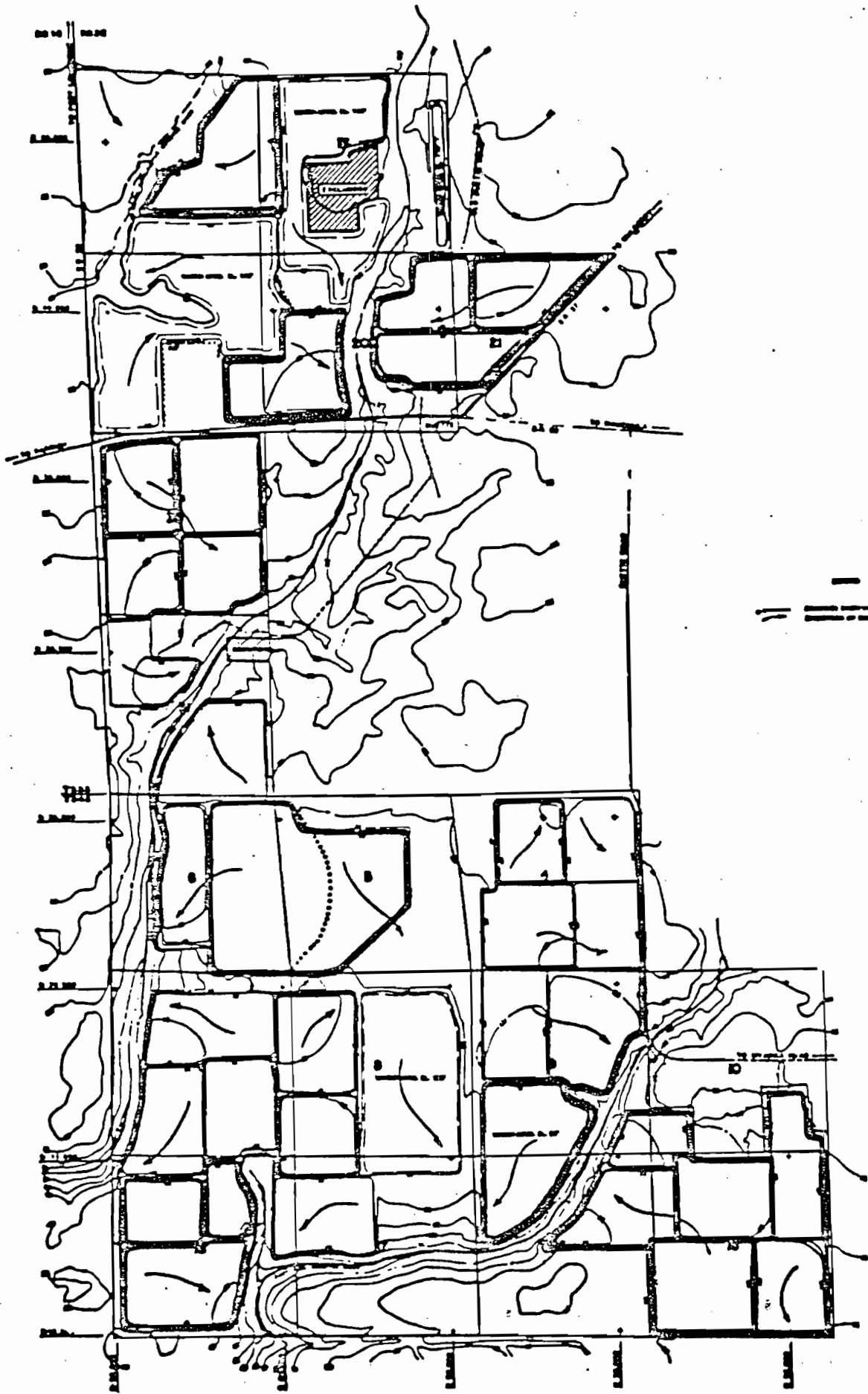
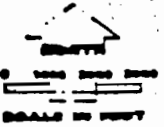


FIGURE 1-8

CONCEPTUAL POST MINING TOPOGRAPHY AND SURFACE DRAINAGE

BLATTE MINE, BOSTON COAL



ENGINEERING AND ARCHITECTURE
CORP.

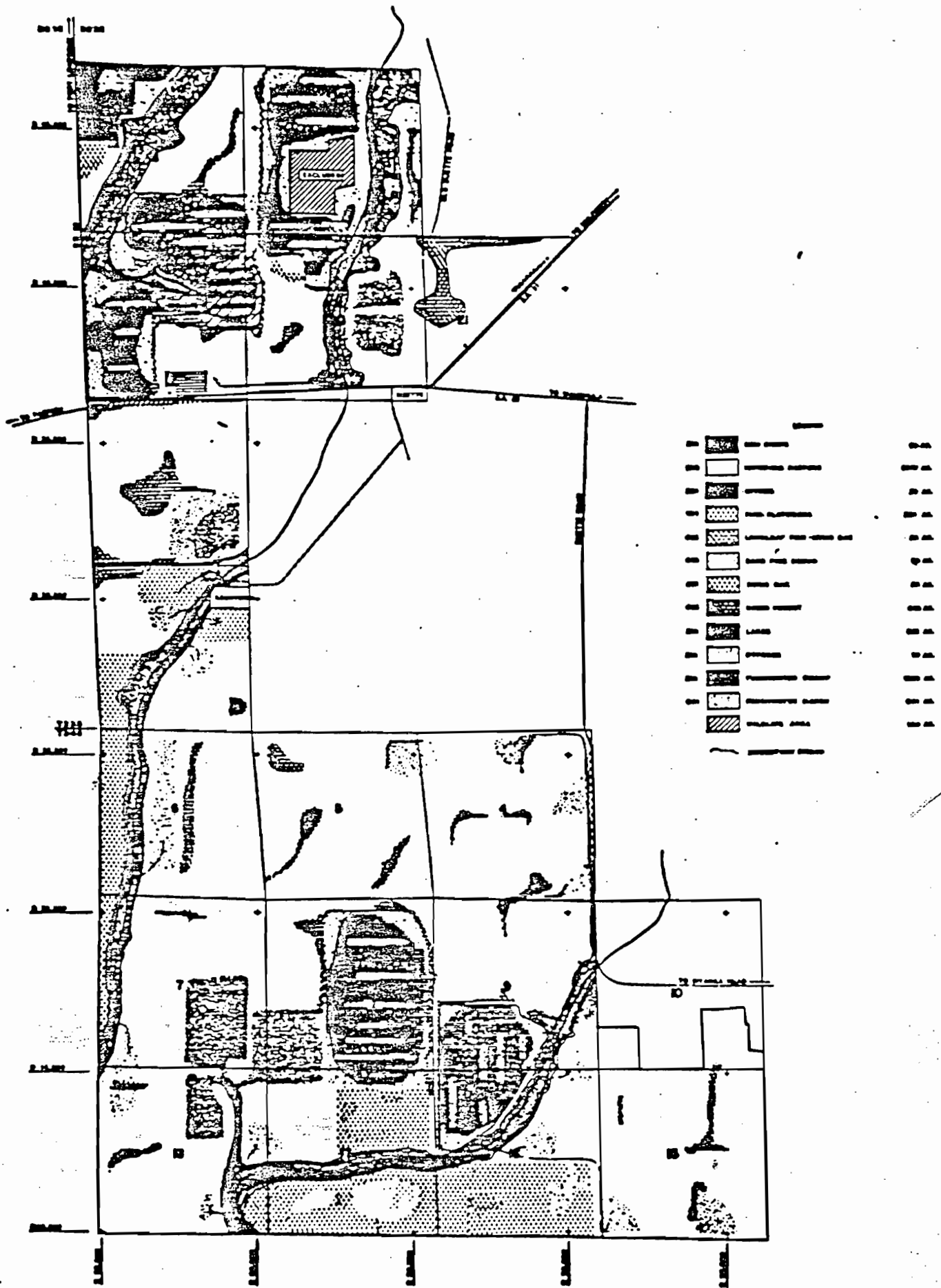
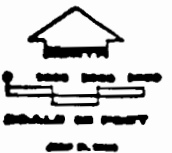


FIGURE 1-1
**CONCEPTUAL POST MINING
LAND USE AND VEGETATION**
BLUETTS MINE, BIRTTON HILL.





State of Florida
DEPARTMENT OF NATURAL RESOURCES

DR. ELTON J. GISSENDANNER
Executive Director
Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard, Tallahassee, Florida 32303

BOB GRAHAM
Governor
GEORGE FIRESTONE
Secretary of State
JIM SMITH
Attorney General
GERALD A. LEWIS
Comptroller
BILL GUNTER
Treasurer
DOYLE CONNER
Commissioner of Agriculture
RALPH D. TURLINGTON
Commissioner of Education

Please Reply to: BUREAU OF MINE RECLAMATION
903 WEST TENNESSEE STREET
(Corner of Tennessee and Woodward Streets)
TALLAHASSEE, FLORIDA 32304

October 6, 1983

Mr. Thomas Reese
Attorney at Law
123 Eight Street North
St. Petersburg, Florida 33701

Dear Mr. Reese:

RE: EST-D-CP

Be advised that the Estech Duette Mine Conceptual Plan agenda item has been revised. Please substitute the enclosed revised page to update your copy of the agenda item.

Sincerely,

Greg Daugherty
Environmental Supervisor
Bureau of Mine Reclamation

GD/rkh

Enclosure

DIVISIONS / ADMINISTRATION BEACHES AND SHORES LAW ENFORCEMENT MARINE RESOURCES
RECREATION AND PARKS RESOURCE MANAGEMENT STATE LANDS

EXHIBIT B

SPECIAL PERMIT CONDITIONS

1. RECLAMATION OF ALL SAND-CLAY MIX WASTE DISPOSAL AREAS SHALL COMMENCE ONLY WHEN THE CALCULATED CONSOLIDATION IS COMPLETED. REMANENT DIKES SHALL BE GRADED DOWN TO CAP THE SAND-CLAY MIX SURFACE AND TO FLATTEN REMAINING DAM SLOPES. IN ACCORDANCE WITH THIS CONDITION, THE APPLICANT SHALL REVISE THE POST RECLAMATION TOPOGRAPHY TO RESTORE PRE-MINING DRAINAGE SYSTEMS. THIS SHALL NOT PREVENT THE APPLICANT FROM PERFORMING ANY WORK, SUCH AS PLANTING GRASS OR OTHER COVER, TO STABILIZE THE AREA.
2. HERBACEOUS AND WOODED WETLANDS SHALL BE ESTABLISHED USING THE BEST AVAILABLE TECHNOLOGY, PURSUANT TO SECTION 16C-16.051(10)(D), P.A.C. AN ATTEMPT SHALL BE MADE TO ESTABLISH A VARIETY OF INDIGENOUS SPECIES IN BOTH HERBACEOUS AND WOODED WETLANDS. DETAILED INFORMATION FOR WETLAND RESTORATION AND RECLAMATION SHALL BE PROVIDED IN FUTURE ANNUAL APPLICATIONS.
3. THE APPLICANT SHALL REVISE LAKE AND WETLAND DESIGNS TO MORE CLOSELY RESEMBLE NATURAL SYSTEMS AND ELIMINATE SQUARED-OFF CORNERS.
4. REVISIONS REQUIRED BY SPECIAL PERMIT CONDITIONS ONE AND THREE SHALL BE SUBMITTED TO THE BUREAU FOR REVIEW AND APPROVAL WITHIN ONE HUNDRED TWENTY DAYS FOLLOWING THE APPROVAL OF THIS CONCEPTUAL PLAN.

STATE OF FLORIDA
DEPARTMENT OF NATURAL RESOURCES

RECEIVED
11-7-83

Manatee County,)
a political subdivision)
of the State of Florida,)
)
Petitioner,)
)
v.)
)
Florida Department of)
Natural Resources and)
Estech, Inc.,)
)
Respondents.)
_____)

Case No. _____

PETITION FOR FORMAL PROCEEDINGS
UNDER SECTION 120.57,
FLORIDA STATUTES

Manatee County, Florida, files this petition for formal proceedings pursuant to sections 120.57(1) and 211.32, Florida Statutes, and chapters 16C-16 and 28-5, Florida Administrative Code, in opposition to proposed agency action by respondent Florida Department of Natural Resources ("DNR"). Respondent DNR proposes to approve a conceptual reclamation plan for Estech Inc.'s proposed phosphate mine in eastern Manatee County, almost all of which lies in the watershed of Lake Manatee, the sole source of drinking water for approximately 250,000 people in Manatee and Sarasota Counties. This petition seeks a formal hearing to determine whether Estech's conceptual reclamation plan satisfies the reclamation and restoration requirements of section 211.32, Florida Statutes, and chapter 16C-16, Florida Administrative Code.

I.

GENERAL ALLEGATIONS

(1) Petitioner, Manatee County, is a political subdivision of the State of Florida responsible for protecting the health, safety, and welfare of the public. Manatee County's post office address is Manatee County Courthouse, Post Office Box 1000, Bradenton, Florida 33506.

(2) The affected agency is respondent DNR, an agency of the State of Florida charged with responsibility over the reclamation and restoration of phosphate mining under section 211.32, Florida Statutes. DNR's address is 3900 Commonwealth Boulevard, Tallahassee, Florida 32303.

(3) Respondent Estech, Inc., is a corporation proposing to mine phosphate in eastern Manatee County, Florida. Estech's address is First Commercial Bank Building, 410 Cortez Road West, Bradenton, Florida 33507.

(4) The DNR identification number assigned to the permit at issue is "EST-D-CP." Representatives of Manatee County first received notice of DNR's recommended approval, which is attached hereto as Exhibit A, by obtaining a copy thereof from Estech on October 14, 1983. The notice of recommended approval is dated October 4, 1983, and states that a petition for a hearing must be filed within twenty-one days of receipt of the notice. DNR issued a revised notice by letter dated October 6, 1983, a copy of which is attached hereto as Exhibit B.

II.

ESTECH'S PROPOSED MINING AND RECLAMATION

(5) This proceeding concerns Estech's proposal to conduct large-scale phosphate mining and reclamation on 10,524 acres of land in eastern Manatee County. Estech proposes to strip mine approximately seventy-million tons of phosphate rock by excavating as much as one hundred feet of earth, thereby removing the natural surficial aquifer in the process. Relying on unproven reclamation methods, Estech plans to replace the surficial aquifer with thirty five to forty immense pits that will be filled with waste clays, sand tailings, and all the pollutants and wastes resulting from the mining and processing of phosphate, including but not limited to: volatile organic compounds; sulfuric acid; organic compounds such as fuel oil, kerosine, and tall oil; solvents; and flocculants.

(6) Estech's proposed reclamation also entails the impoundment of massive quantities of polluted process water, which Estech is prohibited from discharging to surface water by Department of Environmental Regulation permit conditions resulting from Estech's failure to demonstrate in prior section 120.57 proceedings that its process water could satisfy chapter 17-3 standards. Thus, this proceeding will determine the ultimate fate of thousands of acres of the watershed and ground water after Estech, Inc., is through with mining in Manatee County.

(7) Section 211.32(1)(a), Florida Statutes, requires that persons proposing to mine phosphate rock institute and complete a reclamation and restoration program that complies with rules adopted by DNR. The statutory standards prescribed for DNR's rules include:

1. Control of the physical and chemical quality of the water draining from the area of operation;
2. Soil stabilization, including contouring and vegetation;
3. Elimination of health and safety hazards;
4. Conservation and preservation of remaining natural resources; and
5. Time schedule of the completion of the program and the various phases thereof.

(8) Pursuant to section 211.32, Florida Statutes, DNR adopted reclamation and restoration rules in chapter 16C-16, Florida Administrative Code. Rule 16C-16.041, Florida Administrative Code, requires mine operators to file a conceptual plan complying with DNR's reclamation and restoration rules at least six months before commencement of mining operations.

(9) Estech submitted a conceptual reclamation plan to DNR on or about March 28, 1983. After DNR notified Estech by letter dated April 18, 1983, that its application was incomplete, Estech submitted additional information as part of its conceptual plan on August 30, 1983.

(10) Despite the many deficiencies in Estech's reclamation plan that were brought to DNR's attention by Manatee County, other governmental entities, and individuals, DNR staff recommended that the Governor and Cabinet, sitting as the Department of Natural Resources, approve the conceptual plan with conditions. See Exhibit A. After notice of the recommended approval was issued, DNR staff revised its recommendation on October 6, 1983, by deleting one of the recommended conditions.

(11) On October 18, 1983, the Governor and Cabinet adopted the recommendations of its staff and approved Estech's conceptual reclamation plan.

(12) Estech's conceptual reclamation plan and DNR's proposal to approve that plan violate the reclamation and restoration requirements of section 211.32, Florida Statutes, and chapter 16C-16, Florida Administrative Code, and will, among other things, impair the environment and natural resources; threaten the existing and future drinking water supplies of the people of the region; reduce the usefulness of the land; and diminish the wildlife values of the area.

III.

MANATEE COUNTY'S SUBSTANTIAL INTERESTS

(13) As a political subdivision of the State of Florida, Manatee County is responsible for protecting and maintaining the public health, safety, and welfare. This creates in the County a substantial interest in protecting the County's environment and natural resources, including but not limited to public drinking water supplies. Estech's proposed phosphate mining and reclamation -- which involve the creation and deposition of mining wastes exceeding state pollution standards -- will be conducted on more than ten-thousand acres of land in northeastern Manatee County, approximately eighty-five percent of which lies in the watershed of the Lake Manatee Reservoir.

(14) The Lake Manatee Reservoir, which is owned by Manatee County and operated by the Manatee County Utilities Department,

serves as the sole source of drinking water for the urbanized portions of unincorporated Manatee County, the City of Anna Maria, the City of Holmes Beach, the City of Bradenton Beach, the City of Palmetto, the Town of Longboat Key, and certain urbanized portions of the northern unincorporated Sarasota County. The Lake Manatee Reservoir regularly serves as the sole source of drinking water for a resident population of approximately 250,000 people, and also supplements the drinking water supply of the City of Bradenton.

(15) The source of the waters in the Lake Manatee Reservoir, and, therefore, the source of the drinking water supply for the people of Manatee and Sarasota Counties, is the surface and ground water of the Lake Manatee watershed. Furthermore, in addition to contributing to Lake Manatee and its tributaries, the ground water aquifers that will be affected by Estech's mine also serve as existing and future sources of water supply.

(16) Estech's proposed mining and reclamation will have unavoidable large-scale and long-term impacts on the environment, natural resources, and hydrologic features of the watershed of Lake Manatee. Because the Lake Manatee watershed and its surface and ground water are the sole source of drinking water for the above-described people, Manatee County's substantial interests are and will be affected by DNR's approval of Estech's inadequate conceptual reclamation plan.

IV.

DISPUTED ISSUES OF MATERIAL FACT

(17) The disputed issues of material fact herein include, but are not limited to:

(a) Whether Estech demonstrated that all waters of the State on or leaving its property will meet applicable water quality standards of chapter 17-3, Florida Administrative Code.

(b) Whether DNR unlawfully disregarded its rules by failing and refusing to determine whether all waters of the state

on or leaving Estech's property would meet the water quality standards of chapter 17-3, Florida Administrative Code.

(c) Whether Estech demonstrated that water within all wetlands and waterbodies will be of sufficient quality to allow recreation or support fish and other wildlife.

(d) Whether Estech demonstrated that lands reclaimed after mining will be sufficiently stabilized to prevent adverse flooding, drainage, and other impacts.

(e) Whether Estech demonstrated that it can reclaim and restore the mine in accordance with chapter 16C-16 while simultaneously preventing all surface water discharges as required by state permits.

(f) Whether Estech demonstrated that the original surface and ground water drainage patterns will be restored to the greatest extent possible.

(g) Whether Estech demonstrated that natural base flow to tributaries will not be unacceptably impacted by Estech's substitution of the natural surficial aquifer with sand/clay mix.

(h) Whether Estech demonstrated that the land and water remaining after reclamation, including the newly created 1030 acres of lakes, will be hydrologically equivalent to premining conditions.

(i) Whether Estech's reclamation plan will adequately conceal the effects of surface mining.

(j) Whether Estech demonstrated that all waste clays will be disposed of below grade to the greatest extent practical.

(k) Whether Estech's reclamation plans, including but limited to its proposal to replace native rangeland with "improved" pasture, will adversely affect fish and wildlife values and habitat.

(l) Whether Estech demonstrated that it will restore and revegetate wetlands areas in accordance with best available technology.

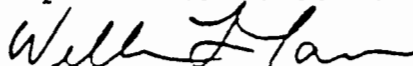
(m) Whether Estech demonstrated that mined areas will be returned to useful purposes.

(n) Whether runoff from reclaimed areas will cause violations of applicable water quality standards.

(o) Whether Estech demonstrated and DNR properly determined that all other applicable statutory and regulatory standards for reclamation and restoration have been fulfilled.

WHEREFORE, Manatee County respectfully requests that a formal Section 120.57(1) proceeding be conducted to formulate the agency action disputed herein, and that a determination be made that the conceptual reclamation plan at issue be denied.

PEEPLS, EARL, REYNOLDS & BLANK
Attorneys for Manatee County
One Biscayne Tower, Suite 3636
Two South Biscayne Boulevard
Miami, Florida 33131
Telephone: (305) 358-3000



William F. Tarr

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that copies of the foregoing have been provided by U.S. Mail this 3rd day of November, 1983, to Thomas W. Reese, Esquire, 123 Eighth Street North, St. Petersburg, Florida 33701; Wade L. Hopping, Esquire, Hopping, Boyd, Green & Sams, P. O. Box 6526, Tallahassee, Florida 32301; Robert L. Rhodes, Esquire, Holland & Knight, P. O. Drawer BW, Lakeland, Florida 33802; and Debra Getzoff, Esquire, 3900 Commonwealth Boulevard, Suite 1003, Douglas Building, Tallahassee, Florida 32303.

PEEPLS, EARL, REYNOLDS
& BLANK, P.A.
Attorneys for Manatee County
One Biscayne Tower, Ste 3636
Two South Biscayne Boulevard
Miami, Florida 33131



William F. Tarr

ROUTING AND TRANSMITTAL SLIP

Date 12/9/83

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. <u>Claire Fency</u>		
2.		
3. <u>1212 Patten - Bill - Willard</u>		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

Attached is the request for a permit extension from Estech, as we discussed today.

They generally only give one. If we agree to grant a 2nd, they cannot get a 3rd; it should be so stated in letter.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post) <u>Roger Pfaff</u>	Room No.—Bldg.
	Phone No.

5041-102

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

LAW OFFICES

HOLLAND & KNIGHT

P. O. Box 1669
406 THIRTEENTH STREET WEST
BRADENTON, FLORIDA 33506
(813) 746-7107

ONE CORPORATE PLAZA
110 EAST BROWARD BLVD.
FORT LAUDERDALE, FLORIDA 33301
(305) 525-1000

P. O. DRAWER B W
92 LAKE WIRE DRIVE
LAKELAND, FLORIDA 33802
(813) 682-1161

P. O. Box 015441
1200 BRICKELL AVENUE
MIAMI, FLORIDA 33101
(305) 374-8500

P. O. Box 3076
1100 SOUTH TAMiami TRAIL
SARASOTA, FLORIDA 33578
(813) 365-3321

P. O. DRAWER B10
BARNETT BANK BLDG.
TALLAHASSEE, FLORIDA 32302
(904) 224-7000

P. O. Box 1288
600 NORTH FLORIDA AVE.
TAMPA, FLORIDA 33601
(813) 223-1621

600 MARYLAND AVENUE, S. W.
WASHINGTON, D. C. 20024
(202) 484-9090

PLEASE REPLY TO: Lakeland, FL
December 6, 1983

P. O. Box 1526
255 SOUTH ORANGE AVENUE
ORLANDO, FLORIDA 32802
(305) 425-6613

CABLE ADDRESS
HND KNIGHT TPA
H&K Mia
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Charles R. Jeter
Regional Administrator
United States Environmental
Protection Agency
Region IV
345 Courtland Street
Atlanta, GA 30365

DER
DEC 12 1983
BAQM

RE: Estech, Inc. -
Prevention of Significant Deterioration
Construction Permit No. PSD-FL-036

Dear Mr. Jeter:

Attached for your appropriate action, pursuant to
40 C.F.R. § 52.21(r)(2), is Estech, Inc.'s "Second Request
for Extension of Time to Commence Construction."

We would appreciate it very much if you would have
the appropriate member of your staff contact me to discuss
this matter. Please note that the current 18-month period
for commencement of construction on the above-referenced
project will expire on February 2, 1984.

Thank you very much for your continuing
cooperation.

Sincerely,

HOLLAND & KNIGHT



Robert L. Rhodes, Jr.

RLRJr/dsl
Attachments

BEFORE THE UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REGION IV

In Re: Estech, Inc. -)
Prevention of Significant)
Deterioration Construction)
Permit PSD-FL-036)
_____)

SECOND REQUEST FOR EXTENSION OF TIME
TO COMMENCE CONSTRUCTION

Estech, Inc., pursuant to 40 C.F.R. § 52.21(r)(2), hereby requests a further extension of time to commence construction and in support thereof states:

Background

1. On February 2, 1981, Estech General Chemicals Corporation received a prevention of significant deterioration construction permit No. PSD-FL-036, dated January 29, 1981 (PSD Permit), authorizing construction of certain facilities at the company's proposed phosphate rock mine and processing plant to be located in Manatee County, Florida (Duette Mine). The PSD Permit (Exhibit A) was issued pursuant to Section 165 of the Clean Air Act and 40 C.F.R. § 52.21. (Estech General Chemicals Corporation subsequently changed its name to Estech, Inc. and will be referred to in this Request as "Estech.").

2. On June 14, 1982, Estech filed a "Request for Extension of Time to Commence Construction" (Initial Request) on the permitted air emission facilities at the Duette Mine. The Initial Request is incorporated herein by reference and a copy (without exhibits) is attached for convenience of review (Exhibit B).

3. By letter dated August 5, 1982 (Exhibit C), the Regional Administrator of the United States Environmental Protection Agency - Region IV (EPA) granted Estech's request for an extension of time to commence construction until February 2, 1984.

4. As a result of further permitting delays discussed in detail below, Estech will not be able to commence construction on permitted air emission facilities at the Duette Mine within the extended time period granted by the Regional Administrator.

Reasons for Request

(a) NPDES/NEPA Requirements

5. For a one-year period beginning in June, 1982, Estech continued to pursue its application for a National Pollutant Discharge Elimination System (NPDES) permit. See Initial Request at paragraphs 3-8. EPA reopened the comment period on the draft NPDES permit on June 3, 1982. A draft Supplement to the Environmental Impact Statement was issued in December, 1982. The comment period on the draft Supplement and the reopened comment period on the draft NPDES permit extended until March 1, 1983.

6. On March 9, 1983, the Florida First District Court of Appeal rendered its decision which upheld the final order of the Secretary of the Department of Environmental Regulation (DER) calling for issuance of certain state permits based upon Estech's revised water management program. Manatee County v. Department of Environmental Regulation, 429 So.2d 360 (Fla. 1st DCA 1983). In addition, Estech completed a design level detailed water balance analysis that confirmed the conceptual water balance upon which the revised water management program was initially based. Because of these developments, Estech requested EPA's advice as to whether an NPDES permit continued to be required for the Duette Mine (Exhibit D).

7. By letter dated June 7, 1983 (Exhibit E), EPA's Regional Administrator advised Estech that, in the absence of a point source discharge of pollutants to waters of the United States, no NPDES permit would be required. The Regional Administrator went on to state: "Information available to the Environmental Protection Agency (EPA) through the EIS documents supports such a conclusion, and

therefore, EPA does not consider this project, on the basis of that information, as one requiring an NPDES permit." Accordingly, by letter dated June 8, 1983 (Exhibit F), Estech withdrew its pending application for an NPDES permit. EPA terminated its NPDES permitting activity (Exhibit G), and published a Notice of Inactivation (Exhibit H).

8. On July 7, 1983, Manatee County filed a Request for Evidentiary Hearing seeking administrative review of the decision to inactivate Estech's NPDES permit application process [Exhibit I (without attachments)]. On July 13, 1983, ManaSota-88, Inc. and Manatee County Save Our Bays Association, Inc. filed a similar request [Exhibit J (without attachment)]. EPA has taken no formal action on these requests to date.

(b) Local Permitting

9. Estech has continued to attempt to comply with applicable local permitting requirements since the time of the Initial Request. See Initial Request at paragraphs 9-25. (The judicial action referred to in paragraph 24 of the Initial Request is pending.)

10. Estech resubmitted its application for an operating permit on August 16, 1982, along with the \$25,000 filing fee [Exhibit K (transmittal letter only)]. Manatee County accepted the application for review, but determined that the application was not complete (Exhibit L). Manatee County requested a great deal of highly-detailed additional information.

11. Estech contends that the additional information requested by Manatee County is well beyond the scope and level of detail required to be included in a complete operating permit application. The company, however, agreed to submit the information. Because the requested level of detail mandates that Estech carry out additional engineering studies and research activities, Estech sought and obtained from Manatee County an extension of time to March 30, 1983,

within which to submit the additional information (Composite Exhibit M).

12. By letter dated March 28, 1983 (Exhibit N), Estech transmitted the additional information previously requested by Manatee County. Manatee County responded by letter dated April 13, 1983 (Exhibit O), stating that the application for an operating permit continued to be incomplete. The County asserted that all necessary permits from federal and state agencies must be included as a part of a complete operating permit application and pointed out that Estech had not submitted an NPDES permit, a DER ground water permit, or an approved conceptual reclamation plan from the State of Florida Department of Natural Resources (DNR). The County also requested additional technical information.

13. By letter dated April 27, 1983 (Exhibit P), Estech disputed Manatee County's interpretation of its ordinance concerning the necessity of filing all other required permits as a prerequisite to county processing of the operating permit application.

14. By letter dated August 30, 1983 (Exhibit Q), Estech submitted additional technical information to Manatee County and requested that the permit application be processed and approved. Estech asserted that approval could be expressly conditioned upon subsequent receipt of any other necessary agency permits.

15. By letter dated September 23, 1983 (Exhibit R), Manatee County again found the application to be incomplete and again requested highly detailed additional technical information. Furthermore, the county rejected Estech's request that the application be processed to approval subject to obtaining necessary additional permits.

(c) DER Ground Water Permit

16. In the March 9, 1983, decision referred to in paragraph 6 above, the Florida First District Court of Appeal expressly held that Estech must obtain a DER ground water

discharge permit prior to commencement of construction at the Duette Mine. 429 So.2d at 363-64. Estech filed an application for a ground water permit on March 29, 1983 [Exhibit S (transmittal letter only)].

17. The permit application was reviewed by DER and by representatives of the Manatee County pollution control program. By letters dated May 13, 1983 (Exhibit T) and July 6, 1983 (Exhibit U), the application was determined to be incomplete. Extremely detailed additional information was requested. In order to respond to these extraordinary requests for additional information, Estech had to carry out additional engineering studies and technical analyses. Estech expects to submit the requested additional information to DER during the month of December, 1983.

(d) DNR Conceptual Reclamation Plan

18. Under Florida law, lands disturbed by the severance of certain minerals (including phosphate rock) must be reclaimed in accordance with a reclamation and restoration program consistent with rules adopted by DNR. See Section 211.32(1)(a), Florida Statutes. The DNR regulations designed to implement this statutory requirement are set forth in Chapter 16C-16, Fla. Admin. Code. For proposed mines such as the Duette Mine, the operator is required to file a proposed conceptual reclamation plan for approval by the Florida Governor and Cabinet sitting as the head of DNR.

19. Estech filed its proposed conceptual reclamation plan with DNR on January 14, 1982. A series of requests for additional information by DNR staff and responsive submittals by Estech then ensued. DNR staff determined that the proposed conceptual plan was complete as of August 30, 1983. Upon completion of its review, DNR staff recommended to the Governor and Cabinet that the proposed plan be approved with conditions (Exhibit V).

20. On October 18, 1983, the Governor and Cabinet approved Estech's conceptual reclamation plan in accordance with DNR staff recommendations.

21. On November 3, 1983, Manatee County filed a "Petition for Formal Proceedings Under Section 120.57, Florida Statutes" for the purposes of challenging the DNR action approving the Estech conceptual reclamation plan [Exhibit W (without attachments)]. Discovery is under way in this administrative proceeding. A hearing date has not yet been set, but the earliest likely date would be in late January, 1984.

Summary

22. The facts set forth in this Request demonstrate that Estech and Manatee County continue to be in dispute as to the applicable local operating permit and zoning requirements. Although Manatee County has agreed to accept Estech's operating permit application for review, it continues to refuse to find the application complete for final processing and action by the Board of County Commissioners. Manatee County continues to request highly-detailed refined additional technical information despite the fact that Estech has provided information at a level of detail far beyond that arguably required by either the Zoning Ordinance or the Mining Ordinance. In addition, Manatee County refuses to consider Estech's operating permit application to be complete in the absence of the submittal of an EPA NPDES permit, a DER ground water permit, and a DNR final conceptual plan approval. It is impossible at this time to determine when Manatee County will determine that the operating permit is complete. A completeness determination would trigger a 90-day period within which the Manatee County Commission must grant or deny the operating permit. It is clear, however, that this action will not take place prior to February 2, 1984.

23. As noted above, Manatee County takes the position that Estech must submit an NPDES permit for the Duette Mine in order for its county operating permit application to be considered complete. This is so even though EPA has formally determined that no NPDES permit is required for the

Duette Mine project. Manatee County is actively challenging this EPA determination. It is unclear at this time when an EPA ruling on the Manatee County evidentiary hearing request will be issued. If the request is denied and Manatee County seeks further administrative and judicial review of this decision, complete resolution of this issue will not occur until well beyond February 2, 1984. Apparently Manatee County will continue to take the position that Estech must submit an NPDES permit as part of the operating permit application until such time as the County is convinced that no such permit is required.

24. With regard to the DNR conceptual plan, Manatee County is actively opposing the Governor and Cabinet approval action. The earliest likely hearing date would be in late January, 1984. After the hearing, the hearing officer will require time to develop and issue a recommended order. Then, the matter will have to be referred back to the Governor and Cabinet for reconsideration and final action. Assuming that Manatee County is unsuccessful in the administrative process, it is reasonable to assume that it will seek judicial review in the Florida First District Court of Appeal. Under these circumstances, a final order approving the conceptual reclamation plan may not be effective until some time in 1985. (It should be noted that DNR conceptual plan approval is not in itself a preconstruction requirement under Chapter 211, Florida Statutes. It is only Manatee County's insistence that an approved plan be submitted before the operating permit application can be considered complete that effectively turns the reclamation plan approval requirement into a "construction permit.")

25. Estech promptly filed its DER ground water discharge permit application following the judicial determination that this permit was a preconstruction requirement. DER and the Manatee County local pollution control program requested such extensive additional information that highly detailed further studies were required. Even if Estech's


expected December, 1983, submittal of additional information is deemed to render its application complete, this will simply trigger a 90-day review period within which DER is required to propose to issue or deny the permit. See Fla. Stat. § 120.60. If DER proposes to issue the permit, it is reasonable to assume that Manatee County or other third parties will exercise administrative and judicial remedies. Accordingly, no DER ground water discharge permit will be issued prior to February 2, 1984.

26. Estech has continued to exercise due diligence and good faith efforts in its attempts to obtain all necessary preconstruction permits and approvals for the air emission facilities that are the subject of the PSD permit. Despite these efforts, it will be impossible for Estech to commence construction on the facilities by February 2, 1984.

Request for Relief

WHEREFORE, Estech requests EPA to grant an extension of the time within which it must commence construction on the air emission facilities subject to PSD Permit No. PSD FL-036 until August 2, 1985.

Respectfully submitted,


Robert L. Rhodes, Jr., of
HOLLAND & KNIGHT
Post Office Drawer BW
Lakeland, FL 33802
813/682-1161

Attorneys for Estech, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the foregoing document was sent by United States Mail, certified return receipt requested, postage prepaid to Mr. Charles R. Jeter, Regional Administrator, United States Environmental Protection Agency, Region IV, 345 Courtland Street, Atlanta, Georgia 30365 this 6th day of December, 1983.


Robert L. Rhodes, Jr.

Estech-120183:25



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30308

*files
3668-air permit*

JAN 29 1981

REF: 4AH-AP

Mr. Joseph E. Davis
Manager of Products
Estech General Chemicals Corporation
First Commercial Bank Building
DeSoto Square
410 Cortez Road West
Bradenton, Florida 33507

RE: PSD-FL-036

Dear Mr. Davis:

Review of your January 22, 1980 application (PSD-FL-036) to construct a phosphate rock mine and processing plant near Duette, Florida has been completed. The construction is subject to rules for the Prevention of Significant Air Quality Deterioration (PSD), contained in 40 CFR 52.21.

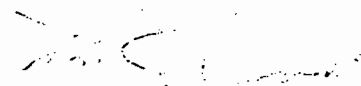
We have determined that the construction, as described in the application, meets all applicable requirements of the PSD regulations, subject to the conditions in the conclusions section to the Final Determination (enclosed). EPA has performed the Preliminary Determination concerning the proposed construction, and published a request for public comment on September 17, 1980. One comment was received. A copy of this comment along with our response is enclosed. No substantive changes were made to the Preliminary Determination.

Authority to Construct a Stationary Source is hereby issued for the facility described above, subject to the conditions in the conclusions section of the enclosed Final Determination. This Authority to Construct is based solely on the requirements of 40 CFR 52.21, the Federal regulations governing significant deterioration of air quality. It does not apply to NPDES or other permits issued by this agency or permits issued by other agencies. Information regarding EPA permitting requirements can be provided if you contact Mr. Joe Franzmathes, Director, Office of Program Integration and Operations, at (404) 881-3476. Additionally, construction covered by this Authority to Construct must be initiated within 18 months from the receipt of this letter.

Please be advised that a violation of any condition issued as part of this approval, as well as any construction which proceeds in material variance with information submitted in your application will be subject to enforcement action.

Authority to Construct will take effect on the date of this letter. The complete analysis which justifies this approval has been fully documented for future reference, if necessary. Any questions concerning this approval may be directed to Mr. Kent Williams, Chief, New Source Review Section (404/881-4552).

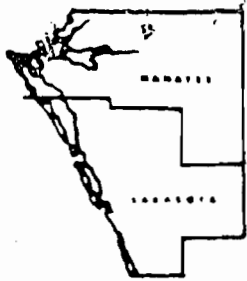
Sincerely yours,



Thomas W. Devine
Director
Air and Hazardous Materials Division

Enclosure

cc: S. Smallwood
Florida Department of Environmental Regulation



MANASOTA - 88

A Project for Environmental Quality 1968 - 1988

September 27, 1980

Mr. Tommie A. Gibbs, Chief
Air Facilities Branch
U.S. EPA, Region IV
345 Courtland St., NE
Atlanta, Georgia 30308.

Re: Estech Public Notice
(PSD- Fl-036)

Dear Mr. Gibbs:

The determination to permit Estech to construct 2 phosphate rock dryers at the Estech mine site appears to be based on inaccurate information re: available technology, energy considerations, cost of control equipment and resource depletion. NEPA requirements do not appear to have been met. EPA policy re: radionuclide assessment appears not to have been met.

Technology has been developed within the last few years whereby wet rock can be acidulated with undiluted commercial grade sulfuric acid. This process has proven to be economical, efficient and results in a significant decrease in atmospheric emissions of particulates and radionuclides. (1)

(A typical rock dryer meeting EPA and State air standards emits 60,000 kg (66 tons) of particulates annually, which includes 27×10^8 pCi of radium 226, 27×10^8 pCi of thorium 230, and 50×10^8 pCi of uranium. Emissions of radionuclides exceed those allowed by NRC for a 1000 megawatt nuclear power plant by greater than ten-fold. In addition to stack emissions from the dryer, emissions from transfer and transportation of the dried rock from the dryer to the chemical plant are equal to or greater than those from the dryer stack. (2)

No information was provided re: areawide exposure to emissions of radionuclides and no information provided re: exposure of residents along the prescribed route chosen to transport dried rock to emissions of radionuclides.

No guidance on allowable radionuclide emissions and exposure levels to be considered in site-specific studies where the dryer exception is applied appears to have been provided by the EPA Office of Radiation Programs as was agreed to. (3)

Additionally, no consideration appears to have been given to the fact that air pollution control devices proposed by Estech will not control the emissions of radionuclides from the proposed rock dryers. The EPA states in the Dec. 27, 1979 Federal Register that air cleaning equipment does not remove radionuclides at these sites, that radionuclides are still released into the atmosphere and are dispersed into populated areas.

Best Available Copy

While emission standards for hazardous air pollutants are still being promulgated, radionuclides from phosphate mining operations, including rock dryers, are listed by EPA as hazardous air pollutants causing cancer, genetic damage and other life shortening effects.

Based on the latter, it can be seen that the objective of the areawide EIS to protect air quality will not be attained through the use of rock dryers by Estech.

Use of phosphate rock dryers, including emission limitations, is not the BACT. "After emission limitations for phosphate rock dryers were established, technology developed which allows elimination of the drying process for rock chemically processed in Central Florida." (4) (Three chemical plants in Central Florida have converted to wet rock acidulation on a full scale basis. Two others are in planning or design stages of conversion. The trend indicates that all chemical plants in Central Florida will convert to wet rock processing within the next few years.) (5) No adequate proof has been presented to justify Estech being permitted the use of dryers.

We believe in order to justify the use of the dryers, regulations require a cost/benefit report be prepared by EPA which would show the dollar value assigned to human lives in Manatee County and along the transportation route that, based on EPA projections, will be lost to cancer as opposed to the financial benefits to the company as a result of using the dryers.

While we cannot believe that anyone should weigh the costs of saving a human life as opposed to the regulation costs to the industry and think it has been amply demonstrated that it was not the intent of the Congress or the Courts to give EPA the right to decide what somebody's life is worth; since this appears to be a function Region IV has assumed, the public deserves to see the methods you use to make such a determination.

When the exception to permit Estech rock dryers was made, no consideration was given to the irreversible and irretrievable commitment of national resources as required by NEPA. Trying to justify these dryers based on world-wide energy impacts or resource depletion is not the purpose of NEPA requirements.

In summary, it appears no information was provided re: areawide and individual exposure to radionuclide emissions, no guidance on allowable radionuclide and exposure levels to be considered in site-specific studies was provided by the EPA Office of Radiatic Programs, no consideration appears to have been given to the fact that air pollution control devices will not control the emissions of radionuclides from rock dryers, rock dryers are not considered BACT and their use has not been justified and NEPA requirements appear not to have been met.

Until these deficiencies are corrected, we request this permit not be issued.

Sincerely,

Reply: 5314 Bay State Rd.
Palmetto, Fl 33561

(1) (2) (3) (4) (5) See 4-66 & 67, Volume III, Final Areawide E

RESPONSE TO PUBLIC COMMENTS

ESTECH GENERAL CHEMICALS

(PSD-FL-036)

One comment was received on the proposed phosphate mine and processing plant (copy attached). The comment concerned radionuclide emissions from the proposed source.

Radionuclide emissions are not regulated under the Clean Air Act. The Authority to Construct under Federal Prevention of Significant Deterioration (PSD) regulations (40 CFR §52.21) apply only to pollutants regulated under the Act. Until promulgation of a NESHAPS or other final rulemaking, radionuclides will not be a regulated pollutant and therefore not subject to review under Federal PSD regulations.

A site specific evaluation of radionuclides has been performed in developing the Environmental Impact Statement (EIS) for the proposed source in compliance with NPDES permitting requirements. The analysis and conclusions drawn are presented in the EIS and supporting documents on air quality and radiation.

Another expressed concern is that rock dryers are being used when wet rock technology exists for producing phosphoric acid which emits less pollutants. The Estech mine and processing plant sells rock products (both wet and dry) to other companies for phosphoric acid production. Prohibiting the use of rock dryers would substantially affect products produced by the source through elimination of a major product line. Drastic manipulation of the products and thus the purpose of an industrial complex such as would be accomplished through a prohibition of rock drying at this source is beyond the authority embodied in the BACT requirements of PSD regulations.

Information concerning this project (PSD review and EIS) has been and remains available to the public (contact Mr. Joe Franzmathes, Director, Office of Program Integration and Operations, EPA Region IV, 345 Courtland Street, NE, Atlanta, Georgia 30365)

APPLICATION PSD-FL-036

FINAL DETERMINATION

I. Applicant

Estech General Chemicals Corporation
410 Cortez Road West
Bradenton, Florida 33507

II. Location

The applicant proposes to construct rock mining facilities in the town of Duette in Manatee County, Florida. Duette is located approximately 19 miles east of the town of Parrish, off highway 62. The various facilities will be located at the following UTM coordinates: Boiler 389.18E and 3047.63N; Rock Dryers 388.95E and 3047.28N; Silos 388.72E and 3047.32N; and product Loading Stations 388.73E and 3047.18N.

III. Project Description

The proposed source is a phosphate rock mine and associated processing plant. Air pollution emitting facilities at this source include the following:

- Boiler (3.99 MMBTU/hr)
- Two fluid bed dryers (290 tons material input/hr each)
- Eight dry rock storage silos (3750 ton storage capacity)
- Two dry rock loading stations (200 ton bin capacity)

The applicant proposes to use a fuel oil fired 100 horsepower package boiler to generate steam for heating purposes. Heat is required to maintain flotation reagents at proper temperatures for process use and to preheat No. 6 fuel oil so that it can be pumped to the two phosphate dryer oil burners. The boiler will be fired with low sulfur distillate fuel having a nitrogen content of 0.4 percent and a sulfur content of 0.7 percent.

The two fluidized bed dryers will dry phosphate rock from about 13 to 2 percent moisture. (The dryers remove moisture by passing heated air through the fluidized bed of rock). The air is heated by combustion of fuel oil in the air stream directly before entering the fluidized bed. Large size, heavy components of product exit the fluidized bed dryer to a product conveyor and the lighter components are carried along with the fluidizing air to product recovery cyclones which remove economically

TABLE 1. EMISSIONS SUMMARY

Facilities	Fugitive PM	TONS PER YEAR		CO	HC	NO _x	Fluoride
		PM	SO ₂				
Package Boiler	---	0.25 ^a	12.4 ^a	0.62 ^b	0.12 ^b	2.73 ^c	---
Phosphate Rock Dryers (2)	---	85.4 ^c	32.0 ^c	28.8 ^d	5.76 ^d	264 ^e	0.15 ^c
Dry Rock Storage	---	38.8 ^e	---	---	---	---	---
Dry Rock Loading Station	---	25.3 ^e	---	---	---	---	---
Mining and Reclamation	43.1 ^c	---	---	---	---	---	---
Wet Phosphate Rock Storage Pile	47.5 ^c	---	---	---	---	---	---
TOTAL	90.6	149.25	44.4	29.42	5.88	266.3	0.15
PSD Significant Emissions Rates ^f		25	40	100	100	40	3

- a. Calculated by applicant in the FDER construction permit application section of the PSD application.
- b. Calculated by using emission factors given in Table 1.3-1 of AP-42.
- c. Calculated by applicant in the BACT application section of the PSD application.
- d. Listed by applicant in Air Quality Resource Document section of the PSD application.
- e. Based on allowable emission limit and maximum allowable yearly hours of operation
- f. As defined in 40 CFR 52.21 (b)(23).

recoverable product from the gas stream. Product recovered by the cyclones is also discharged to the product conveyor. The remaining hot gas is cleaned in a wet scrubber and vented to the atmosphere.

The eight Dry Rock Storage Silos are designed to hold production output for relatively short periods of time and supply product to the Dry Rock Loading Stations on demand. The input rate is consistent with production of the two phosphate rock dryers and the output rate designed for optimum and effective shipment of product. Fugitive emissions generated during product transfer and silo loading are captured by hoods and collected in a silo loading scrubber.

The two dry rock loading stations are each designed with a compartmented 100 ton loading bin. Each bin is designed to discharge through eight spouts into the hatches of a 100 ton railroad hopper car. The bin loading collection systems exhaust into a single wet scrubber serving both loading bins. The rail car loading spouts are designed to enclose the car hatch openings and include necessary air inflow and dust capture features to prevent fugitive dust release during the car loading operations. A single wet scrubber is designed to serve both car loading dust collection systems on an alternating basis.

IV. Source Impact Analysis

The proposed construction has the potential to emit greater than 100 tons per year of particulate matter (PM) and nitrogen oxides (NO_x) as shown in Table 1. Therefore, in accordance with the provisions of Federal Regulation 40 CFR 52.21 promulgated 7 August 1980, the construction is a new major stationary source subject to Prevention of Significant Deterioration (PSD) review.

Full PSD Review includes an analysis of the following:

- A. Best Available Control Technology (BACT),
- B. Increment impacts,
- C. National Ambient Air Quality Standards (NAAQS) impacts,
- D. Growth impacts,
- E. Visibility, Soils, and vegetation impacts,
- F. Class I area impacts.

The PSD regulations require an analysis of these pollutants for each pollutant with a significant emissions rate as defined in 40 CFR 52.21 (b)(23). Emission rates of PM, sulfur dioxide (SO₂) and NO_x exceed the significance level. Full PSD review applies to these pollutants except for certain specific exemptions outlined in the following sections applicable to complete applications submitted prior to August 7, 1980, the promulgation date of the revised regulations. These exemptions are identified in the appropriate analysis summary sections.

A. BACT Analysis

BACT analysis is required for emissions of PM and NO_x. SO₂ is exempt from BACT requirements consistent with the provisions of 40 CFR 52.21 (i)(9), which exempts applications submitted before August 7, 1980 from the more restrictive BACT requirements of the 1980 PSD regulations. Because SO₂ emissions are less than 50 tons per year they do not meet the 1978 PSD regulation BACT criteria and therefore, are exempt from PSD review.

PM

Particulate matter emissions are capable of being generated from all of the facilities proposed for construction (refer to Table 1). These facilities are required to apply best available control technology for PM consistent with 40 CFR 52.21 (J).

The applicant proposes to utilize two Ducon wet venturi-absorber scrubbing systems to collect particulate and gaseous pollutants from the phosphate rock dryers. Particulate emissions from transfer points are proposed to be enclosed and eventually vented to a dust collection system. The captured PM emissions from the dryers will be exhausted to a Centrifield wet scrubber.

The design outlet rate for the Ducon scrubbing system as indicated by the supplier is 0.022 gr/DSCF. Based on an estimated inlet concentration of 12.0 gr/DSCF this is equivalent to a collection efficiency of 99.82 percent for the system. The design outlet rate for the Centrifield scrubber is listed as 0.022 gr/DSCF by the manufacturer of the control device. Based on an estimated inlet grain loading of 7.8 gr/DSCF this is equivalent to a col-

lection efficiency of 99.71 percent for the Centrifield scrubber. The total particulate emission from the phosphate rock dryers using the aforementioned emission rates is estimated to be 22.93 lb/hr or 85.4 tons/yr (refer to Table 1). This emission rate compares favorably with the 0.04 lb PM per ton of material proposed New Source Performance Standard for phosphate rock dryers. Using the above emission rate, particulate emissions from the proposed phosphate rock dryers for 590.3 tons/hr of material processed (wet basis) are 23.61 lbs/hr.

Also proposed for construction is a dry rock storage facility consisting of eight storage silos with a storage capacity of 3,750 tons. The silos will be arranged in two bays of four silos each centered over two enclosed reclaim belt conveyors which load the rail car transfer stations. An enclosed dry product conveyor of 600 tons per hour capacity (from the rock dryers) will deliver dry rock to a distribution chute and discharge to an enclosed reversible conveyor belt. The reversible belt will supply either one of two tripper conveyors which traverse the length of each bank of silos. All transfer points in the loading system that lead to the tripper conveyors are proposed to be enclosed and ventilated with exhaust hoods to prevent PM emissions. Silo discharge gates to the reclaim conveyors will also be enclosed with fugitive PM collection hoods to prevent escape of particulate matter at the base of the silos. All active transfer points will be enclosed and ducted to scrubbers. A schematic of the silo storage and reclaim fugitive dust control system is given in Figure 1. The outlet grain loading for the Centrifield scrubbers as listed by the manufacturer is 0.022 gr/DSCF. The collection efficiency of the Centrifield scrubbers is estimated to be greater than 99.7 percent. This is comparable to the collection efficiencies for other control devices such as fabric filters and centripetal vortex contact scrubbers.

The two dry rock loading stations at Duette Mine are proposed to be installed with wet Centrifield scrubbers. Each dry rock

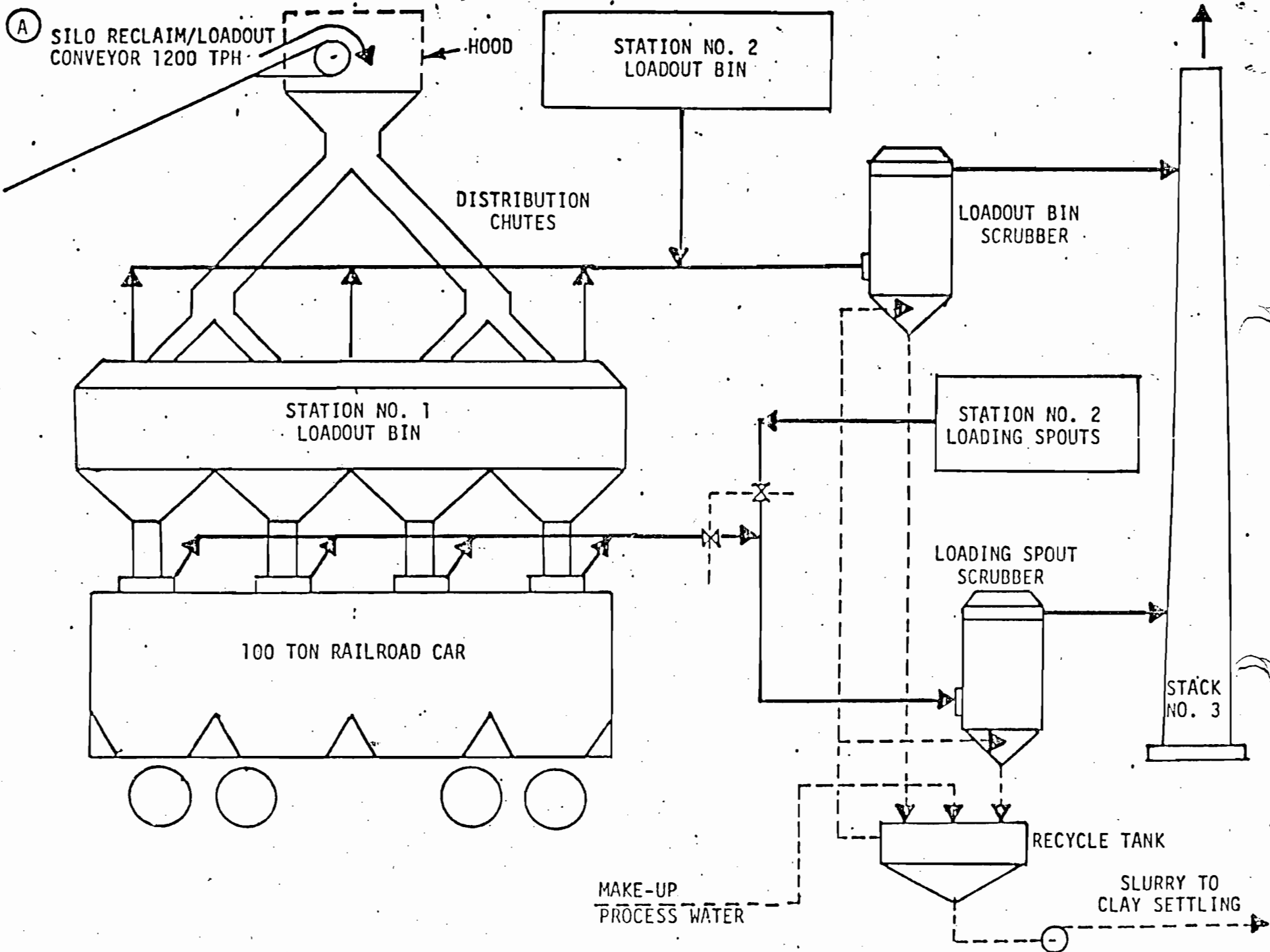


Figure 2. Dry rock loading fugitive dust control system.

reduce emissions from these areas to levels approximating preconstruction conditions.

The storage piles at Duette Mine will be loaded with a movable double wing stacker. The material loaded to the pile will essentially be saturated with excess moisture. The inherent nature of the storage materials is expected to contribute to an overall estimated control efficiency of 38.4 percent. This estimate was based on emission factors developed from the expanded methodology provided in Table 2, Technical Guidance Document EPA 450/3-77-010. No external controls are projected to be required.

NO_x

The two primary sources of nitrogen oxide emissions are 1) the Oil Fired Package Boiler and 2) the two phosphate rock dryers. Nitrogen oxides generated by mobile sources such as haul trucks, etc., are not subject to PSD review.

The control of nitrogen oxide emissions in boilers is generally performed by combustion modification techniques. However, recently some developmental work has been done on flue gas treatment techniques. The applicant however proposes to utilize neither one of the above techniques to reduce NO_x emissions from the 3.99 MMBTU/ hr package boiler but intends to rely solely upon the use of low nitrogen distillate fuel oil instead of residual fuel oil containing 0.4 percent nitrogen by weight. Estimates indicate the use of distillate fuel oil will reduce NO_x emissions by as much as 72.5 percent over emissions as calculated by AP-42 techniques from firing the residual fuel oil originally proposed by the applicant.

The control technique proposed for the reduction of NO_x emissions from the phosphate rock dryers is use of low nitrogen (0.3 percent nitrogen weight) Number 6 residual fuel oil and low NO_x burners. Also, some control of NO_x is expected when the dryer off-gases pass through wet scrubbing devices that have been designed for efficient removal of sulfur dioxide. Since no estimates are available for reduction in NO_x emissions obtained by the latter two techniques for phosphate rock dryers, a total of 32.6 percent reduction in NO_x emissions was estimated by the applicant due to

the use of low nitrogen fuel and an allowable NO_x limit of 0.32 lb/MMBtu was proposed. EPA disagrees with the proposed BACT for NO_x . The NSPS limit for industrial boilers firing liquid fuels is 0.30 lb/ NO_x /MMBtu. Fuel bound NO_x formation from the dryers will be minimized through use of low nitrogen fuel. Further, dryers which require lower gas temperatures than boilers need not have higher thermal NO_x formation than occurs in boilers. Therefore, a well operated dryer should not emit greater NO_x than an industrial boiler. Finally, no justification for a lower limit for NO_x from rock dryers could be found and BACT for NO_x from the dryers is determined to be 0.3 lb/MMBtu. The combination low nitrogen fuel and low NO_x burners are capable technology for meeting the limit.

B. Increment Analysis

The applicant is required to demonstrate that the proposed source does not cause or contribute to a violation of any maximum allowable increments consistent with paragraph (1) of the PSD regulations. Increments have been defined for PM and SO_2 . However, SO_2 impacts from the package boiler and rock dryers (44.4 tons/yr) were determined to be less than the significance levels defined in the preamble to the 1978 PSD regulations (43 FR26398). For this reason, refined air quality analysis is not required. The results of this analysis are summarized in Table 2. Therefore only the increment analysis for PM is required.

The applicant used the EPA approved Air Quality Display Model (AQDM) for evaluating long-term air quality effects contributed by the proposed source. Meteorological input was represented by a five year period measured at the Tampa National Weather Service (NWS) Station. Modeling of the emissions from the proposed construction was performed in conjunction with 33 other increment consuming sources listed in Table 3. Annual air quality effect of increment consuming sources was determined for maximum allowable annual emission rates of all sources for comparison with the allowable annual mean PSD increment of 19 micrograms per cubic meter (refer to Table 4).

Table 2
SO₂ Significance Test

<u>Averaging Time</u>	<u>PSD Significance Level</u>	<u>Source Impact</u>	<u>Method of Estimation</u>
Annual	1	0.2	AQDM
24-Hour	5	2.3	PTMTP-W
3-Hour	25	5.2	Larsen's Technique*

* Determined from 24-hr concentration using factors listed in Volume 10, Air Quality Maintenance Guideline (Larsen's Technique). Note that monitoring data analysis verified the validity of the technique for this source.

TABLE 3. INTERACTIVE SOURCE LIST

NEDS No.	Source Name	UTM Coordinates		Ht. (ft)	Diam. (ft)	Temp. °F	Flowrate (ACFM)	Allowed Particulates (lb/hr)	Operational Hours		
									Hours Day	Days Week	Weeks Year
1800-102-1	Borden - Rock Dryer	394.7	3069.6	100	4.0	210	90,000	42.32	24	5	52
1800-102-2	Borden - Dry Rock Storage	394.7	3069.6	27	3.1	75	18,000	42.32	17.3	5	52
1800-102-3	Borden - Dry Rock Shipping	394.7	3069.6	26.5	1.1	70	18,000	50.44	5.8	5	52
1800-50-1	S.I. Lime - Bulk Terminal	362.9	3084.7	60	2.0	95	1,000	31.83	8	6	52
1800-8-44	Gardinier - Ammonia Phosphate Plant	362.9	3082.5	80	3.0	130	20,000	16.2	22	7	52
1800-8-45	Gardinier - Vessel Loading Facility	363.2	3082.3	3	2.3	72	16,000	40.0	24	1.5	52
1800-50-5	Chloride - Lead Oxide Transfer System	361.8	3088.3	40	1.5	125	5,500	12.88	24	5	50
1800-50-6	Chloride - Lead Oxide Kettle	361.8	3088.3	40	1.5	125	5,438	12.88	24	5	50
1800-29-6	Nitram, Inc. - Prill Tower No. 2	363.1	3089.0	200	22.6	90	150,000	27.28	16	7	50
3680-56-5	IMC Prairie - No. 4 Raymond	403.0	3087.0	65	2.0	140	6,300	19.2	24	5	52
3680-57-4	Conserv Chem. - Granulator	398.4	3084.2	211	3.2	180	35,000	30.98	24	7	52
3680-57-4	Conserv Chem. - Dryer	398.4	3084.2	201	3.52	140	44,000	31.41	24	7	52
3680-57-4	Conserv. Chem. - Sizing	398.4	3084.2	172	2.5	150	16,000	31.35	24	7	52
3680-52-15	C.F. - Phosphate Rock Unloader to Silos	408.2	3082.9	45.3	4.5	77	37,000	41.89	24	7	52
3680-55-23	Agrico - GTSP Production	407.9	3071.0	140	9.0	107	156,000	49.6	22	7	52

TABLE 3. (Continued)

NEDS No.	Source Name	UTM Coordinates		Ht. (ft)	Diam. (ft)	Temp. °F	Flowrate (ACFM)	Allowed Particulates (lb/hr)	Operational Hours		
									Hours Day	Days Week	Weeks Year
3680-59-24	New Wales - Bag Collector AFI Shipping	396.7	3079.4	120	8.0	125	110,000	40.41	24	7	48
3680-59-25	New Wales - Limestone Storage	396.7	3079.4	50	1.0	80	4,000	33.33	24	7	48
3680-59-26	New Wales - Silica Storage	396.7	3079.4	18	1.0	77	1,500	14.99	24	7	52
3680-59-27	New Wales - Granulator Plant for AFI	396.7	3079.4	172	8.0	120	130,000	36.8	24	7	50
3680-59-28	New Wales - AFI Silos	396.7	3079.4	116	1.0	77	1,600	36.2	24	7	52
3680-59-29	New Wales - Railroad & Truck Shipping	396.7	3079.4	40	3.0	80	12,000	41.88	24	7	50
3680-59-30	New Wales - Soda Ash Unloading	396.7	3079.4	61	.66	77	1,500	16.76	8	7	50
3680-59-31	New Wales - Soda Ash Conveying	396.7	3079.4	45	1.0	77	1,500	15.00	8	7	50
3680-59-32	New Wales - A Kiln Cooler	396.7	3079.4	87	1.5	325	30,000	15.00	24	5	50
3680-59-33	New Wales - B Kiln Cooler	396.7	3079.4	87	1.5	325	30,000	15.00	24	7	50
3680-59-34	New Wales - Multifos Sizing	396.7	3079.4	17	1.25	225	10,000	23.00	24	7	50
3680-59-35	New Wales - Multifos Class. System	396.7	3079.4	57	1.25	175	6,000	18.44	24	7	50
3680-59-36	New Wales - Dryer & 2 Kilns	396.7	3079.4	172	4.5	100	43,000	18.41	24	7	50
3680-59-37	New Wales - DAP/MAP Loadout	396.7	3079.4	N/A	N/A	80	18,500	38.6	24	7	52
3680-59-38	New Wales - AFI Storage and Loading	396.7	3079.4	65	1.0	85	8,000	40.35	24	7	52

TABLE 3. (Continued)

NEDS No.	Source Name	UTM Coordinates		Ht. (ft)	Diam. (ft)	Temp. °F	Flowrate (ACFM)	Allowed Particulates (lb/hr)	Operational		Hours
									Hours Day	Days Week	Weeks Year
3680-50-38	USS Agri-Chem. - DAP Facility	413.2	3086.3	133	7.0	90	110,000	34.35	24	7	52
3680-50-39	USS Agri-Chem. - DAP/MAP Storage & Loading	413.2	3086.3	74	2.0	80	30,000	43.12	4	7	
2540-29-1	Manatee Energy - Splitter Boiler	346.6	3057.7	64	2.0	550	5,000	1.25	24	7	50
2540-29-1	Manatee Energy - Splitter Furnace	346.6	3057.7	100	3.0	550	9,100	5.75	24	7	50
1680-11-1	American Orange - Citrus Peel Dehydrator	419.8	3047.3	34.5	10.0	185	27,000	10.12	24	6	28
1680-11-2	American Orange - Citrus Pulp Dehydrator	419.8	3047.3	35.5	13.3	185	45,000	16.52	24	6	28

TABLE 4. CLASS II INCREMENTS

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Maximum Allowable Increases (Increments) Micrograms/Meter³</u>
Sulfur Dioxide (SO ₂)	Annual Mean	20
	24 - Hr.	91 ^a
	3 - Hr.	512 ^a
Particulate Matter (PM)	Annual Mean	19
	24 - Hr.	37 ^a

^a The applicable maximum allowable increase may be exceeded during one such period per year at any receptor site.

loading station consists of a compartmented 100 ton washing bin on load cells as illustrated in Figure 2. The bins will be loaded with enclosed, variable speed conveyor belts through hooded hoppers and a distribution chute system. Each bin will discharge through eight spouts into the hatches of a 100 ton railroad hopper car. Fugitive PM emissions at all transfer points are designed to be captured by collection systems. The captured emissions are ducted to Centrifield wet scrubbers. The outlet grain loading of the scrubbers is listed as 0.022 gr/DSCF by the manufacturer. The collection efficiency of the scrubbers is estimated to be 99.72 percent. This is comparable to the collection efficiencies of 99.7 percent listed for alternative control devices such as the fabric filter and the wet centripetal vortex contact scrubber.

The oil fired package boiler will use distillate fuel as a means of limiting PM emissions. The boiler PM emissions are estimated to be 0.057 lb/hr or 0.25 tons per year. EPA agrees that this rate meets BACT for PM for the boiler and no additional controls are required.

The applicant estimates that mining and reclamation activities will disturb approximately 3 acres of land on any given day. However, since the material handled is in a relatively moist condition at the time it undergoes active disturbance, a limited amount of fugitive emissions will be generated.* As the mining and reclamation activities constantly move into new areas, disturbed ground surfaces are left behind which contribute to fugitive dust emissions. It is estimated that this would contribute up to 43.1 tons per year of fugitive dust emissions. Control measures such as water spraying in cases like these are not quite effective due to accessibility problems of these areas by light vehicles and the subsequent generation of fugitive dust by these vehicles even if such spraying is possible. A proposed long term measure suggested by the applicant is the introduction of interim vegetative cover, i.e., grass, as soon as practical after completion of activities which disturb the ground surface. The new vegetation will encourage establishment of more permanent natural grasses and plants and help to

*Verified by EPA-450/3-78-030 "Air Pollution Control Techniques For The Phosphate Rock Industry." No fugitive emissions are anticipated from quarry operations.

The results indicated the annual effect of all increment consuming sources at the point of maximum impact to be 1.4 micrograms per cubic meter, about 8 percent of the increment. Estimated annual effects of the increment consumers at the property boundaries ranged from 0.4 to 0.7 micrograms per cubic meter. Effect at the nearest population groups - Keentown and Duette was 0.5 and 0.4 micrograms per cubic meter respectively.

Short-term air quality effects were computed from all allowable source emission rates listed in Table 1 using the PTMTP-W computer model and worst case (highest, second highest concentration) meteorology. Worst case meteorology was determined from CRSTER computer code analysis of five years of hourly meteorological data. All major upwind increment consuming sources or source groupings were included in the model runs to identify maximum highest, second highest short-term concentrations within the proposed source's impact area irrespective of property boundaries and for two locations on property boundaries.

Short-term effects of all increment consuming sources at the worst two points of highest, second highest concentrations were found to be 12.9 and 9.8 micrograms per cubic meter. Increment consumption was therefore 12.9 micrograms per cubic meter or 35 percent of the allowable 37 micrograms per cubic meter (refer to Table 3) PSD increment at the point of maximum concentration. Increment consumption at the worst two property boundary locations were found to be 8.1 and 5.2 micrograms per cubic meter. Further analysis of short-term increments considering source interaction is determined to be unnecessary on the basis that the proposed source's impact area is small (~5 kilometers) relative to the distance from other sources (~20 kilometers) and no potential for serious interaction exists. The analysis adequately demonstrates preservation of the short term increments.

It must be noted that concentrations of particulate matter attributable to the increase in emissions from construction and other temporary activities were excluded from increment consumption in accordance with paragraph (iii) of 40 CFR 52.21 (j).

Further, fugitive PM emissions from rock handling, etc. which do consume increment were not considered in the modeling analysis consistent with current Region IV policy. Region IV policy currently does not require modeling for fugitive PM because of the controversy over the accuracy of currently available fugitive modeling techniques. In addition, fugitive dust emissions were treated as not consuming increment in accordance with PSD regulations.

C. NAAQS Analysis

The applicant must perform a NAAQS analysis to demonstrate that emissions of PM and NO_x do not threaten the NAAQS ceilings for these pollutants. As explained previously the source is exempt from refined air quality analysis of SO₂ emissions.

The NAAQS analysis is similar to the increment analysis discussed above. Ambient concentrations were determined for annual and 24 hour average conditions using the AQDM and a combination of CRSTER PTMTP-W computer runs, respectively, for several locations of worst effect. The grid spacing was 0.1 kilometers. The data presented in Table 5 indicates that NAAQS for these pollutants will not be violated as a result of the operation of the proposed facility. This assessment was performed by combining the calculated air quality levels contributed by the proposed source and surrounding sources to existing background levels. The background levels for TSP were obtained by measurement from six monitors located in the general vicinity of the proposed project location.

D. Soils, Vegetation, Visibility

The applicant has stated that no adverse impacts on soils or vegetation will result from the operation of the proposed new source. Any effect at all to the nearby agricultural lands, e.g., citrus, grazing pasture, etc., is expected to be beneficial due to the nutritive values of the phosphate and sulfur compounds contained in the particulate matter emissions. Plumes from the stacks will contain varying degrees of heated water vapor and will dissipate within a relatively short distance from the stack. Although plumes are aesthetically unattractive, in this case the landscape is not viewed as characteristically scenic and therefore the plume is not expected to detract from aesthetic values.

TABLE 5. AMBIENT AIR STANDARDS COMPARED TO CALCULATED CONCENTRATIONS AND BACKGROUND

Pollutant/Averaging Time	Background ($\mu\text{g}/\text{m}^3$)	Maximum Calculated ^d Concentrations ($\mu\text{g}/\text{m}^3$)	Total Concentrations	NAAQS ($\mu\text{g}/\text{m}^3$)
TSP				
- 24 hr.	110.4 ^b	12.8	123.2	150
- annual	29.2 ^a	1.2	30.4	60
NO ₂				
- annual	20 ^c	1.0	21.0	100

a Based on the measured highest annual geometric mean for 1977-1978.

b Based on the highest second highest 24-hr measurement for 1977-1978.

c Yearly maximum annual average concentrations measured 6 miles from the source from 1974-1978 of 20 $\mu\text{g}/\text{m}^3$ was utilized as a conservative estimate of NO₂.

d Includes concentrations contributed by surrounding sources listed in Table II.

E. Growth Impacts

Vehicular travel on paved and unpaved roadways to and from the proposed source is expected to cause fugitive dust emissions. It is estimated that 325 employee vehicles and a smaller number of service and delivery vehicles will be using the paved access road to the plant. The construction work force during the construction period will also contribute to vehicular fugitive dust emissions. Population growth and commercial activities are not expected to develop in the immediate area of the mine.

F. Class I Area Analysis

No Class I area is within a radius of 100 Km of the proposed source. The Chassahowitzka National Wilderness Area is located approximately 130 Km to the north west of the proposed source. Approximately 200 Km to the south east is the Everglades National Park. Considering the modeling results which indicated acceptable ambient concentrations in the vicinity of the plant and the additional dispersion which will occur over this distance, no adverse impact on these Class I areas is expected from the proposed construction.

V. Conclusions

EPA Region IV proposes a preliminary determination of approval for construction of the phosphate rock mining facilities at Estech General Chemicals Corporation's Duette Mine in Manatee County, Florida proposed in their application received August 16, 1979. This approval is based on the information provided in their application and additional information received in correspondence dated August 21, 1979, January 22, 1980, and March 10, 1980. The conditions set forth in the permit are as follows:

1. The proposed construction will be in accordance with the capacities and specifications stated in the application. This specifically includes:
 - a) Fluid bed phosphate rock dryers (2);
 - Maximum capacity - 262 tons/hr each (dry basis) or 290 tons/hr each (wet basis)
 - NO_x control technology - low NO_x burners
 - SO₂ control technology - wet dual alkaline scrubbers/low sulfur fuel
 - Type of fuel used - Number 6 residual oil with nitrogen and sulfur content not to exceed 0.3 and 1 percent by weight, respectively.

TABLE 6 . ALLOWABLE EMISSION RATES

Facility	PM	NO _x	SO ₂
Phosphate Rock Dryers (2)	22.93* lbs/hr and 0.098 lb/MMBTU heat input	71 lb/hr and 0.30 lb/MMBTU heat input	8.60 lbs/hr and .037 lb/MMBTU heat input
Package Boiler	0.057 lbs/hr and 0.014 lbs/MMBTU heat input	0.624 lb/hr and 0.16 lb/MMBTU heat input	2.82 lb/hr and 0.71 lb/MMBTU heat input
Dry Rock Storage Silos	8.74 lbs/hr		
Dry Rock Loading Station	5.77 lbs/hr		

* Corresponds to 0.04 lb TSP/Ton of Phosphate Rock Feed (Wet Basis)

- b) Package boiler (1):
 - Capacity - 100 HP
 - Maximum heat input - 3.99 MMBTU/hr
 - Type of fuel used - distillate oil with sulfur content not to exceed 0.7 percent by weight, respectively.
2. The allowable emissions limits for emission sources of PM, NO_x and SO₂ are listed in Table 6.
3. Compliance with each allowable emissions limit listed in condition 2 will be determined by performance tests. Operation during these tests will be within 10% of the rated maximum capacity. Tests will be conducted with EPA standard methods and in accordance with the applicable provisions of 40 CFR 60.8. Testing of emissions will be carried out isokinetically with a minimum sampling volume of 30 dscf and a minimum sampling time of 60 minutes for each run and three runs per test. NO₂ grab samples will be obtained at 15 minute intervals.
4. The applicant is required to install, calibrate, maintain and operate a continuous monitoring system, and record the output from the system, for measuring the NO_x content of the flue gases from the phosphate rock dryers.
5. The following measures will be complied with for fugitive PM and dust emissions:
 - a) Speed limit on unpaved roads is not to exceed 20 miles per hour. In addition, unpaved roads are to be sprayed with water and where practical and environmentally safe, watering should be supplemented with dust suppressant chemicals.
 - b) Speed limit on paved roads is not to exceed 30 miles per hour.
 - c) Exposed areas due to mining and reclamation activities are to be revegetated as soon as possible or within one year from the time overburden is initially spread and graded.
 - d) The top surface (to a depth of 6 inches) of material storage piles must be maintained at a moisture content of at least 13 percent.
6. The applicant will comply with the requirements and provisions of the attached general conditions.

7. The phosphate rock dryers will not operate greater than 7446 hours per year (365 day consecutive period) or in excess of the capacity and fuel limits listed in condition 1. To show compliance with these restrictions a log will be maintained daily which indicates for each dryer cumulative hours of operation for each preceding 365 day period and the time of each unit startup and shutdown. Unit startup is defined as the point at which combustion commences. In the dryer log, entries of startup times will be made prior to unit startup. The log also will contain a record of sulfur and nitrogen contents of all fuel oil fired in the dryers and the sulfur content of the fuel oil fired in the package boiler.

GENERAL CONDITIONS

1. The permittee shall notify the permitting authority in writing of the beginning of construction of the permitted source within 30 days of such action and the estimated date of start-up of operation.
2. The permittee shall notify the permitting authority in writing of the actual start-up of the permitted source within 30 days of such action and the estimated date of demonstration of compliance as required in the specific conditions.
3. Each emission point for which an emission test method is established in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source. The permittee shall notify the permitting authority of the scheduled date of compliance testing at least thirty (30) days in advance of such test. Compliance test results shall be submitted to the permitting authority within forty-five (45) days after the complete testing. The permittee shall provide (1) sampling ports adequate for test methods applicable to such facility, (2) safe sampling platforms, (3) safe access to sampling platforms, and (4) utilities for sampling and testing equipment.
4. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of two (2) years from the date of recording.
5. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall provide the permitting authority with the following information in writing within five (5) days of such conditions:
 - (a) description of noncomplying emission(s),
 - (b) cause of noncompliance,
 - (c) anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance,
 - (d) steps taken by the permittee to reduce and eliminate the noncomplying emission,and
 - (e) steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of this report does not constitute a waiver of the emission limitations contained within this permit.

6. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, modifications to the permit may then be made by the permitting authority to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations specified herein.
7. In the event of any change in control or ownership of the source described in the permit, the permittee shall notify the succeeding owner of the existence of this permit by letter and forward a copy of such letter to the permitting authority.
8. The permittee shall allow representatives of the State environmental control agency or representatives of the Environmental Protection Agency, upon the presentation of credentials:
 - (a) to enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;
 - (b) to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Act;
 - (c) to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
 - (d) to sample at reasonable times any emission of pollutants;and
 - (e) to perform at reasonable times an operation and maintenance inspection of the permitted source.
9. All correspondence required to be submitted by this permit to the permitting agency shall be mailed to the:

Chief, Air Facilities Branch
Air and Hazardous Materials Division
U.S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30308
10. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

The emission of any pollutant more frequently or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

BEFORE THE UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REGION IV

In Re: Estech, Inc. -)
Prevention of Significant)
Deterioration Construction)
Permit PSD-FL-036)

REQUEST FOR EXTENSION OF TIME
TO COMMENCE CONSTRUCTION

Estech, Inc., pursuant to 40 C.F.R. § 52.21(r)(2), hereby requests an extension of time to commence construction and in support thereof states:

Background

1. On February 2, 1982, Estech General Chemicals Corporation received a prevention of significant deterioration construction permit No. PSD-FL-036, dated January 29, 1981 (PSD Permit), authorizing construction of certain facilities at the company's proposed phosphate rock mine and processing plant to be located in Manatee County, Florida (Duette Mine). The PSD Permit (Exhibit A) was issued pursuant to Section 165 of the Clean Air Act and 40 C.F.R. § 52.21. (Estech General Chemicals Corporation subsequently changed its name to Estech, Inc. and will be referred to in this Request as "Estech.").

2. By letter dated April 1, 1982 (Exhibit B), counsel for Estech advised the Regional Administrator of the United States Environmental Protection Agency-Region IV (EPA) that Estech would not be able to commence construction on the permitted air emission facilities within eighteen (18) months from the date of receipt of the PSD Permit as required by Section 52.21(r). By letter dated April 20, 1982 (Exhibit C), EPA requested the submittal of this Request together with supporting documentation.

Reasons for Request

(a) NPDES/NEPA Requirements

3. By letter dated May 15, 1978, EPA determined that the Duette Mine was a "new source" as defined in Section 306 of the Clean Water Act (33 U.S.C. § 1316) and was subject to the environmental review requirements of the National Environmental Policy Act of 1969 (42 U.S.C. § 4332). EPA issued a draft environmental impact statement (EIS) [Document No. EPA 904/9-79-044] on the Duette Mine project in October, 1979. A public hearing on the draft EIS was held on November 28, 1979. EPA issued a final EIS [Document No. EPA 904/9-80-051] on the Duette Mine project in September, 1980.

4. Estech filed its application for a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act (33 U.S.C. § 1342) with EPA on January 5, 1979. A draft NPDES permit was prepared by EPA and was included as part of the draft EIS (at pp. 181-188). A public hearing on the draft NPDES permit was held on September 10, 1980. A revised draft NPDES permit was included in the final EIS (at App. 8.1.).

5. Concurrently with the processing of the federal environmental review and NPDES permitting process, Estech was engaged in state administrative licensing proceedings to obtain necessary construction permits from the State of Florida Department of Environmental Regulation (DER). In addition to construction permits required by applicable state law, Estech sought the state certification of the federal NPDES permit required by Section 401 of the Clean Water Act (33 U.S.C. § 1341). As part of the state administrative proceedings, Estech agreed with DER to make certain physical changes in the proposed Duette Mine project that would result in a revised water management program. These physical changes are described in a letter from counsel for Estech to Ms. Jean Tolman of EPA, dated November 13, 1981 (Exhibit D). By final order entered on May 28, 1982

(Exhibit E), the Secretary of DER determined that the state construction permits and the state certification would be issued to Estech. Manatee County, a participant in the state-level proceedings, has filed a notice of appeal of the Secretary's final order in the Florida First District Court of Appeal (Exhibit F). ManaSota-88, Inc., has joined in this appeal.

6. By letter dated February 17, 1982 (Exhibit G), Mr. Howard Zeller, then EPA Acting Assistant Regional Administrator for Policy and Management, determined that the proposed revisions to the Duette Mine project made it necessary for EPA to prepare a supplement to the final EIS to address the impacts, if any, that may be associated with the changes. The supplement to the final EIS will be prepared by Conservation Consultants, Inc. (CCI) in accordance with the "third party" procedure. In this procedure, a private consulting firm prepares the environmental review document for and under the direction of EPA. Costs of preparation are borne by the applicant. CCI has prepared a final plan of study for the preparation of the supplement to the final EIS (Exhibit H). The schedule set forth in the plan of study estimates that the supplement will be complete in December, 1982.

7. Estech has been advised by representatives of EPA that the agency intends to reopen the public comment period on the draft NPDES permit to allow limited additional comments on issues relating to the June, 1981 state-level water quality reclassification of the Manatee River (the receiving stream for any wastewater discharges from the Duette Mine). It is Estech's understanding that the reopened comment period will run through the close of the public comment period on the draft supplement to the final EIS.

8. Under current law, Estech may not commence construction at the Duette Mine (absent extraordinary relief from the Regional Administrator of EPA) until the NEPA en-

vironmental review process is complete and the final NPDES permit has been issued. See 40 C.F.R. § 122.66(c)(4)(i).

(b) Local Permitting

9. Under Chapter 380, Florida Statutes (1981), development of regional impact (DRI) approval is required for any project (such as the Duette Mine) with potential multi-county impact. The initial DRI decision rests with the local government (i.e., Manatee County), which is required to receive and consider the report and recommendations of the regional planning agency (i.e., Tampa Bay Regional Planning Council or TBRPC).

10. Estech's Duette Mine site property is zoned "A General Agricultural District." Under the Manatee County zoning ordinance in effect in 1978 (Zoning Ordinance), mining is permitted in this zoning following approval by the County of a special exception and a master mining plan, and subsequent issuance of an operating permit. If the mining project constituted a DRI, the Zoning Ordinance provided for simultaneous processing of the DRI, the special exception, and the master mining plan.

11. On May 5-9, 1978, Estech filed applications with Manatee County pursuant to the Zoning Ordinance for approval of a special exception, a master mining plan, and a development of regional impact for its Duette Mine. The Tampa Bay Regional Planning Council and the Manatee County Planning Commission recommended that the applications be approved with conditions.

12. On August 16, 1979, the Board of Commissioners of Manatee County overruled the recommendations of the TBRPC and the Manatee County Planning Commission, and denied the special exception, the master mining plan, and the DRI. Pursuant to Chapter 380, Florida Statutes, Estech appealed this decision to the Florida Governor and Cabinet, sitting as the Land and Water Adjudicatory Commission (LWAC).

13. On October 15, 1980, the LWAC entered a final order approving Estech's applications for special exception, master mining plan, and DRI.

14. On November 7, 1980, Manatee County appealed the LWAC order to the Florida Second District Court of Appeal.

15. On August 5, 1981, the Second District Court of Appeal affirmed in its entirety the order of the LWAC granting Estech its special exception, master mining plan, and DRI Approval. On January 21, 1982, the Supreme Court of Florida declined to review the order of the Second District Court of Appeal.

16. In 1981, while review of the LWAC order was pending before the Second District Court of Appeal, Manatee County enacted major changes in its land use regulations.

(a) On April 30, 1981, Manatee County enacted Ordinance No. 81-4, the Manatee County Comprehensive Zoning and Land Development Code (New Zoning Code). The New Zoning Code does not contain master mining plan and operating permit provisions comparable to those of the Zoning Ordinance, nor does it allow mining in an A General Agricultural District. To allow mining activities, the property must be rezoned to EX Extraction District.

(b) Effective November 6, 1981, Manatee County enacted Ordinance No. 81-22, the Manatee County Mining and Reclamation Ordinance (Mining Ordinance), which contains master mining plan and operating permit provisions that are significantly more burdensome than the comparable provisions of the Zoning Ordinance.

(c) In connection with these changes, Manatee County enacted a series of three moratorium ordinances prohibiting the acceptance or processing of applications for operating permits or other mining related applications. These included Ordinance No. 81-6, a 90-day moratorium adopted on April 21, 1981; Ordinance No. 81-14, a 60-day moratorium adopted July 21, 1981; and Ordinance No. 81-18, a

60-day moratorium adopted September 15, 1981 (Exhibits I, J, and K respectively). The effect of these moratoria was to prevent the processing of any operating permit applications from late April, 1981, until on or about November 21, 1981.

17. On December 11, 1981, Estech filed an operating permit application with Manatee County and tendered the \$25,000 filing fee [Exhibit L (transmittal letter only)]. On December 14, 1981, Manatee County rejected the filing (Exhibit M).

18. On December 15, 1981, Manatee County enacted Ordinance No. 81-24, a fourth moratorium ordinance prohibiting the accepting, receiving, filing, processing or handling of any applications for mining approval in the watershed of Lake Manatee for a period of 90 days (Exhibit N). One purpose of this fourth moratorium ordinance was to give Manatee County time to consider and enact an ordinance creating a new zoning classification (Special Treatment District of "ST District") applicable to all property located in the watershed of Lake Manatee.

19. Ordinance No. 82-2, the ST District Ordinance, purports to rezone all property in the watershed of Lake Manatee so as to subject it to the special treatment district zoning regulations. Estech's Duette Mine site lies largely within the Special Treatment District.

20. On December 23, 1981, Estech requested written clarification from Manatee County as to the applicability to the Duette Mine of the various ordinances which had been enacted subsequent to approval of its zoning special exception and master mining plan under the Zoning Ordinance. By letter dated February 4, 1982 (Exhibit O), Manatee County's Phosphate Mining Coordinator advised Estech of the preliminary determination that both the Mining Ordinance (effective November 6, 1981) and the ST District rezoning (effective January 11, 1982) would apply to the Duette Mine and that "zoning approval" under the ST District Ordinance would be required before an operating permit application could be

received and processed. Estech vigorously disputes the applicability of these ordinances to the Duette Mine. Estech contends that it has vested rights to zoning pursuant to the previously issued special exception and that it is entitled to apply for and receive an operating permit under the Zoning Ordinance in effect on October 15, 1980, the date of the LWAC final order.

21. On March 15, 1982, Manatee County adopted Ordinance No. 82-04, a fifth moratorium ordinance which prohibits the accepting, receiving, processing, handling or considering of any application for mining approvals in the watershed of Lake Manatee for a period of 180 days (Exhibit P). An exception from the fifth moratorium is provided for any applicant that "can demonstrate that the impacts of its particular proposed development on human health, safety, and welfare can be predicted with reasonable certainty on the basis of existing knowledge."

22. Estech refiled its application for an operating permit on March 18, 1982, and again tendered the \$25,000 filing fee [Exhibit Q (transmittal letter only)]. Manatee County rejected the operating permit application on the grounds that the fifth moratorium (Ordinance No. 82-4) prevents acceptance or processing of operating permit applications (Exhibit R).

23. Manatee County considered the applicability to Estech of the exception from the fifth moratorium at meetings of the Board of County Commissioners held on April 6, April 20, and May 4, 1982. At the meeting on May 4, 1982, Manatee County adopted a resolution declaring that the exception is not applicable to Estech (Exhibit S).

24. On May 6, 1982, Estech filed a Petition for Writ of Mandamus and Complaint for Declaratory Judgment in the Circuit Court for Manatee County seeking, inter alia, a judicial order requiring Manatee County to accept and process Estech's application for an operating permit. The case

is pending as Estech, Inc. v. Manatee County, et al., Case No. CA-82-916 (12th Jud. Cir. Ct.).

25. The Zoning Ordinance requires that any person who desires to carry out mining operations in Manatee County shall apply for an obtain an operating permit "before commencing operations." See Section VI., ¶ 16, § 3.3. It is unclear whether the issuance of an operating permit under the Zoning Ordinance is a prerequisite to the construction, as opposed to operation, of the air emission facilities that are the subject of the PSD permit in this case. The new Mining Ordinance provides that no pre-mining construction activities are authorized prior to issuance of an operating permit unless reviewed and approved by the county as part of master mining plan approval under the new Mining Ordinance. See Ord. No. 81-22, Part III.D.2.

Summary

26. The facts set forth in this Request demonstrate that the federal NEPA new source pre-construction review process and NPDES permitting activity will not be completed until several months after the expiration of the 18-month construction period established by the PSD Permit.

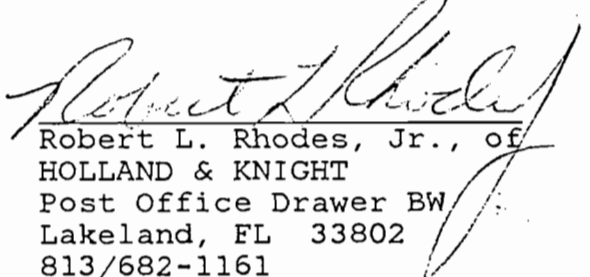
27. The facts set forth in this Request also demonstrate that Estech and Manatee County are in dispute as to the applicable local operating permitting and zoning requirements. Manatee County has refused on two occasions to accept Estech's operating permit application for review. Litigation designed to resolve certain of the threshold issues is currently pending. It is impossible to predict how long it will take for such litigation (including appeals) to be completed. In addition, assuming that Manatee County ultimately accepts the application for an operating permit, it is impossible to predict the length of the permit review and approval process. In light of the history of this project, it is reasonable to expect that the time frames involved will extend beyond the expiration of the 18-month time period established in the PSD Permit.

28. Estech has exercised due diligence and good faith efforts in its attempts to obtain all necessary pre-construction permits and approvals for the air emission facilities that are the subject of the PSD Permit. Despite these efforts, it will be impossible for Estech to commence construction on the facilities within the requisite 18-month time frame.

Request for Relief

WHEREFORE, Estech requests EPA to grant an extension of the time within which it must commence construction on the air emission facilities subject to PSD Permit No. PSD FL-036 until August 2, 1985.

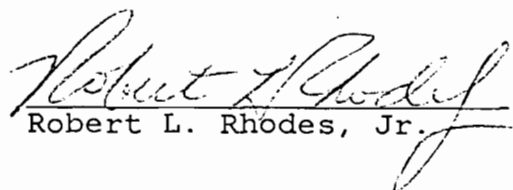
Respectfully submitted,


Robert L. Rhodes, Jr., of
HOLLAND & KNIGHT
Post Office Drawer BW
Lakeland, FL 33802
813/682-1161

Attorneys for Estech, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the foregoing document was sent by United States Mail, certified return receipt requested, postage prepaid to Mr. Charles R. Jeter, Regional Administrator, United States Environmental Protection Agency, Region IV, 345 Courtland Street, Atlanta, Georgia 30365 this 10th day of June, 1982.


Robert L. Rhodes, Jr.

Estech1-52682:25



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

DATE: 8-11-82
FILE NO: 3668-76
FILE NO:
REF:
ROUTE TO:
RETURN TO:

AUG - 5 1982

REF: 4AW-AM

Mr. Robert L. Rhodes, Jr.
Holland and Knight
P. O. Drawer BW
Lakeland, Florida 33802

Dear Mr. Rhodes:

This is in response to your June 10, 1982, request for an extension of Estech, Inc's. Prevention of Significant Deterioration (PSD) permit, which was issued on February 2, 1981. Specifically, you requested an extension of the "commence construction" deadline for Estech's proposed phosphate rock mine and processing plant to be located in Manatee County, Florida, until August 2, 1985. That date is three years beyond the original permitted expiration date.

We agree that Estech has been the recipient of several permitting delays. However, the burden of obtaining all of the necessary permits and licenses lies solely with Estech and is not the responsibility of EPA.

It is EPA's determination that Estech, Inc., has satisfactorily showed just cause for a permit extension, due mainly to regulatory delays extraneous to the PSD permitting process. Although it remains this Region's policy to discourage PSD permit extensions, due to the problems of increment reservation that are created by such actions, EPA agrees to allow, in this case, a permit extension to Estech, Inc., for an additional 18 months (February 2, 1984). By taking this position, the Region is able to discourage sources from requesting excessively long permit extensions and thereby tying up increment allocations unfairly, so as to prevent industrial growth from other companies in this and other areas.

As of the date of this letter, permission is hereby granted to Estech, Inc., extending its commence construction date to February 2, 1984. This letter should be attached to and become a binding part of the original PSD permit that was issued by this Agency on February 2, 1981.

If you have any questions concerning this matter, please contact Mr. James T. Wilburn, Chief, Air Management Branch, Air and Waste Management Division, EPA Region IV.

Sincerely yours,



Charles R. Jeter
Regional Administrator

cc: Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation

LAW OFFICES

HOLLAND & KNIGHT

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406 THIRTEENTH STREET WEST
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(813) 745-7107

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(813) 223-1621

600 MARYLAND AVENUE, S. W.
WASHINGTON, D. C. 20024
(202) 484-9090

PLEASE REPLY TO: Lakeland, Florida
June 3, 1983

CABLE ADDRESS
HND KNIGHT TPA
H&K MIA
TELEX 5-2630-TAMPA
TELEX 52-2233-MIAMI

Mr. Charles R. Jeter
Regional Administrator
United States
Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: Estech, Inc. - Proposed Duette Mine -
Draft NPDES Permit No. FL0036609

Dear Mr. Jeter:

On January 5, 1979, Estech, Inc. (then named Swift Agricultural Chemicals Corporation) filed an application for an NPDES permit in connection with the company's proposed Duette phosphate rock mine and beneficiation facility in Manatee County, Florida. At that time, the company proposed a conventional water management system that would have resulted in discharges to waters of the United States on a regular basis.

Subsequent discussions and negotiations with the State of Florida Department of Environmental Regulation in connection with administrative proceedings involving required state permits led Estech to propose to make revisions to its water management program. These revisions were described in detail in our letter (dated November 13, 1981) to Ms. Jean Tolman of EPA. In addition, Estech submitted a detailed explanation of the revised water management program to the administrative record on the NPDES permit by letter of Ronald J. McGregor, Environmental Engineer, dated December 1, 1982.

The conceptual water balance developed in connection with the revised water management plan demonstrated that the possibility of discharges to waters of the United States were extremely remote even under simulated worst case conditions. Estech had elected to proceed with the NPDES permitting process in order to obtain a federal permit that

Mr. Charles R. Jeter
June 3, 1983
Page 2

would authorize a discharge under these highly unlikely circumstances. Subsequent events have led Estech to conclude that such permitting efforts may no longer be necessary.

First, the Florida District Court of Appeal, First District, has recently affirmed the final order of the Secretary of the Department of Environmental Regulation which called for the issuance of state permits based upon the revised Estech water management program.

Second, Estech has now completed a design level detailed water balance analysis that confirms the findings set forth in the conceptual water balance referred to above. A copy of the design level water balance has been previously forwarded to your staff for review.

Under the circumstances, therefore, Estech requests your advice as to whether an NPDES permit is required for the construction and operation of Estech's proposed Duette mine and beneficiation facility in Manatee County, Florida.

Thank you very much for your cooperation.

Sincerely,

HOLLAND & KNIGHT


Robert L. Rhodes, Jr.

RLR, Jr/sah
0366800731CRJ:25
cc: Mr. Paul Traina
Mr. Mike McGhee
Ms. Andrea Zimmer
Ms. Jean Tolman
Craig Bromby, Esquire



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JUN - 7 1983

REF: 4WM-FP

Mr. John Oskam, Vice-President
Estech, Inc.
First Commercial Bank Building
410 Cortez Road, W.
Bradenton, FL 33507

Dear Mr. Oskam:

This letter is in response to the June 3, 1983, letter from Mr. Robert L. Rhodes, Holland and Knight, which outlined events that have occurred since Estech's filing of a new source National Pollutant Discharge Elimination System (NPDES) permit application in 1979.

Since the NPDES permit application was filed, Estech has proposed a revised water management program which would avoid discharges from the Duette Mine to the East and North Forks of the Manatee River. This conceptual revised water management program was evaluated in the Draft Supplement to the Environmental Impact Statement, with the conclusion that a discharge would be extremely remote even under the worst case conditions.

Since publication of the Draft Supplement to the EIS, Estech has completed a design level detailed water balance analysis. A review of your design also indicates no realistic expectation of discharge of mine wastewaters to the East or North Forks of the Manatee River.

If there is to be no point source discharge of pollutants to waters of the United States, no NPDES permit is required. Information available to the Environmental Protection Agency (EPA) through the EIS documents supports such a conclusion, and therefore, EPA does not consider this project, on the basis of that information, as one requiring an NPDES permit. In making this statement, it should be understood however, that if there is a discharge from this facility, Estech would be fully liable under Section 309 of the Clean Water Act.

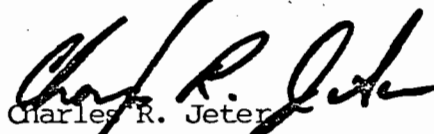
EPA recognizes that ongoing permitting proceedings with local government and the State of Florida could conceivably result in the imposition of project requirements which would then result in changes to the mine water balance. Should such water balance changes result in an expected discharge, Estech would have to reapply for a new source NPDES permit prior to its commencement. This, of course, would require recommencement of permit application and National Environmental Policy Act (NEPA) review procedures in a timely manner.

EXHIBIT E

Upon reapplication for an NPDES permit, EPA would reactivate the NEPA compliance procedures pertaining to new source NPDES permit actions. Absent changes in circumstances and significant new information, the NEPA documents and procedures already completed for the project remain valid and complete. Any project revisions would be the subject of NEPA review by EPA.

If you wish to withdraw your application for an NPDES permit, please submit a written certification indicating that Estech no longer intends to discharge pollutants to waters of the United States. Upon receipt of this certification, your NPDES permit application will be inactivated.

Sincerely yours,


Charles R. Jeter
Regional Administrator

Estech, Inc.

JOHN OSKAM
Vice President Mining

June 8, 1983

Mr. Charles R. Jeter
Regional Administrator
United States
Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: Estech, Inc. - NPDES Permit Application FL0036609

Dear Mr. Jeter:

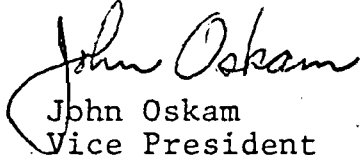
In light of the exchange of correspondence between you and legal counsel for Estech (copies attached), we hereby withdraw the above referenced pending application for an NPDES permit for our proposed Duette Mine in Manatee County.

We hereby certify that Estech, Inc. intends to operate its proposed Duette Mine and Beneficiation Plant in accordance with the Water Management Program previously submitted to the Agency. Accordingly, Estech, Inc. does not intend to discharge to waters of the United States.

Thank you very much for your cooperation.

Sincerely,

ESTECH, INC.


John Oskam
Vice President

/nj
Attachments

EXHIBIT F

Rob Rhodes

RECEIVED JUN 22 1983



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JUN 17 1983

DATE: 6/23/83
FILE NO.: 3668-13
FILE IN: _____
REF: _____
ROUTE TO: _____
RETURN TO: _____

REF: 4WM-FP

Mr. John Oskam
Vice President Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road, W.
Bradenton, FL 33507

Re: NPDES Permit Application FL0036609

Dear Mr. Oskam:

In your letter of June 8, 1983, you have certified that Estech, Inc. does not intend to discharge to waters of the United States from the proposed Duette Mine in Manatee County. Since, you have withdrawn the application for a new source National Pollutant Discharge Elimination System (NPDES) permit, NPDES permitting activity by EPA has been terminated and your application file inactivated.

If, at any future time, a discharge of pollutants to waters of the United States is desired, an application for an NPDES permit must be filed with EPA.

If you have any questions, please call Andrea E. Zimmer at (404) 881-2913.

Sincerely yours,

Paul J. Traina
Director
Water Management Division

Rob

DATE: 7-18-83
FILE NO.: 3668-73
FILE IN: _____
REF: _____
ROUTE TO: _____
RETURN TO: _____

PUBLIC NOTICE

U.S. Environmental Protection Agency
Region IV
Water Management Division
345 Courtland Street, N.E.
Atlanta, Georgia 30365
(404) 881-4316

Public Notice No. 83FL061

Date July 14, 1983

Notice of Inactivation of National
Pollutant Discharge Elimination System Permit (NPDES) Application

On February 28, 1980, the United States Environmental Protection Agency published a notice of proposed issuance of NPDES Permit No. FLO036609 to Estech, Inc. (formerly Swift Agricultural Chemicals Corporation) for its proposed Duette Mine, located between the East and North Forks of the Manatee River, at approximately Latitude 27°32'09" and Longitude 82°07'13", Manatee County, Florida. In accordance with Section 306 of the Clean Water Act of 1977, the proposed facility, which is for the mining, beneficiation, and drying of phosphate rock, was determined to be a new source and therefore subject to compliance with the National Environmental Policy Act of 1969 (NEPA).

A public hearing on the proposed permit issuance was held on September 16, 1980. On June 3, 1982, EPA reopened the comment period as a result of the State's reclassification of the receiving waters. A Draft Supplement to the Environmental Impact Statement (EIS) was published in December 1982. The comment period for the Draft Supplement and the reopened comment period for the proposed permit closed on March 1, 1983.

Since the NPDES permit application was filed, Estech has proposed a revised water management program which would avoid discharges from the Duette Mine to the East and North Forks of the Manatee River. The conceptual revised water management program was evaluated in the Draft Supplement to the Environmental Impact Statement (EIS), with the conclusion that the possibility of a discharge would be extremely remote even under the worst case conditions.

Since publication of the Draft Supplement to the EIS, Estech has completed a design-level detailed water balance analysis. A review of the design also indicates no realistic expectation of discharge of mine wastewaters to the East or North Forks of the Manatee River.

Estech has certified to EPA that it intends to operate the proposed Duette Mine without a discharge to waters of the United States. Therefore, the applicant has withdrawn the permit application and EPA has terminated permitting activity, inactivated the permit file, and suspended the related NEPA compliance procedures.

If, at any future time, a discharge of pollutants to waters of the United States is proposed for this facility, an application for an NPDES permit must be filed with EPA. Such an application would be subject to all provisions of the Clean Water Act and the National Environmental Policy Act of 1969.

###

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV

In re Estech, Inc.; NPDES)
Permit # FL0036609 and)
Supplemental Environmental)
Impact Statement for Proposed)
Phosphate Mine in Manatee)
County, Florida)

DATE: 7/11/83
FILE NO: _____
FILE NO: _____
REF: _____
ROUTE TO: _____
RETURN TO: _____

REQUEST FOR
EVIDENTIARY HEARING

Manatee County, Florida, by and through undersigned counsel, hereby requests an evidentiary hearing pursuant to 40 C.F.R. § 124.71 et seq. to contest and seek reconsideration of the decision of Charles R. Jeter, Regional Administrator of Region IV, U.S. Environmental Protection Agency, inactivating the above-referenced NPDES permit and supplemental environmental impact statement ("SEIS") processes for Estech, Inc.'s, proposed phosphate mine and beneficiation plant in Manatee County, Florida.

Estech's mine, which lies in the heart of a regional drinking water supply for nearly a quarter million people, will produce waste waters that Estech admits will violate state water quality standards for surface and ground waters. Those polluted waste waters will contaminate Manatee County's water supply either by surface discharges through spillways, or by discharges to ground waters having a direct hydrologic nexus to navigable waters, or both. The effect of the Regional Administrator's decision is to abdicate and abandon all federal regulatory control over and responsibility for Estech's proposed pollutant discharges in violation of the Clean Water Act, 33 U.S.C. § 1251 et seq., and the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 et seq.

Manatee County's Substantial Interests

(1) This request for an evidentiary hearing is made on behalf of the citizens, residents, and visitors of Manatee County, Florida, by the Board of County Commissioners of Manatee County, whose mailing address is P.O. Box 1000, Bradenton, Florida 33508, and whose phone number is (813) 748-4501. Manatee County is a political subdivision of the State of Florida responsible for protecting the health, safety, and welfare of the public. As such, it represents all the citizens, residents, and visitors of the county, whose names and addresses are too numerous to list (see 40 C.F.R. § 124.74(c)(3)).

(2) Manatee County's responsibility to protect the public health, safety, and welfare creates in the County a substantial interest in protecting the County's environment and natural resources, including the quality of the public's drinking water supply. Estech proposes to conduct phosphate mining and beneficiation operations -- which will discharge mining wastes exceeding state pollution standards -- on 10,000 acres in northeastern Manatee County, approximately eighty-five percent of which lies in the watershed of the Lake Manatee Reservoir.

(3) The Lake Manatee Reservoir, which is owned by Manatee County and operated by the Manatee County Utilities Department, serves as the sole source of drinking water for the urbanized portions of unincorporated Manatee County, the City of Anna Maria, the City of Holmes Beach, the City of Bradenton Beach, the City of Palmetto, the Town of Longboat Key, and certain urbanized portions of the northern unincorporated areas of Sarasota County. The Lake Manatee Reservoir regularly serves as the sole source of drinking water for a population of approximately 250,000 people, and also supplements the drinking water supply of the City of Bradenton.

(4) The source of the waters in the Lake Manatee Reservoir and, therefore, the source of the potable water supply for the people of Manatee and Sarasota Counties, is the water flowing

from the rivers, streams, creeks, and other surface tributaries of the Lake Manatee watershed, in addition to the ground waters underlying the watershed, which significantly contribute to surface waters by a direct hydrologic nexus. The waters of the Lake Manatee Reservoir, and many of the surface tributaries connected therewith, constitute navigable waters.

(5) Because the Lake Manatee watershed and the underlying ground waters are the sole source of drinking water for the above-described people, Manatee County has a substantial interest in protecting its watershed and a major drinking water supply from pollution and other adverse, long-term impacts from phosphate mining.

(6) Pursuant to 40 C.F.R. § 124.74(c)(4), Manatee County states that upon motion of any party granted by the Presiding Officer, or upon order of the Presiding Officer sua sponte without cost or expense to any other party, the requester shall make available to appear and testify, the following: (i) the requester; (ii) all persons represented by the requester; and (iii) all officers, directors, employees, consultants, and agents of the requester and the persons represented by the requester.

Facts

(7) In connection with its proposed mining operations, Estech plans to construct and operate spillways (discharge points 002 and 003) to discharge excess flow from its operations into the East and North Forks of the Manatee River. On January 5, 1979, Estech applied to EPA for a National Pollutant Discharge Elimination System permit (NPDES # FL0036609) for its proposed mine. On February 18, 1980, EPA first requested water quality certification from the State of Florida pursuant to Section 401 of the Clean Water Act, 33 U.S.C. § 1341. EPA again requested certification from the State on April 14, 1980. On January 28, 1981, the Florida Department of Environmental Regulation (FDER) issued a letter of intent to deny Estech's application for state

water quality certification. FDER's proposed denial, along with other below-described permitting decisions, was challenged in consolidated proceedings before the Florida Division of Administrative Hearings (FDOAH).

(8) In addition to Estech's need for state water quality certification for the NPDES permit, Estech also submitted an application to FDER in May of 1980 for a permit to construct and operate water pollution discharge points 002 and 003. After initially intending to issue the state discharge permit, FDER changed its position and issued a letter of intent to deny the requested discharge permit on December 19, 1980.

(9) On February 18, 1981, Estech filed with FDER an "Alternative Petition and Request For Mixing Zones, Zones of Discharge, Permit Conditions, Site Specific Alternative Criteria or Variances" seeking relief mechanisms from state water quality standards it could not meet. FDER issued a letter of intent to deny Estech's alternative petition on March 30, 1981.

(10) Finally, Estech also requested a state permit to construct a 480-acre phosphate slime pond dam and a dredge and fill permit to prepare the slime pond area before construction. FDER issued letters of intent to issue these permits on July 3 and December 10, 1980, respectively.

(11) After all the above-described letters of intent were challenged by various parties, the several proceedings were consolidated and were heard by an FDOAH Hearing Officer in June and July of 1981. On March 15, 1982, the Hearing Officer issued a Recommended Order containing findings of fact and conclusions of law concerning the state certification and the several permits. The Hearing Officer expressly found that Estech's water-quality evidence was "inconclusive" and that the tests relied upon by Estech's experts "fail[ed] to demonstrate scientific accuracy"; the Hearing Officer therefore concluded that Estech had failed to provide reasonable assurance that its discharges would not unlawfully pollute the waters of the state.

See Hearing Officer's Findings of Fact nos. 45-46 and Conclusion of Law no. 8, FDOAH Recommended Order at 20-21, 24, attached hereto as Composite Exhibit A.

(12) In fact, during the course of the administrative proceedings, Estech itself predicted violations of state surface water quality standards for fluoride, total dissolved solids, and specific conductance, and violations of groundwater standards for fluoride. See "Estech's Proposed Findings of Fact, Conclusions of Law, and Recommended Order" (September 1981) at 43-44, 46, relevant portions attached hereto as Exhibit B.

(13) On May 28, 1982, the Secretary of FDER issued a Final Order on Estech's several permit applications. The FDER Final Order is attached as Composite Exhibit A. The Secretary expressly upheld and adopted the Hearing Officer's findings of fact that Estech's water quality data were inconclusive and failed to demonstrate scientific accuracy. See pages 2-3 of the FDER Final Order. Importantly, the Secretary also addressed the issue of the possibility of surface water discharges from Estech's mine, stating at page 4 of the Final Order:

The record clearly demonstrates that the proposed Estech mine could potentially result in a discharge of pollutants to waters of the state.

Having thus recognized the potential for surface water discharges, FDER thereby retained permitting jurisdiction, but nevertheless issued the discharge permits and water quality certification under Florida law.

(14) Finally, and equally important, the Secretary of FDER emphasized that there would be discharges of large quantities of mine waste waters into the ground waters and required Estech to obtain an FDER ground water permit. On page 9 of FDER's Final Order, the Secretary determined:

[T]he record in this case contains no reliable data with respect to the quality of the water being discharged into the surficial aquifer. Obviously this discharge is of great concern to the citizens of Manatee County since the proposed mine site is within the watershed of

Lake Manatee, a primary source of drinking water.

(15) On appeal to the Florida First District Court of Appeal, the court affirmed FDER's Final Order but modified it to require that Estech obtain a ground water permit prior to construction, as opposed to operation, of the mine. A petition for writ of certiorari, filed by Manasota-88 Inc., one of the parties to the proceedings, is pending before the Florida Supreme Court.

(16) Based on Estech's revised mining and reclamation plans, EPA decided to prepare and issue a supplemental environmental impact statement. EPA published a draft supplemental EIS (EPA 904/9-82-104) in December of 1982 and a public hearing was held in Manatee County on February 15, 1983.

(17) By letter dated February 28, 1983, Manatee County timely filed comments on the draft supplemental EIS for Estech's proposed phosphate mine. A copy of this comment letter is attached hereto as Exhibit C and is incorporated herein by reference. In the comment letter, Manatee County questioned EPA's proposal to issue an NPDES permit in spite of (and in fact ignoring) Estech's admitted surface water violations and FDER's determination that water quality standards would not be met. In addition, Manatee County challenged the adequacy of EPA's consideration of ground water impacts, pointing out that EPA was required by law to apply NPDES regulations for discharges into ground waters having a direct hydrologic nexus with and contributing to navigable waters.

(18) In late May of 1983, EPA telephoned the undersigned and requested the federal case law relied upon for Manatee County's contention that discharges to ground water having a direct hydrologic nexus with surface waters must be regulated under the Clean Water Act. Undersigned counsel telephoned this information to counsel for EPA and memorialized the information by letter dated June 7, 1983, a copy of which is attached as Exhibit D and incorporated herein by reference.

(19) By letter dated June 7, 1983, the Regional Administrator notified Estech that EPA was willing to "inactivate" the NPDES file and immediately halt all permit and EIS processing if Estech would withdraw its application and certify "that Estech no longer intends to discharge pollutants to waters of the United States." At the same time, however, the Regional Administrator paradoxically noted that if Estech did discharge, it would be fully liable under Section 309 of the Clean Water Act. Nevertheless, the Regional Administrator ignored and failed to mention the massive pollutant discharges to ground water that Manatee County had previously brought to EPA's attention. A copy of this letter is attached hereto as Exhibit E.

(20) By letter to EPA dated June 8, 1983, Estech withdrew its application and certified that it did not intend to discharge to waters of the United States. A copy is attached as Exhibit F.

(21) By letter to Estech dated June 17, 1983, EPA Region IV terminated the NPDES permitting process and inactivated the Estech file. A copy is attached as Exhibit G.

(22) As a result of EPA's decision to terminate the federal permitting process for Estech's water pollution discharges, EPA has unlawfully abdicated and abandoned its responsibilities to protect the environment and natural resources based solely on Estech's "intention" to have no surface water discharges from its proposed mine. In effect, by abandoning its regulatory duties and responsibilities, EPA has permitted Estech to conduct its proposed mining and beneficiation processes (and to make the above-described discharges) in the drinking water supply of a quarter million people; furthermore, EPA's de facto authorization will allow Estech to discharge pollutants with absolutely no effective federal control, conditions, limitations, supervision, or monitoring. EPA has ignored its responsibility and refuses to regulate discharges to ground waters having a direct hydrologic nexus with and contributing to navigable waters, and it has completely cut off all public participation in the federal permitting process.

Legal and Factual Questions at Issue

(23) A. Legal Question: Whether an "intent" to not discharge to surface waters is sufficient to cancel the requirement of obtaining an NPDES permit.

B. Factual Issue: There is no disputed factual issue here -- EPA requested a certification of no intent to discharge, and Estech certified the same.

C. Relevance: Because the Clean Water Act requires an NPDES permit for the "discharge of any pollutant," a permittee's intent is irrelevant.

(24) A. Legal Question: Whether the Clean Water Act requires application of NPDES permitting requirements for phosphate mines discharging polluted waste waters to ground waters having a direct hydrologic nexus with and contributing to navigable waters.

B. Factual Issue: Because Estech's mining operations will discharge approximately one million gallons of polluted waste water per day to ground waters, it must be determined whether the ground waters in and around Estech's property have a direct hydrologic nexus with and contribute to navigable waters.

C. Relevance: If the ground waters under Estech's mine have the proper hydrologic nexus to navigable waters, which they do, there is a likelihood that Estech's polluted waste waters will reach the surface waters of the Lake Manatee watershed through ground water contribution and thereby endanger the public health, safety, and welfare. Since the Clean Water Act covers such discharges, EPA must reactivate the NPDES permit and SEIS and apply appropriate federal regulations to Estech's ground water discharges.

(25) A. Legal Question: Whether the discharge of any pollutant to navigable waters requires an NPDES permit.

B. Factual Issue: Will Estech's mining and beneficiation operations result in the discharge of any pollutants, whether by surface or ground water discharge, and

will those discharges directly or indirectly reach navigable waters?

C. Relevance: The affirmative answer to these questions requires EPA to restart the NPDES permitting process and make a decision on whether or not to issue Estech an NPDES permit.

(26) A. Legal Question: Whether a phosphate mine with an admitted potential to discharge polluted waste waters to navigable waters requires an NPDES permit.

B. Factual Issue: Will there be potential or actual surface water discharges from Estech's mining operations?

C. Relevance: If a phosphate mine has the potential for surface waters discharges, and as here has two discharge points built expressly and solely for that purpose, EPA should not be allowed to abandon its federal regulatory responsibilities simply by arguing that such discharges are not as likely as with other mining operations.

(27) A. Legal Question: Whether the federal Clean Water Act authorizes EPA to abandon its responsibility to regulate Estech's pollutant discharges when the state has determined after full evidentiary hearings that state water quality standards would not be met and Estech has admitted that any discharges from its mine would violate state standards.

B. Factual Issue: Again, there is no disputed factual issue here. The State of Florida determined after full evidentiary hearings that any discharge from Estech's mine would violate state water quality standards, and Estech itself has predicted violations of several state standards.

C. Relevance: The relevance of this question lies in whether or not Congress intended to allow polluters to discharge admittedly violative waste waters simply because the permittee intends that there will be no discharge. In other words, where a potential for a surface water discharge definitely exists, can EPA waive its regulatory responsibilities on the basis that the

permittee does not intend to discharge its polluted waste waters?

(28) A. Legal Question: Whether the Clean Water Act authorizes the Regional Administrator (1) to ignore NPDES permitting requirements for a phosphate mine with potential surface water discharges and actual ground water discharges, both of which will reach navigable waters, and (2) to rely instead on after-the-fact enforcement of violations of the Act.

B. Factual Issue: In this case, while recognizing the potential for a surface water discharge, the Regional Administrator has abandoned EPA's responsibility to prevent pollution based on the hope that Estech will not discharge to surface waters; if he is wrong, the Regional Administrator apparently would then hope to be able to enforce the Clean Water Act after the fact and possibly to collect a fine.

C. Relevance: Congress intended that pollutant discharges not only be cleaned up, but also prevented wherever possible, and EPA has been charged with the responsibility of preventing violations of the water quality standards of the Clean Water Act.

(29) A. Legal Question: Whether NEPA requires preparation and completion of an EIS when the Regional Administrator decides not to regulate a major discharger of pollutants under the Clean Water Act.

B. Factual Issue: The Regional Administrator not only halted the NPDES permitting process, he also prevented completion of the EIS and failed to address and assess his instant decision in an EIS or environmental assessment.

C. Relevance: NEPA has been described as a public disclosure law that forces agencies to describe and assess impacts of their decision-making. Here, because the Regional Administrator refuses to prepare an EIS, environmental assessment, or other basis of decision, the public will have no way of knowing what factors contributed to the decision, what weight the Regional Administrator placed on each factor, and what alternatives were available.

(30) A. Legal Question: Whether NEPA requires preparation of an EIS to thoroughly characterize and analyze the impacts of discharging one million gallons per day of polluted waste waters to ground waters having a direct hydrologic nexus with and contributing to navigable waters constituting a regional drinking water supply.

B. Factual Issue: To date, EPA has not prepared a draft or final EIS that in any way adequately addresses the impacts from Estech's proposed massive discharge of pollutants to the ground waters of the Lake Manatee watershed.

C. Relevance: Since EPA has not yet characterized or analyzed the impacts from such discharges to Manatee County's ground waters, the Regional Administrator's decision to waive the NPDES requirements for Estech's water pollution discharges may not have been fully informed.

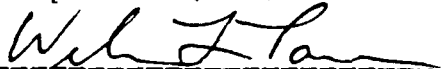
Specific Factual Areas To Be
Adjudicated and Estimated Hearing Time

(31) All the above factual issues must be adjudicated during the evidentiary hearing. It is estimated that the hearing time necessary for adjudication will be three days.

THEREFORE, Manatee County requests an evidentiary hearing to contest and seek a reconsideration of the Regional Administrator's decision to terminate the NPDES and EIS procedures for Estech's proposed pollutant discharges and to thereby abandon all effective federal control and regulation thereof.

Respectfully submitted,

PEEPLES, EARL, REYNOLDS
& BLANK, P.A.
Attorneys for Manatee County
One Biscayne Tower, Suite 3636
Two South Biscayne Boulevard
Miami, Florida 33131
Telephone: (305) 358-3000

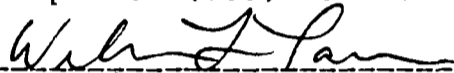


William F. Tarr

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that true and correct copies of the foregoing Request for Evidentiary Hearing (and exhibits) were mailed this 7th day of July, 1983, to the EPA Regional Hearing Clerk, 345 Courtland Street, N.E., Atlanta, Georgia 30365; Wade Hopping, Esquire, Hopping, Boyd, Green & Sams, Post Office Box 6526, Tallahassee, Florida 33201; and Robert L. Rhodes, Esquire, Holland & Knight, Post Office Drawer BW, Lakeland, Florida 33802.

PEEPLES, EARL, REYNOLDS
& BLANK, P.A.
Attorneys for Manatee County
One Biscayne Tower, Suite 3636
Two South Biscayne Boulevard
Miami, Florida 33131
Telephone: (305) 358-3000



William F. Tarr

BEFORE THE ENVIRONMENTAL PROTECTION AGENCY
UNITED STATES OF AMERICA REGION IV

MANASOTA-88, INC., and MANATEE
COUNTY SAVE OUR BAYS ASSOCIATION, INC.]
Petitioners,]
v.]
UNITED STATES ENVIRONMENTAL]
PROTECTION AGENCY,]
Respondent.]

REQUEST FOR HEARING

1. Pursuant to 33 USC §1342, 40 CFR §124.74 and 40 CFR §124.114, Petitioners, MANASOTA-88, INC. (MANASOTA-88) and MANATEE COUNTY SAVE OUR BAYS ASSOCIATION, INC. (SOBA) request Respondent, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) to grant them a hearing on EPA's proposed major agency action of withdrawing its proposed draft NPDES permit (Draft permit #FL0036609) and not requiring Estech, Inc. to obtain a National Pollution Discharge Elimination (NPDES) permit for its proposed new 10,394 acre phosphate mine with two point source discharge points into the Manatee River 12 miles upstream from Lake Manatee Reservoir, the sole potable water supply for approximately a quarter million residents in Manatee County and Sarasota County, Florida.

Parties

2. Petitioner, MANASOTA-88 and SOBA are not-for-profit public interest, environmental and public health protection organizations organized and incorporated under the laws of the State of Florida. The vast majority of the membership of petitioners rely exclusively upon the water supplies of Lake Manatee for their potable water. Estech, Inc.'s proposed Duette strip mine will directly and adversely affect the potable water supply in Lake Manatee of the vast majority of the members of MANASOTA-88 and SOBA.

Receipt of Notice

3. On or about June 10, 1983, Petitioners' undersigned legal counsel was notified by telephone by a local newspaper reporter that EPA had taken some type of action on Estech, Inc.'s Duette Mine NPDES application. On June 16, 1983, Petitioners' received from Manatee County a copy of a letter dated June 7, 1983, from Charles R. Jeter, EPA's Regional Administrator for Region IV, to ESTECH, INC. which advised Estech that its proposed new 10,394 acre Duette phosphate strip mine did not need an NPDES permit because it would not have a point source discharge of pollutants into waters of the United States.

4. As to date, neither MANASOTA-88 nor SOBA have received any communications from EPA on this matter despite the fact that Petitioners have supplied numerous oral and written comments to EPA concerning Estech's proposed Duette Mine.

Procedural Facts

5. On January 5, 1979, Estech, Inc. applied to EPA for an NPDES permit for its proposed 10,394 acre phosphate strip mine in the watershed of Lake Manatee, the sole potable water supply for approximately a quarter million residents and an untold number of tourist in Manatee and Sarasota Counties.

6. At EPA's direction, a third party consultant prepared a draft EIS and a final EIS pursuant to 33 USC §4332(2)(c) and 40 CFR Part 6.9 for the strip mine. In September of 1980, the Final EIS was issued with Draft NPDES Permit No. FL0036609.

7. During this same time period EPA requested the Florida Department of Environmental Regulation (DER) to certify whether the proposed Duette strip mine could meet the State of Florida's water quality standards. On June 21, 1981, to July 9, 1981, DER held an evidentiary hearing on

Estech, Inc.'s proposed project. MANASOTA-88 was a party to that proceeding but SOBA was not. After Estech, Inc. rested its case, it radically modified its permit application for a proposed 2 million gallon per day discharge facility to an alleged zero discharge facility. In its Final Order, DER held that Estech, Inc.'s water quality evidence was unreliable and lacked scientific accuracy. DER also held that Estech, Inc. had not adequately established the volume, quality or the effects of its ground water discharges and must therefore apply for and obtain a DER ground water discharge permit before it begins construction. Lastly, DER held that MANASOTA-88, MANATEE COUNTY and SARASOTA COUNTY had not been denied their due process rights by Estech, Inc.'s radical modification of its design after Estech, Inc. had rested its case. This ruling concerning MANASOTA-88's due process rights is currently on appeal to the Florida Supreme Court.

8. In the fall of 1982, EPA issued a notice that it was preparing a supplemental EIS for Estech, Inc.'s Duette strip mine because substantial changes had occurred since the preparation of the FEIS, namely (a) reclassification of the Manatee River to Class I - Potable Water Supply by DER and (b) Estech, Inc.'s proposed "zero discharge" proposal.

9. On January 7, 1983, EPA distributed a draft supplement EIS for comment. A public hearing on this draft supplement was held in Palmetto, Florida on February 15, 1983. Petitioners along with Manatee County, Sarasota County and numerous public interest organizations appeared at this hearing and made detailed comments and criticism of the draft supplement and its analysis of Estech, Inc.'s no discharge proposal. Written comments were also made to EPA by Petitioners.

10. On June 7, 1983, Charles R. Jeter, EPA's Regional Administrator for Region IV, wrote to John Oskam, vice president of Estech, Inc., advising him that Estech, Inc.,'s proposed Duette strip mine did not require a NPDES permit and suggested that Estech, Inc. withdraw its permit application.

11. On June 8, 1983, John Oskam wrote to Charles R. Jeter and advised him that in reliance upon Mr. Jeter's June 7, 1983, letter, Estech, Inc. was withdrawing its NPDES permit application for the proposed Duette strip mine.

New Discovered Evidence

12. Since Petitioners last communication with EPA concerning the proposed Duette strip mine, they have discovered that Estech, Inc.'s consultant utilized the wrong evaporation figures for the zero discharge calculations. Average evaporation figures for Lake Okeechobee, significantly south of Manatee County and with higher evaporation rates, were utilized rather than the lower evaporation rates developed for the Tampa Bay area and utilized by Estech, Inc.'s consultant in another case.

Disputed Issues of Law and Fact

13. Whether Estech, Inc's proposed Duette strip mine is really a "zero discharge" facility.

14. Whether Charles R. Jeter could make a conclusion concerning whether Estech, Inc.'s proposed no discharge system would really work prior to completion of a Final Supplemental EIS (See, 40 CFR §124.61; 40 CFR §§1502.5, 1508.11, 1508.18) and the highly controversial and substantial dispute concerning the environmental aspects of the proposed "no discharge" plan. Texas Committee on Natural Resources v. Bergland, 433 F.Supp 1235, 2348 (hn.8) (E.D. Tex. 1977); State of North Dakota v. Andrus, 483 F.Supp. 255, 260 (hn. 2,3) (D. ND 1980).

15. Whether the newly discovered evidence requires a reevaluation of EPA's decision not to require a NPDES permit for Estech, Inc.'s Duette strip mine.

16. Whether EPA has made a proper "record of decision" concerning Estech, Inc.'s proposed Duette strip mine. 40 CFR §1505.2.

17. Whether 33 USC §1251 and 33 USC §§1341 and 1342 require EPA to issue NPDES permits for proposed "zero discharge" facilities which will have point source discharge structures constructed for foreseeable use. United States v. Earth Sciences, Inc., 399 F.2d 368, 374 (10th Cir. 1979); SED, Inc. v. City of Dayton, 519 F.Supp 979, 989 (hn. 6,7) (SD Ohio 1981).

18. Whether the EPA does in fact require NPDES permits for "zero discharge" public waste water systems and other types of zero discharge facilities.

19. Whether EPA's policy of not requiring NPDES permits for alleged "zero discharge" facilities is major federal action which requires preparation of a separate EIS.

20. Whether an NPDES permit is required for discharges to ground water which have a hydrologic nexus to surface waters. Kentucky v. Train, 9 ERC 1280, 1282 (ED Ky 1976); O'Leary v. Moyer's Land Fill, Inc., 11 ELR 21006 (ED Pa. 1981).

21. Whether Estech, Inc.'s proposed Duette strip mine will have a discharge to ground waters with a hydrologic nexus to surface waters.

22. Whether Estech, Inc.'s proposed extensive impoundment areas will cause violations of state water quality standards by reducing flow into the Manatee River.

23. Whether EPA is mandated by 33 USC §1341 to require an NPDES permit for Estech, Inc.'s Duette strip mine since the DER water quality certification expressly held that such a permit was necessary to ensure compliance with state water quality standards.

24. Whether Estech, Inc. is equitably estopped from arguing that it does not need an NPDES permit since it filed written exceptions with DER arguing that the state hearing officer erred when she recommended that Estech, Inc. did not need an NPDES.

WHEREFORE, Petitioners respectfully request that

(a) EPA grant them a formal evidentiary hearing pursuant to 40 CFR §124.74 under the procedures set forth in Subpart F; and

(b) EPA require Estech, Inc. to prove its entitlement to construct and operate the proposed Duette strip mine.

Thomas W Reese
Of Counsel for Petitioners

THOMAS W. REESE
123 Eighth Street North
St. Petersburg, Florida 33701
(813) 822-4084

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the above and foregoing has been forwarded by U.S. Mail to Charles R. Jeter, Regional Administrator, U.S. EPA, Region IV, 345 Courtland Street, Atlanta, Georgia, 30365 on this 13th day of July, 1983.

Thomas W Reese

Estech, Inc.

JOHN OSKAM
Vice President Mining

PHOSPHATE MINING

AUG 16 1982

COORDINATOR

August 16, 1982

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
Post Office Box 1000
Bradenton, Florida 33506

Re: Operating Permit for Duette Mine

Dear Mr. Eckenrod:

Enclosed are 15 copies of Estech's application for an operating permit for its Duette Mine. With this letter, please be informed one copy is also being forwarded to the Manatee County Planning Department. Also enclosed is a check for \$25,000 in payment of the filing fee specified by Ordinance 75-4. Please acknowledge receipt of the application and filing fee by stamping a copy of this transmittal letter and signing the attached receipt.

I am sure you are aware that the question of what ordinances apply to our project is the subject of a circuit court action between Estech and the County. By filing the enclosed application, we do not intend for either Estech or the County to waive or prejudice any of their rights in that lawsuit.

Very truly yours,

ESTECH, INC.



John Oskam
Vice President Mining

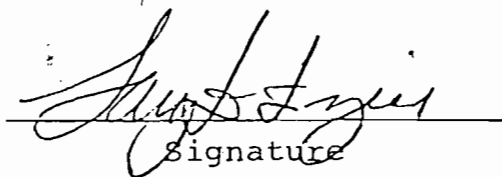
lrd
Enclosures

cc: Mr. L. Fraser

EXHIBIT K

RECORD OF FILING

I hereby acknowledge receipt of 1 copy of Estech's
Operating Permit Application for its Duette Mine.


Signature

8/16/82 1.47.43
Date Time

RECORD OF FILING

I hereby acknowledge receipt of 15 copies of Estech's Operating Permit Application and filing fee for its Duette Mine.

Richard M. Eckman

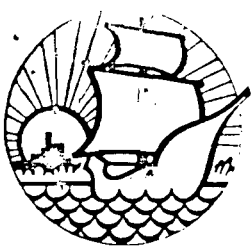
Signature

8/16/82

Date

1:32 pm

Time



MANATEE COUNTY GOVERNMENT

RECEIVED SEP 15 1982

September 15, 1982

HAND DELIVERED

Mr. John Oskam
Vice President of Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, Florida 33507

Re: Completeness Review of Operating Permit Application

Dear Mr. Oskam:

This constitutes notice of our determination pursuant to Manatee County Ordinance 81-22, Section IV.A.1., that for the reasons set forth below, the referenced application is not complete. The 90-day compliance review period specified in Section IV.A.2. of the Ordinance therefore cannot commence at this time. Nevertheless, in order to minimize delay and expedite consideration of the application, we will proceed to review and discuss the information already submitted.

Based on the County's review of the Operating Permit application it appears that the proposed mining activities will result in substantial adverse environmental impacts. It is necessary for Estech to submit additional information before other impacts of the proposed activities can be evaluated. In preparing the complete Operating Permit application, please be mindful that Estech is required to affirmatively demonstrate that it has met all requirements for Operating Permits, and that the proposed mining activities are consistent with the purposes of the Ordinance 81-22 and with the approved Master Mining Plan and other necessary development approvals.

The following constitute omissions of items required as part of an operating permit application:

1. SECTION III.B.2. Please submit five (5) copies of all other state, federal and regional applications, and approved permits excluding the D.R.I. to the Phosphate Mining Coordinator. Do not fail to include the FDER groundwater discharge permit application and the most recent N.P.D.E.S. permit application.

EXHIBIT L

PHOSPHATE MINING COORDINATOR • 223 — 6th Avenue East, Bradenton, Florida (813) 748-4501 Ext. 380

P. O. Box 1000, Bradenton, Florida 33506

2. SECTION III.B.3.

- a. Engineering design drawings need to be provided for the following mining activities and facilities:
- o Mining cut plan
 - o Pit control car
 - o Pit pump
 - o Booster pump
 - o Matrix pipeline
 - o Mine water pumps
 - o Pit drainage pumps
 - o Seal water pumps
 - o Power systems to operate pumps & dragline
 - o Sewage treatment plant
 - o Main office building
 - o Maintenance shop and office building
 - o Guard house complex
 - o Warehouse building
 - o Locomotive and heavy equipment shop
 - o Vehicle service shop
 - o Chemical lab, metallurgical lab and pilot plant building
 - o Lube storage, painter, and carpenter shop
 - o Fire pump building
 - o Main switchgear building
 - o Track scale and truck scale
 - o Vehicle service facilities
 - o Railroad
 - o Roadways including plant site and Duette Road
 - o Recycle water preparation facility
 - o Package boiler
 - o Electrical distribution facilities
 - o Stream crossings
 - o All structures and equipment necessary to implement the "zero discharge" water management system
 - o Plant site stormwater management facilities
- b. Engineering specifications must be submitted as part of the Operating Permit application for the following facilities:
- o Sewage treatment plant
 - o Track scale and truck scale
 - o Railroad
 - o Roadways (on site and off site)
 - o Package boiler
 - o Stream crossings
 - o All structure and equipment necessary to implement the "zero discharge" water management system
 - o All facilities and equipment necessary to implement the Spill Notification, Containment and Safety Plan (See Item No. 3)

- o All surface water impoundments including dams and dikes for above-ground impoundments
 - o All air pollution control equipment
 - o Recycle water preparation facility
 - o All production and domestic water wells
 - o Pit control car
 - o Pit pump
 - o Booster pump
 - o Matrix pipeline
 - o Reagent storage facilities
 - o Plant site stormwater management facilities and any other equipment or facilities for controlling non-point sources of pollution
- c. Specifications for the remaining buildings and facilities should be submitted to the Phosphate Mining Coordinator and the Planning and Development Department at the time building permits are applied for.
3. SECTION III.B.5. As indicated in the County's comments on Section III.B.3., plans and specifications for all equipment and facilities which are necessary to implement the Spill Notification, Containment, and Safety Plan should be provided with the Operating Permit application.
4. SECTION III.B.6. The separately audited financial statement being prepared for Estech, Inc. must be certified and submitted with the application.

Provide certificate of insurance for environmental impairments liability coverage in the amount specified in Section III.C.16.b.iii. to become effective upon commencement of mining activities as defined in Ordinance 81-22.

To meet the requirements of Sections III.C.16.c and III.C.16.d. provide either the bonds themselves or a letter of intent to issue a surety and/or reclamation bond in the prescribed amounts and in a specifically identified form. Said bond(s) should become effective before or upon commencement of mining activities.

No operating permit may be issued until these and other required items have been submitted. Note particularly that an operating permit may not be issued until all necessary federal and state development approvals have been secured. Also, copies of all applications to and permits from federal and state agencies must be submitted before the application can be considered complete and before the 90-day processing period can commence.

The following constitutes additional information which is required to supplement the information submitted on August 16, 1982. Under Ordinance 81-22, Section IV.A.1., the additional information must be provided within 30 days, except that additional time may be allowed if Estech demonstrates that such extension is necessary to prepare the requested information.

5. SECTION II.B.1. The names of persons or entities having any interest in the mining activities or ownership of the land have not been fully identified in either the Master Mining Plan or Operating Permit application.
6. SECTION II.B.2. Information on the applicant's agent as provided in the Master Mining Plan is not current.
7. SECTION II.B.3. The legal description of lands under option to the applicant has not been provided in either the Master Mining Plan or Operating Permit application.
8. SECTION II.B.4. Estimated yearly production of ore, product, and by-products for the life of the mine have not been provided in the Master Mining Plan or Operating Permit application. Estimates must include the amount of ore and/or product to be imported from other mine locations and the associated by-products generated.

The reduction from setback requirements which the applicant intends to request over the life of the mine has not been provided. Presumably, the proposed mining plan and the impacts of the mining activities are based upon certain reductions in the setback requirements. If that is the case, the assumed setback reductions should be identified in the application. The impacts of mining activities should also be forecast for the case of no reduction in setback requirements.

9. SECTION II.B.5. The description and interpretation of the geologic nature of the confining bed(s) should be provided in sufficient detail to support any conclusions of the applicant as to leakage between water producing zones. The geologic structure and physical properties of the surficial aquifer are also necessary to evaluate the potential impacts of the mining and reclamation activities on the ground water hydrology. Salient features of the confining bed(s) include but are not limited to the variability in transmissivity of the various information, the existence of any fissures, dólins, karsts or other geologic features serving to directly connect the surficial aquifer to lower water bearing formations.

Maps delineating the potentiometric surface of the upper Floridan aquifer and the ground water table over the site should be provided.

10. SECTION II.B.6. Indicate how much of each reagent is expected to be added at each step of the beneficiation process. Also provide more detailed descriptions of the chemical composition of the amines, fatty acids, silicate modifier, and flocculant utilized in the clay thickeners.

Characterize the quantity and chemical composition of each waste water stream as it exits the beneficiation process or water treatment process and enters the recirculation system or waste disposal site.

11. SECTION II.B.8. The locations and dimensions of all drainage swales and ditches intended to convey process and/or storm water within the water recirculation system should be provided. Also indicate the normal and maximum expected operating levels in those structures.
12. SECTION II.B.9. An inventory of existing wells on the site has not been provided nor has any of the other information required under this section.
13. SECTION II.B.10. The water balance figures presented in the application presumably are based on the highest expected rainfall sequence. Water balance figures for the lowest and average expected rainfall sequence must also be provided. In addition, an explanation of computational methods and assumptions must be provided.
14. SECTION II.B.11. The description of surface water hydrology impacts given in the Master Mining Plan needs to be updated to reflect the "zero discharge" water management plan. The extent to which the proposed mine will affect peak and average stream discharge rates must also be reassessed. The assessment should consider (a) reduction in surface runoff due to rainfall catchment within active mining areas; (b) reduction in stream baseflow due to altered properties of surficial aquifer adjacent to stream channels; (c) alteration in the pattern of post-reclamation surface runoff due to low permeability of sand/clay mix and (d) any other factors which would measurably alter the quantity or pattern of stream flow.

Impacts of discharges upon surface and ground water quality within and off the site must be addressed and quantified.

Impacts on ground water hydrology must also be assessed considering such factors as: (a) changes in the rate of natural recharge to the Floridan aquifer and (b) reduction in the regional flow through the surficial aquifer due to the low permeability of sand/clay mix.

15. SECTION II.B.12. None of the information required under this provision of the Ordinance has been provided in the Operating Permit application. Discharge quantity information which was provided in the Master Mining Plan is no longer applicable due to changes in the water management plan.

Information on the physical, chemical or radiological properties of the liquid and solid wastes which has been provided in the Master Mining Plan or the Operating Permit application is insufficient. All liquid wastes should be characterized including but not limited to any process water, domestic wastewater, brine from the reverse osmosis treatment plant, blowdown from the package boiler, and discharge water from the sulfur dioxide and particulate scrubbers.

Characterization of solid wastes should address any naturally occurring or artificial contaminants associated with the sand tailings, overburden, and waste clays. The description of physical properties of the solid wastes should include those properties which would affect the rate of dewatering and the degree of consolidation achievable.

16. SECTION II.B.13. Five (5) copies of all permits applications and approvals from the Southwest Florida Water Management District should be provided including but not limited to the Consumptive Use Permit and the Management and Storage of surface waters permit.
17. SECTION II.B.14. The emission estimates provided in Table II-K of the Master Mining Plan must be updated to reflect the most recent estimates. Emission rates of fluoride, Radium 226, and gross alpha radiation should also be included along with any parameters for which the State of Florida has promulgated standards. The applicant must also explain a basis for any estimates for non-point or fugitive emissions. All emission estimates must be certified by a registered professional engineer.
18. SECTION II.B.15. Are areas which have been cleared and grubbed prior to mining considered by the applicant to be "active mining areas"? If not, how will non-point source runoff from these areas be controlled?

The applicant shall further describe how water pollution from non-point sources will be controlled in the post-reclamation condition. This shall include an assessment by the applicant of how runoff from reclaimed areas will affect the quality of receiving waters.

The applicant should indicate the locations at which any runoff from sand tailings disposal areas and the plant site enters the water re-circulation system.

In designing the non-point source control program, the applicant should be aware of the need to apply best management practices and best possible technology for controlling water pollution within the watershed.

19. SECTION II.B.16. Certain inconsistencies exist between the environmental monitoring programs described in the Master Mining Plan and the Operating Permit application. For example the Master Mining Plan indicated that surface water quality measurements would be conducted at monthly intervals whereas quarterly sampling intervals are proposed in the Operating Permit Application. The applicant should clearly indicate that the program as described in the Operating Permit application represents the proposed program.
20. SECTION II.B.17. With the exception of locating the plant entrance, road and rail lines on the site, no elements of the transportation analysis as required by this section have been addressed in either

the Master Mining Plan or Operating Permit application. The applicant should not fail to address the impacts of truck shipment of products and raw materials.

21. SECTION II.B.18. The following features of the mine and property need to be graphically shown at a scale of one inch equals 400 feet:
- o Designated Special Treatment Overlay Districts.
 - o Permanent ditches, i.e. those ditches to be used through the life of the Operating Permit.
 - o The limits of existing wetlands with the Master Mining Plan area.
 - o Topographic contours at 2 foot intervals before, during and after mining.
 - o An updated depiction of the final land use for the entire site upon completion of reclamation.
 - o Power line corridors and accompanying service roads if any.
22. SECTION II.B.19. An updated Reclamation Plan needs to be submitted with the Operating Permit application which consolidates various elements of the reclamation plan scattered through the Master Mining Plan, the DRI-ADA, the DRI addendum, and the Environmental Impact Statement. The updated Reclamation Plan should reflect the various changes imposed by regulating agencies and changes made voluntarily by Estech.
- The updated plan should clearly show that the reclamation standards provided in the Mining and Reclamation Ordinance for agricultural lands, South Florida Flatwoods, wetlands, lakes and other water bodies, as well as the revegetation criteria will be met.
- All disturbed lands as defined in the Mining and Reclamation Ordinance should also be clearly shown in the updated plan.
23. SECTION II.B.20. Engineering certification of the revisions to the Master Mining Plan must be provided.
24. SECTION III.B.7. In addition to the previously specified requirements for Operating Permit applications, the applicant is required to submit any additional information necessary to demonstrate compliance with the Operating Permit criteria of the Ordinance. While it is not determinable whether all of the necessary information and documentation has been provided until the compliance review is complete, it is apparent at this time that some essential information and documentation is lacking. For example, virtually no documentation is provided to show that the proposed mining and reclamation activities are consistent with best management practices as defined in the Mining and Reclamation Ordinance.

A variance to the setback requirements of the Ordinance has been requested in the application. Section III.C.2.d. of the Ordinance prescribes various procedures for obtaining reductions from the

setback requirement. If Estech chooses to pursue the variance procedure as described in Section III.C.2.d.iii, it must affirmatively demonstrate that any applicable setback requirement is unreasonable under the circumstances and would create undue hardship, and that a lesser requirement would not adversely affect the public health, safety, and welfare. Variances to setbacks established by regulations other than Ordinance 81-22, such as the Manatee County Zoning Ordinance, should be requested according to applicable procedures.

The form of any setback agreements Estech proposes to enter with adjoining landowners should be submitted to the Phosphate Mining Coordinator for approval prior to issuance of the Operating Permit.

The observed high gross alpha radiation levels in the recharge well on the Duette Mine site raises additional questions regarding the distribution and mobility of radionuclides in the overburden as well as the matrix. This problem must be addressed in the Operating Permit application in demonstrating compliance with Sections III.C.4.a. and III.C.4.c. of the Ordinance.

In preparing the updated Reclamation Plan for the mine the applicant should be cognizant of the need to demonstrate compliance of the requirements of Section III.C.5. of the Ordinance.

Section III.C.17. of the Mining and Reclamation Ordinance requires that mining activities conducted within the Lake Manatee watershed be conducted with the best possible technology (See Section I.D.4. of the Ordinance for definition of BPT). The Ordinance does not limit the applicant to any particular format for demonstrating BPT. A reasonable procedure for Estech to follow in demonstrating BPT would be first to compare the proposed technology with other technologies being used for strip mining in general and in areas of comparable sensitivity if possible. The comparison of technologies could then be followed by an explanation of the proposed technology including the factual bases for determinations regarding technological and economic feasibility.

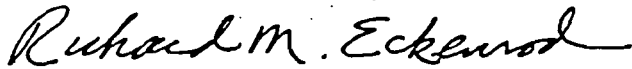
Among the purposes of the Ordinance is protection of the health, safety and welfare of the citizens of Manatee County. In demonstrating that the proposed mine is consistent with protecting human health, do not fail to thoroughly evaluate the potential effects of enhanced radiation levels which may result from the proposed mining activities.

Any information which Estech wishes to be considered as part of its Operating Permit application, such as sections of the DRI-ADA or EIS, must be submitted to the County. Make certain there are no inconsistencies or ambiguities in information from different source documents which might be included as part of the application.

Mr. John Oskam
Page Nine
September 15, 1982

Please address any questions you have regarding the subject application to the undersigned.

Sincerely,



Richard M. Eckenrod
Phosphate Mining -Coordinator

RME:hmv

xc: Board of County Commissioners
County Staff
Mary Greenwood, Esq.
John R. Blue, Esq.

JOHN OSKAM
Vice President Mining

September 27, 1982

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
P. O. Box 1000
Bradenton, Florida 33506

Dear Mr. Eckenrod:

This acknowledges receipt of your letter dated September 15, 1982, in which you advised us of the additional information necessary to make our application for an operating permit complete under Ordinance 81-22.

In reviewing that letter, it appears that the level of detail you have requested in many areas is greater than what we had originally understood would be required to make a complete operating permit application. Nevertheless, we have concluded that it is possible to furnish the additional information requested, although an extension of time will be necessary to prepare that information and assemble it in the proper format. Accordingly, we hereby request an extension of time to and including December 15, 1982 in which to respond to your information request.

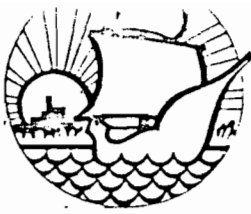
As you know, the legal issue of whether our operating permit application is subject to Ordinance 81-22 is the subject of an on-going lawsuit between Estech and the County. By requesting an extension of time to submit additional information in support of our application, we do not intend for either Estech or the County to waive or prejudice any of their rights in that lawsuit.

Sincerely,

ESTECH, INC.

John Oskam
Vice President Mining

lrd

MANATEE COUNTY
GOVERNMENT

October 15, 1982

Mr. John Oskam
Vice President Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, Florida 33507

Re: Estech Duette Mine
Operating Permit Application

Dear Mr. Oskam:

Your September 27, 1982 request for additional time to respond to the September 15, 1982 letter from this office is hereby granted subject to the following change in the due date. The additional information will be due no later than January 3, 1983 at which time the County will commence the compliance review of the subject application.

Sincerely,

Richard M. Eckenrod
Phosphate Mining Coordinator

RME:jk

xc: Board of County Commissioners
Keith F. Roberts, Esq.,
Assistant County Attorney

Estech, Inc.

KJM

December 17, 1982

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
Post Office Box 1000
Bradenton, Florida 33506

Re: Operating Permit Application
Duette Mine

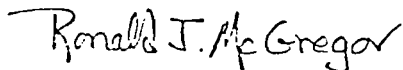
Dear Mr. Eckenrod:

In your letter of October 15, 1982, you extended the deadline for submittal of additional information in support of our application for an operating permit until January 3, 1983. We have been working diligently to compile the additional information that you requested. However, we have found that more time is needed in order to comprehensively reply to your request. In particular, we would not be able to fulfill your request to include a copy of the ground water permit application until sometime after January 3. Therefore, I hereby request that the submittal deadline be extended until March 30 1983. We would make every effort to submit the additional information before this date, so your review of the application can proceed in a timely fashion.

As you know, the legal issue of whether our operating permit application is governed by Ordinance 81-22 is the subject of an on-going lawsuit between Estech and the County. By requesting a further extension of time to submit additional information, we do not intend for either Estech or the County to waive or prejudice any of their rights in that lawsuit.

Sincerely,

ESTECH, INC.



Ronald J. McGregor
Environmental Engineer

RJM/nj

xc: J. Oskam
File 3.6.4.2

Estech, Inc.

December 22, 1982

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
P. O. Box 1000
Bradenton, Florida 33506

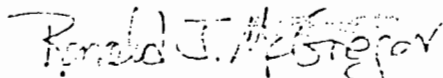
Dear Mr. Eckenrod:

In my letter to you on December 17, 1982, a typographical error was made regarding the deadline extension date. Please be advised that the March 3 date should have been March 30, 1983.

Please let me know if you have any questions.

Very truly yours,

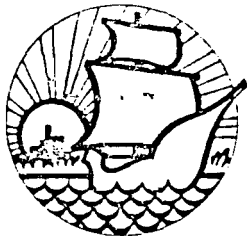
ESTECH, INC.



Ronald J. McGregor
Environmental Engineer

RJM/nj

xc: J. Oskam
File 3.6.4.2



MANATEE COUNTY GOVERNMENT

ATZ December ³⁰~~28~~, 1982

Mr. Ronald J. McGregor
Environmental Engineer
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, Florida 33507

RE: Estech Duette Mine
Operating Permit Application

Dear Mr. McGregor:

Your December 17, 1982 request for additional time to respond to the September 15, 1982 letter from the Phosphate Mining Coordinator is hereby granted. The additional information will be due no later than March 30, 1983 at which time the County will commence the compliance review of the subject application.

Sincerely,

A. V. Ellis

for Robert F. Fernandez
County Administrator

xc: Board of County Commissioners
Keith F. Roberts, Esq.
Richard M. Eckenrod
John Oskam, Estech, Inc.

Best Available CopyJOHN OSKAM
Vice President Mining

March 28, 1983

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
Post Office Box 1000
Bradenton, Florida 33506

RE: Operating Permit Application - Duette Mine

Dear Mr. Eckenrod:

We herewith submit the additional information requested by you in your letter of September 15, 1982. This information together with our original submittals will be sufficient for a full review of our application and approval of an Operating Permit for the Duette Mine. As you are aware, we take the position that our operating permit application is subject only to the requirements of Section VI (16) of the Manatee County Zoning Ordinance effective November, 1979. However, in an effort to secure an expeditious review of our application, we have submitted all information required in connection with an Operating Permit Application under the Manatee County Mining Ordinance (Ordinance 81-22). We have gone to great expense compiling the requested information to satisfy the County's concern regarding our mining operation and to prove that we can and will comply with all of the requirements of the 1979 zoning ordinance, as well as the 1981 mining ordinance.

In order to provide the additional information you requested, we had to undertake more specific and comprehensive engineering analyses than had been anticipated or required of previously approved phosphate mining operations. As a result of the detailed engineering, refinements in our operational plans have been required, and they are specified in the "Additional Information" and "Refined Information" submitted herewith.

In response to your request for a "best possible technology" analysis, we have submitted a report entitled "Determination of Best Possible Technology for Duette Mine" compiled by Jacobs Engineering. The format utilized for this report is that which was approved in the City of Bradenton/Ward Lake

continued....

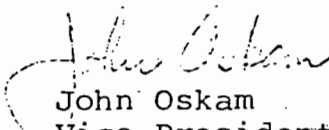
Mr. Richard M. Eckenrod
March 28, 1983
Page Two

operating permit proceedings. We believe the Jacobs report, together with other documentation submitted to the County, including the EPA Environmental Impact Statement, demonstrates its use of best possible technology in our mining operations.

We understand that this application will be reviewed by various County Departments. We would appreciate receiving, as soon as possible, a list of these County Departments, as well as the names of the individuals in each department who will be coordinating the review.

Sincerely yours,

ESTECH, INC.

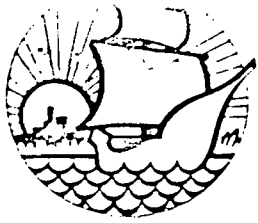

John Oskam
Vice President Mining

JO/nj

xc: R. J. McGregor

Enclosures:

15 sets of "Additional" and
"Refined" Information



MANATEE COUNTY GOVERNMENT

HAND-DELIVERED

Rec. 4-13-83 TRJA

April 13, 1983

Mr. John Oskam
Vice President Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, Florida 33507

Re: Operating Permit Application

Dear Mr. Oskam:

We are in receipt of the additional materials submitted in connection with Estech's Operating Permit application for the Duette Mine. Those materials were submitted on March 29, 1983, following Estech's two requests for extension to March 30, 1983. Estech's mining activities at the Duette Mine are subject to the Manatee County Mining and Reclamation Ordinance No. 81-22.

As you know, the Manatee County Operating Permit has always been the final approval necessary before mining and reclamation activities can occur in the County. Among other things, this ensures that Manatee County will have a complete picture of the mine and that the mining plan is consistent with plans approved by other agencies. Therefore, all other necessary permits must be submitted along with the Operating Permit application. You have not furnished copies of all necessary permits from federal and state agencies, which are required contents for all Operating Permit applications under Section III.B.2. of the Manatee County Mining and Reclamation Ordinance. This requirement was clearly noted in Manatee County's letter to you dated September 15, 1982. Specifically, Estech has not submitted the groundwater permit required from the Department of Environmental Regulation, the approved Conceptual Reclamation Plan from the Department of Natural Resources, or the NPDES permit required from EPA. Therefore, the 90-day compliance review period in Section IV.A.2. of the Ordinance cannot commence at this time.

Manatee County will, however, internally review and discuss the submitted materials to avoid unnecessary delay and expedite consideration of the application. Following Estech's submission of all

EXHIBIT C

PHOSPHATE MINING COORDINATOR • (813) 748-4501 Ext. 380

P.O. Box 1000, Bradenton, Florida 33506

the required contents enumerated in Section III.B. of the Ordinance, including the NPDES, conceptual reclamation, and groundwater permits, Manatee County will issue a final completeness determination within 15 days.

As part of this interim, internal review and to avoid further delay, we will advise you of certain additional information that was still not furnished with your most recent submission or that might otherwise come to light during the review. In the meantime, you may want to address at least the following issues:

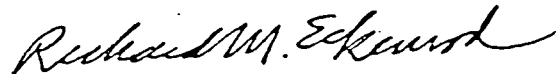
1. Final engineering design drawings and specifications for the following facilities and equipment:
 - o The railroad spur connecting the mine site with existing trackage;
 - o All water recirculation facilities, reverse osmosis facility and related recycle water preparation facilities;
 - o All drainage and non-point source control facilities external to the water recirculation system;
 - o Air pollution control facilities for the carbon regeneration kiln.
2. Provide a plan detailing the proposed method of disposal of excess water at the end of the ore extraction phase of mining.
3. The engineering data, computations, and assumptions which support each of the conclusions regarding ground and surface water quantity and quality impacts have not been presented in sufficient detail to permit verification of the conclusion. The assessment of water quality and quantity impacts should address the impacts on affected aquifers and surface waterbodies.
4. Describe the disruption of normal traffic movement resulting from rail transportation. Describe truck transportation that will occur during railroad emergency conditions, and the resulting impacts.

Mr. John Oskam
April 13, 1983
Page Three

5. Provide plans demonstrating compliance with the reclamation requirements specified in Manatee County Ordinance No. 81-22.

We appreciate the effort Estech has made in compiling the submitted materials. Please feel free to notify me if you have any questions.

Sincerely,



Richard M. Eckenrod
Phosphate Mining Coordinator

RME:jk

xc: Board of County Commissioners
Bob Fernandez, County Administrator
John R. Blue, Esquire

April 27, 1983

Mr. Richard M. Eckenrod
Phosphate Mining Coordinator
Manatee County
P. O. Box 1000
Bradenton, Florida 33507

RE: Operating Permit Application - Duette Mine

Dear Mr. Eckenrod:

We have reviewed your letter of April 13, 1983 regarding the completeness of our operating permit application. We are very pleased that Manatee County will review the additional information that we submitted in order to avoid unnecessary delay and to expedite consideration of the application. Our project personnel are ready and able to answer any questions that may arise and they would be pleased to meet with you to further discuss our plans for mining.

We believe that you can reduce delay even further if you would reconsider your stance that you must wait for the NPDES permit, ground water permit and conceptual reclamation plan to be approved before our application can be judged complete. Your interpretation of the ordinance in this regard contradicts its legislative history. As shown in the attached letter by Mr. Greene to Mr. Oskam, the ordinance was specifically revised in order to allow an application to be judged complete and be processed prior to receipt of all permits.

In your letter, you stated that we are subject to the Manatee County Mining and Reclamation Ordinance No. 81-22. Although we continue to provide you with the information required under this ordinance, and to demonstrate our compliance with its performance standards, we still contend that we are properly regulated under Section VI(16) of the Manatee County Zoning Ordinance, effective November 1979.

continued....

EXHIBIT P

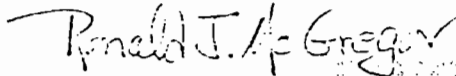
Mr. Richard M. Eckenrod
April 27, 1983
Page Two

Our goal is to construct and operate the Duette Mine in an environmentally sound and humanly safe manner. Estech is dedicated to this goal and to the full compliance with all applicable laws and regulations. We continue to believe that Manatee County can fulfill its responsibility to protect the public health, safety and welfare while permitting the operation of the Duette Mine.

Please do not hesitate to contact me with your questions or concerns.

Very truly yours,

ESTECH, INC.



Ronald J. McGregor
Environmental Engineer

RJM/nj

xc: Board of Commissioners, Manatee County
J. Oskam
J. Blue
B. Greene
W. Turner

File 3.6.4.2

Best Available Copy

JOHN OSKAM
Vice President Mining

August 30, 1983

Mr. Richard Eckenrod
Phosphate Mining Coordinator
Manatee County
Post Office Box 1000
Bradenton, Florida 33506

Re: Operating Permit Application - Duette Mine

Dear Mr. Eckenrod:

We herewith submit additional information requested by you in your letter of April 13, 1983. This information includes engineering specifications and design drawings for certain aspects of the mining operation. These engineering specifications and design drawings are a result of more detailed engineering analysis and are in conformance with requirements of Manatee County's Ordinances. (This information far exceeds that required of any prior permittee under either ordinance.) The refined information provided for various aspects of the mining operation replaces that previously submitted and modifies the application accordingly. Construction Plans will be submitted in connection with the application for building permits prior to construction of any facilities.

As you know, we are in the process of obtaining a DER Groundwater Permit and DNR Conceptual Reclamation Plan Approval. We would suggest that if Manatee County finds our Operating Permit Application approvable except for the above permits, then the Operating Permit could be issued conditioned upon subsequent approval of the Groundwater Permit from DER and the DNR Conceptual Reclamation Plan Approval. This procedure would be similar to that followed in the recent City of Bradenton/Ward Lake Operating Permit proceeding.

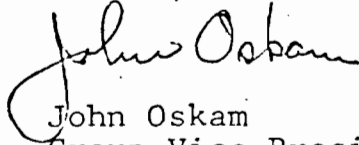
We are submitting this information in order to answer the most recent questions raised by the County and its consultants and to expedite review of Estech's Operating Permit Application. By submitting this additional information, we are not waiving any contention

Mr. Richard Eckenrod
August 30, 1983
Page two

that our Operating Permit Application is subject only to the requirements of Section VI, (16) of the Manatee County Zoning Ordinance effective November, 1979.

Yours truly,

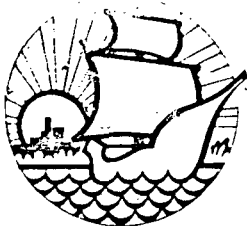
ESTECH, INC.



John Oskam
Group Vice President,
Phosphate

JO:nj

Enclosures



MANATEE COUNTY GOVERNMENT

September 23, 1983

Mr. John Oskam
Vice President Mining
Estech, Inc.
First Commercial Bank Building
410 Cortez Road West
Bradenton, FL 33507

RE: Duette Mine
Operating Permit Application

DATE: 9-26-83
FILE NO: 3668-76
FILE IN: _____
REF: _____
ROUTE TO: _____
RETURN TO: _____

Dear Mr. Oskam:

We have reviewed the information submitted by Estech, Inc. on August 30, 1983, for its application for an operating permit to construct and operate a 10,000 acre phosphate mine in eastern Manatee County. The information is inadequate to render your application complete under Manatee County Mining and Reclamation Ordinance 81-22, and it does not satisfactorily respond to our letter of April 13, 1983. For example, the following fundamental and significant issues have yet to be adequately addressed in the application, despite previous requests for the information:

1. Design Drawings and Specifications

a. Railroad facilities.

The requirement that engineering design drawings and specifications for offsite railroad facilities be provided with the Operating Permit application is necessary to ensure that the proposed mode of product transportation - railroad - will be implemented in a manner which minimizes interruption of normal traffic flow; safeguards the public and environment from potential accidents and nuisances associated with rail transport; is compatible with adjacent land uses;

and which is generally consistent with the public interest. Therefore, the requested engineering design drawings and specifications for the offsite railroad must be provided for the Operating Permit application to be considered complete.

b. Water recirculation facilities.

- (1) For the past two years, Estech has been proposing the use of reverse osmosis/carbon filtration units as part of its in-plant water treatment system. Estech has now significantly changed its water treatment plans by abandoning the reverse osmosis/carbon filtration units. Please explain the reasons for the change in plans and provide the information necessary to document that the present plans will meet the water quality requirements of the beneficiation process.
- (2) Engineering design drawings and specifications for the remaining elements of in-plant water treatment system have still not been sufficiently described. The conceptual layout of the plant as provided in the August 30 submittal does not have sufficient information for the County to verify that the facility will serve its purpose.

c. Drainage facilities.

In order to demonstrate compliance with Section III. C.6 of Ordinance No. 81-22, the applicant must provide engineering drawings and specifications for any drainage facilities and equipment which are necessary to bypass runoff from areas external to the water recirculation facilities around the active mining areas. In designing the drainage facilities, the applicant should be mindful of the need to comply with Section 205F-5 of the Manatee County Comprehensive Zoning and Land Development Code (Ordinance No. 81-4).

2. Disposal of Excess Water

The spray irrigation disposal concept described in the Ardaman Report "Water Balance Calculations and Post-Mining Water Management System" constitutes a significant modification to the Water Management Plan for the Duette

Mine. More information regarding the design, operation, and associated impacts of the proposed disposal system is necessary to determine whether the new design satisfies applicable operating permit criteria.

Other than specifying the acreage of the irrigation system, the application contains no information as to where the acreage will be located; no documentation of the suitability of soils and vegetation at the chosen location; no description of the expected irrigation schedule and quantities taking into account natural variations in rainfall and evapotranspiration; and no assessment of the water quality and quantity impacts associated with the irrigation system. The information which is lacking, along with any supporting data, calculations, and assumptions, is the type of information the County must have to verify that the system will serve its purpose without creating unacceptable adverse impacts.

A stated objective of the proposed spray irrigation system is to improve the quality of water in the reclaimed lakes. The mass balance computation referred to in the August 30 submittal is the basis for predicting the rate at which water quality in the lakes will improve with time. Yet, the application contains no information as to how those crucial computations were made. Once again, this type of information must be provided before the application can be considered complete.

3. Water Quantity and Quality Impacts

One of the County's major concerns regarding the proposed Duette Mine is its potentially adverse impacts on the quantity and quality of water entering the Lake Manatee Reservoir. Because of the location of the mine in the Lake Manatee watershed and the direct connection of the surficial aquifer underlying the Estech site with the surface streams and reservoirs, it is imperative that the various ways in which the mine might adversely affect water quality and quantity be fully and carefully evaluated.

Not all of the potential water quality and quantity impacts have been addressed in the application, and those which have been were not adequately documented. Throughout the Estech Operating Permit application review process, County staff has requested Estech to adequately document the steps by which it reached its conclusions regarding the water quantity and quality impacts. Because of the potentially serious effects of the proposed mine on a major drinking water supply,

the County staff must verify that the conclusions reached by Estech's technical experts are based on reliable data and good scientific and engineering practices. In spite of previous requests by the County for the technical documentation to make that verification possible, Estech has not provided the information to date. Some of the many water quantity and quality issues which have not been adequately addressed or documented to date include:

- (1) A comprehensive chemical characterization of the process water which will be discharged to the ground and possibly surface waters has yet to be provided. That characterization should include among other things, any radionuclides enhanced by the mining process and identify any chemicals used in the mining and beneficiation process which may be harmful to humans, wildlife, or aquatic species.
- (2) Data on the existing hydrologic, chemical and biological properties of the surficial aquifer should be provided in sufficient detail to enable reliable prediction of water quality and quantity impacts.
- (3) The groundwater impact analysis should describe the anticipated changes in the surficial aquifer, the Hawthorn/Tampa Formation, and the lower Floridan aquifer resulting from the discharge of pollutants into the groundwater and fully document the methodology used to predict the rate and direction of leachate plume movement and attenuation rates.

4. Transportation Analysis

Under the provisions of Ordinance No. 81-22, Estech is required to assess the disruption of normal traffic movement resulting from ore shipment. Since rail is the proposed mode of shipment, the degree of traffic disruption cannot reasonably be assessed until the rail line has been located. Before the application can be considered complete, Estech must locate the rail line and assess the impact on traffic movement.

Mr. John Oskam
September 23, 1983
Page Five

Ordinance No. 81-22 further requires and assessment of roadway impacts which may result from shipment of phosphate by truck. If Estech wishes to have the option of shipping by truck when rail service is not available, it will be necessary to assess the impacts associated with the trucking once the route(s) has been established. The impact assessment should address traffic flow disruption; roadway structural impacts and related maintenance requirements; and public safety and environmental impacts; and existing and potential cumulative impacts.

5. Reclamation

The revised DNR Conceptual Reclamation Plan application and the information included in response to No. 5 of the August 30 submittal is not sufficient to demonstrate compliance with the reclamation criteria of Manatee County Ordinance 81-22. To demonstrate compliance with the criteria, Estech must provide design plans for each reclaimed land form or water body, and an explanation of how the physical and biological features of the design will be implemented and maintained in a manner which satisfies the reclamation criteria. The applicant must, of course, provide the technical documentation necessary to support its design and implementation plans.

As in the past, Manatee County will continue to assist you and your experts in completing the application. We also will continue to conduct an interim, internal review of the information that has been submitted until Estech has filed a complete operating permit application. After the application is complete and Estech has received a DER groundwater permit, DNR Conceptual Reclamation Plan approval, and any other permits which may be required, Manatee County will formally conduct completeness and compliance reviews within the times prescribed by Manatee County Ordinance 81-22.

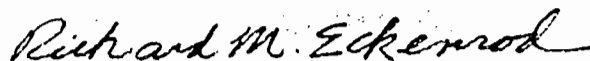
We have considered your request that the County prematurely proceed with the processing of the Operating Permit application and issue the permit pending issuance of the DER, DNR, and other required permits. Disregarding the requirement of first obtaining those permits, it would be impossible to properly process your application at this time because it is still inadequate. Nevertheless, such processing in the absence of other required permits would be contrary to Manatee County Ordinance 81-22 and would frustrate one of the important policies behind that requirement, which is, that Manatee County be able to review mining plans which are not being continually changed to obtain permits from other agencies.

Mr. John Oskam
September 23, 1983
Page Six

The importance and relevance of that requirement is clearly illustrated in the case of Estech's mining and reclamation plans which have a history of significant changes. For instance, in order to obtain a DER surface water discharge permit, Estech dramatically changed its proposed wastewater discharge from nearly 4 million gallons per day to purportedly zero discharge. In addition, within the last few months, Estech changed its DNR Conceptual Reclamation Plan by tripling the area of lakes that will exist after reclamation. During the Operating Permit review, Estech abandoned its plans for a reverse osmosis water preparation facility and it very recently decided to dispose of more than 10 billion gallons of substandard process water through a spray irrigation system, the location of which has not been specified. It therefore seems reasonable to expect that Estech's plans will continue to change over the remaining review period for the various state and federal permits. For the above reasons, we cannot waive the requirements of Ordinance 81-22 and prematurely proceed with the processing of the application.

Please feel free to call me if you have any questions or comments regarding this matter.

Sincerely,



Richard M. Eckenrod
Phosphate Mining Coordinator

RME:bko

xc: Board of County Commissioners
Bob Fernandez, County Administrator
John R. Blue, Esquire

JOHN OSKAM
Vice President Mining

March 28, 1983

Mr. William K. Hennessey
District Manager
State of Florida Department
of Environmental Regulation
7601 Highway 301 North
Tampa, Florida 33610-9544

RE: Groundwater Permit Application - Duette Mine

Dear Mr. Hennessey:

In compliance with the final order of the Secretary of DER dated May 28, 1982, and the affirmance of that order by the First District Court of Appeal which was final on March 24, 1983, we hereby submit the attached application for a groundwater discharge permit for our Duette Mine. We are also submitting various reports and other documents in support of this application, including process water quality information based on a bench scale simulation of the Duette process (see attached Table of Contents). The plan of study for this simulation was reviewed and approved during informal meetings last fall, attended by Harry Kerns as well as members of DER's General Counsel's office and other Tallahassee staff members.

For convenience, we have used DER Form 17-1.216(3) for this purpose even though a conditional surface water discharge permit and NPDES certification have already been granted and sustained on appeal. Because we are on the "cusp" of the implementation of the new groundwater permitting program, we are in the position of filing a supplement to an application which has already been acted upon. To avoid any possible confusion and to facilitate the consideration of this application with the "judicious promptness" indicated in the Secretary's final order, we are also forwarding herewith the portion of our industrial wastewater permit application which contains the applicant identification and source description information. Moreover, we have determined in consultation with Pedro Hernandez of your staff that because this application is technically considered a supplement to a previously submitted application, no additional processing fee is required.

continued..

EXHIBIT S

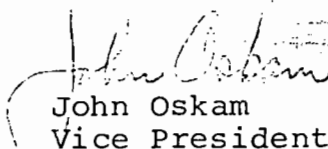
Mr. William K. Hennessey
March 28, 1983
Page Two

We believe that this submission is in full compliance with the Secretary's final order and the Department's procedures. We understand, however, that certain aspects of this matter are unique, particularly as to application procedures. For this reason, we request that you indicate your concurrence in our procedural approach by return mail as soon as you have had an opportunity to review the attachments.

Please feel free to contact me if you have any comments. Questions of a technical nature should be directed to Ron McGregor (813-758-4684), who will be coordinating this permitting process.

Sincerely yours,

ESTECH, INC.


John Oskam
Vice President Mining

JO/nj
Attachment

xc: W. Preismeyer (w/attachment)
W. Hopping (w/attachment)
R. Rhodes (w/attachment)
B. Earl (w/o attachment)
R. Nelson (w/o attachment)
T. Reese (w/o attachment)
M. Smallwood (w/o attachment)
V. Tschinkel (w/o attachment)
M. Greenwood (w/o attachment)
R. McGregor (w/o attachment)

RECEIVED MAY 18 1983

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

WILLIAM K. HENNESSEY
DISTRICT MANAGER

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610-9544

May 13, 1983

Mr. John Oskam
Vice President Mining
Estech, Inc.
Post Office Box 208
Bartow, FL 33830

RE: Groundwater Permit Application - Duette Mine - IC41-68519

Dear Mr Oskam:

Receipt of the referenced application is acknowledged. Your application has been reviewed by the staff of the State of Florida Department of Environmental Regulation as well as the Manatee County Health Department. In addition, Manatee County staff and consultants have provided comments. In all cases, after the review of the application, it has been deemed incomplete. The comments from all parties mentioned above are incorporated in the Department's request for additional information.

Provision of the information requested in the three enclosed attachments is needed for the purpose of completing the application. The processing of the above referenced application will resume upon receipt of the requested information.

If you have any questions please do not hesitate to call on us.

Sincerely,

Pedro A. Hernandez, P.E.
Industrial Waste Section

PAH/rb
cc: Ronald J. Gregor, Estech
Bill Deane, OGC
Bill Tiffany, MCPC

J. OSKAM

MAY 16 1983

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EXHIBIT T

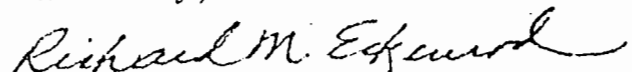
Dan A. Williams, P.E.
May 11, 1983
Page Twelve

Comment 14: A discrepancy exists on page 10 of Attachment VI regarding the sulfate reduction coefficient. The applicant should clarify whether 0.8 or 1.0 was used for estimation of insitu sulfate reduction.

Comment 15: As part of the impact analysis, please provide areal contours of sulfate concentration around the mine site and indicate the total volume of water in the surficial aquifer affected by the discharge.

We appreciate the opportunity to comment on the subject application. Please do not hesitate to call me if you have any questions regarding our comments.

Sincerely,



Richard M. Eckenrod
Phosphate Mining Coordinator

RME:jk

xc: Board of County Commissioners
John Ambrusko, M.D.
William Deane, Esquire
Rodney DeHan
Ronald J. McGregor
Howard Rhodes
Keith F. Roberts, Esquire

Dan A. Williams, P.E.
May 11, 1983
Page Eleven

Comment 5: All methods by which the leachate plume might interact with surface water bodies should be quantitatively assessed and documented.

Comment 6: Data in Tables 8 through 11, Attachment VI, suggests that the pH of the surficial aquifer may be lowered below the primary drinking water standard as a result of biochemical reduction of sulfate. The applicant should quantitatively assess this potential impact on the groundwater system including the effect of a pH change on other constituents in the soil and groundwater.

Comment 7: What evidence does the applicant have that native Desulfovibrio bacteria which normally exist under saturated, anerobic conditions in the soil will survive the strip mining process in which their natural environment is drained and concurrently exposed to air?

Comment 8: The applicant should evaluate how the increased hydrogen sulfide levels will affect the odor parameter of the secondary drinking water standards.

Comment 9: The applicant should explain why soil samples collected for the leaching tests (See Table 4, Attachment VI) were restricted to the depth range of 17 to 41 feet.

Comment 10: What evidence does the applicant have that the Desulfovibrio bacteria can sustain metabolic and reproductive functions over the full depth of the mine cut?

Comment 11: Has the applicant considered what impact the discharge and attendant changes in groundwater chemistry (e.g. increased H₂S levels) might have on other soil organisms?

Comment 12: What evidence does the applicant have that the organic compounds in the leachate provide a sufficient source of carbon for the sulfate reducing bacteria (SRB)?

Comment 13: What evidence does the applicant have that other nutrients essential for SRB reproduction and maintenance are present in sufficient quantities to sustain the SRB population density and metabolic activity at levels high enough to achieve the sulfate reduction rates measured in the laboratory?

areally, vertically, and with time, must be quantified and methodology used for quantification thoroughly documented.

Effects of mounding on water table elevation and associated groundwater flow direction and rate should be described. Also increase in leakance for the Hawthorn/Tampa formation caused by the increased head in the surficial aquifer should be quantified.

Comment 2: The applicant should explain in more detail the assumptions and methodology used for the seepage calculations, providing the following information at a minimum:

- (a) The basis for assuming a permeability value of 10 feet per day and a porosity of 0.35.
- (b) The dimensions of ditches, water levels therein, and corresponding water levels in the surficial aquifer upon which the calculations were based.
- (c) An explanation of how the groundwater table in the vicinity of the seepage sources was predicted.
- (d) The methodology by which flow lines depicted in Figure 1 through 3 of Attachment V were constructed.
- (e) A step-by-step explanation of how the movement of the leachate front was predicted.

Comment 3: The applicant should explain the basis for the following statement on Page 3 of Attachment V:

"With dispersion, the concentration of non-reactive, non-absorbed substances within the plume at this location would be 50% of the original concentrations in the process water."

Comment 4: On Page 3 of Attachment V, the applicant indicates that the concentration of total dissolved solids will not exceed the secondary drinking water standard outside of a 100 foot zone of discharge or the property boundary. What is the basis for that conclusion?

to indicate when recycle water had stabilized. Explain why other water quality parameters would necessarily reach stable concentrations at the same time or prior to fluoride stabilizing.

- (k) In a related question, explain through the use of a mass balance computation why a non-reactive, conservative constituent would not continue to increase in concentration in the system with time.
- (l) The simulation was apparently for a steady-state condition i.e. constant amounts of water and materials input and removed from the system. What variations in water quality would be expected under realistic conditions of variable inputs and outputs?

ISSUE NO. 5: FUTURE POLLUTION SOURCES IN THE VICINITY OF THE SITE

Comment 1: The Duette Mine site is bordered by properties owned by other mining companies which may be expected to seek permits to mine those lands in the future. The applicant's response to Question 6 on Page 2 of 2 of DER Form 17-1.216(1) should be expanded to address these expected future sources of pollution and the potential cumulative impact of those sources in conjunction with the Duette Mine.

ISSUE NO. 6: IMPACT ANALYSIS

Comment 1: The impact analysis does not adequately describe the anticipated changes in the complete aquifer system, resulting from the discharge of pollutants into the groundwater. The methodology used to predict the rate and direction of leachate plume movement and the anticipated rate of attenuation must be fully documented. Predictions of future plume movement, during and after the completion of mine operations, should be provided and methodology for determination documented. Changes in the chemical composition of the leachate plume,

in view of the proximity of the reservoir to the East Fork of the Manatee River.

Comment 10: The applicant should specifically identify the point at which rock dryer scrubber wastes are discharged into the water recirculation system.

Comment 11: Background water quality in the surficial aquifer does not reflect the elevated levels of sulfate found in the process simulation. The applicant should explain exactly what steps in the mining and beneficiation process are releasing sulfate from the gypsum associated with the matrix.

Comment 12: The applicant relies on the results of the Mine Process Simulation, Attachment VIII, to establish the quality of recycle water. The following information would be helpful in evaluating the reliability of those test results:

- (a) What length of time was required for each batch run?
- (b) How much water was input and withdrawn on each run?
- (c) What was the total volume of water in the system during each run?
- (d) How many samples were analyzed for the full parameter list?
- (e) How long were samples held prior to analysis?
- (f) How were the samples preserved?
- (g) Identify the method used for analysis of each parameter by source and method number.
- (h) What other parameters were measured beyond those provided in the application?
- (i) What were the results of those measurement?
- (j) Fluoride was selected as the "control parameter"

Comment 6: Construction and operational plans of the following facilities and structures should be provided in greater detail:

- (a) Design of embankments around sand-clay mix disposal areas.
- (b) Recycle water preparation facility.
- (c) Operation of the sand-clay mix disposal areas describing the total quantity of solid and liquid wastes disposed of in the settling areas including the quantity of wastewater recharge to the overburden spoil.

Comment 7: The only sites of groundwater discharge considered in the application were ditches and embankments around the periphery of the active mining areas. Inasmuch as the applicant has not requested that a single zone of discharge be established for the multiple discharge sites on the property, seepage quantities should be estimated for each discharge site on the property.

Among the discharge sites which were neglected in the application are the mine cuts themselves. Discharges into overburden spoil in mined-out pits may be expected to occur when transport water of the sand-clay mix slurry is introduced into the pits or when excess recycle water is pumped into the pits to store excess recycle water as part of the water management plan.

Comment 8: The application should include a detailed description of the mine water management system. An understanding of the procedures, structures, and equipment which Estech will use to route recycle water among the various impoundments in the water management system is essential to verify the reliability of the seepage and discharge estimates.

Comment 9: In connection with Comment 8, the applicant should specify the conditions under which the 210-acre reservoir will be used. The applicant should also identify the frequency and duration with which water levels in the reservoir are expected to exceed 95 feet MSL. An accurate estimate of seepage from the reservoir is particularly important

Comment 2: Very little information is provided in the application on the rate, chemical composition, and total volume of the waste products, including clays, sand tailings and wastes from the recycle water preparation facility. The pollutant sources should be fully documented, and the concentration of spent reagents associated with the solid waste products should also be quantified. The applicant should also describe the geometry of mine cuts into which the wastes are deposited.

Comment 3: The chemical characterization of the leachate is incomplete with respect to many constituents including all of the parameters for which Class I-A water quality standards exist which are not otherwise covered by primary and secondary drinking water standards. Also the characterization neglects potential organic contaminants and "free-floats" which may originate from reagents used in the beneficiation process.

Comment 4: Based on statements made in Attachment VII, a final decision has not been made regarding what type, if any, recycle water preparation facility will be used. Regardless of the type of facility chosen, its operation is likely to result in additional reagents and contaminants being introduced to the water recirculation system. The applicant should finalize design plans and specifications for the recycle water preparation facility and demonstrate how the recycle water quality will be affected by the use of that facility.

Comment 5: In connection with the Water Balance Report, Attachment IV, the applicant should answer the following questions:

- (a) How much of the "available water storage" (Table 3 of Attachment IV) in the year 2005 will be above final grade?
- (b) How much storage volume will be available below grade at the completion of reclamation?
- (c) In the event cumulative storage at the end of the ore extraction phase of mining exceeds the storage available at the end of reclamation, how will the excess water be disposed?

by Section 17-4.245(6)(d), F.A.C.

Comment 10: The background groundwater quality description is incomplete with respect to certain parameters which should also be included in the wastewater characterization. (See Comment No. 4, Issue No. 3) At a minimum, any additional parameters measured in the wastewater which are above or even approach Class I-A or G-II standards should also be measured in the background wells. Additionally, any priority organic pollutants, radionuclides, or "free-forms" which might occur in the proposed discharge should be measured in the background wells.

Comment 11: Sampling, preservation, and analysis procedures for each water quality parameter measured or proposed for measurement in the background, intermediate, or compliance wells should be specified. The analytical procedures should be identified by number in addition to source.

Comment 12: Background water quality characterization should include the producing zones with the Hawthorn/Tampa formation and the lower Floridan aquifer.

Comment 13: Page 33 of Attachment I of the application describes certain "solution features" of the mine site. The applicant should identify the extent to which these "solution features" penetrate the surficial aquifer and the Hawthorn/Tampa formation. Identify locations of standard penetration tests in the solution features.

ISSUE NO. 4: WASTE CHARACTERIZATION AND DISPOSAL PLANS

Comment 1: The sources, quantities, chemical composition, method of discharge, and disposal site locations and geometry for solid and liquid wastes generated by the mine should be described more thoroughly and documented, where appropriate, with engineering data and computations. The construction and operational features of the waste disposal facilities and pollutant sources should also be described in greater detail. Specific examples of deficiencies and additional information needs are provided in Comments 2 through 12 below.

Dan A. Williams, P.E.

May 11, 1983

Page Four

regime for the aquifer systems, must be provided. Specific deficiencies in the baseline which have been identified up to this point are described in Comments 2 through 13 below. In each instance, the density of field data points should be adequate to describe the variability of properties within each geologic unit for each phase of mining from the pre-mining through the post-reclamation conditions.

Comment 2: The rate and direction of flow in the surficial aquifer, the Hawthorn/Tampa formation, and the lower Floridan aquifer should be provided for both the wet and dry seasons. Water table contours and potentiometric surface elevations for the underlying aquifers should also be provided for the wet and dry seasons, a drought year, a wet year, and an average year.

Comment 3: The lithology of Hawthorn/Tampa formation underlying the property should be specifically described along with the thickness and areal extent of water producing zones within that unit.

Comment 4: The confining units underlying the mine site should be described and the leakance values associated with each unit should be provided. Changes in leakance values associated with removal of matrix should also be discussed.

Comment 5: Horizontal and vertical permeabilities and porosity of the surficial aquifer, the Bone Valley formation, and the underlying aquifers should be provided.

Comment 6: The transmissivity or hydraulic conductivity of producing zones within the Hawthorn/Tampa formation should be provided.

Comment 7: Cones of depression of water supply wells and monitor wells within a one mile radius of the site or potentially affected by the discharge should be provided.

Comment 8: Available chronological information of water levels in the monitor wells should be provided.

Comment 9: No information has been provided on soils and surface water drainage systems surrounding the site as required

ISSUE NO. 2: MONITORING PLAN - WELL CONSTRUCTION AND USE

Comment 1: Among the required contents of a monitoring plan as itemized in Section 17-4.245(6)(d), F.A.C. are questions pertaining to the location, construction, and use of monitoring wells and water supply wells. In general, the applicant has either not responded at all or not responded in sufficient detail on this issue. Specific examples of omissions or insufficient data are provided in Comments 2 through 5 below.

Comment 2: The applicant should describe the intended use of each monitoring well i.e. background, intermediate, or compliance. The applicant should also identify the specific effluent sites (such as the initial settling area, mine cuts, ditches, and plant facilities) that each well is intended to monitor and explain the rationale for the location of each well.

Comment 3: The applicant should provide plans for monitoring producing zones within the Hawthorn/Tampa formation and the lower Floridan aquifer.

Comment 4: As built drawings and specifications should be provided for each monitor well and water supply well existing within a one mile radius of each site or potentially affected by the discharge. Design drawings and specifications should be provided for proposed wells.

Comment 5: A schedule for abandonment of each monitoring, water supply and recharge well along with an abandonment procedure should be provided.

ISSUE NO. 3: BASELINE DESCRIPTION OF PROPERTY AND VICINITY

Comment 1: Baseline data on the hydrologic, physical, chemical and biological properties of the surface and subsurface environments on and adjacent to the mine site have not been described in sufficient detail. Site specific data, adequate to describe the present and future groundwater flow

Dan A. Williams, P.E.
May 11, 1983
Page Two

pounded by the fact that mineable phosphate reserves are found throughout the Lake Manatee Watershed of which approximately 35,000 acres are presently owned by mining interests. Impacts of the Duette Mine alone will be magnified by the cumulative effect of other mines.

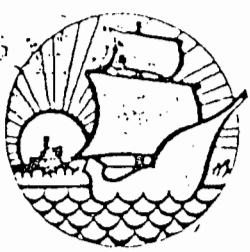
As you and the FDER staff review Estech's application, please remain mindful of what the County has at stake and how the Department's decision will affect the County's present and future water supplies. We also urge that you carefully consider comments of the Manatee County Health Department whose review of the subject application was coordinated with this office.

ISSUE NO. 1: APPLICATION FORMS AND ORGANIZATION OF APPLICANT'S
RESPONSES

Comment 1: In general, it is difficult for one reviewing the application to determine which sections of the various attachments contain the information relevant to a particular question on the application form. Furthermore, the references to certain attachments (e.g. referencing the Water Balance Report, Attachment IV, for information on water quality in monitor wells) are clearly in error. At a minimum, the application should organize his responses to the various questions to clearly indicate the specific sections of the application where the information and answers can be found.

Comment 2: The industrial wastewater permit application for the Waste Clay Impoundment, which constitutes part of the groundwater permit application, should be updated to reflect the various changes in the mining and waste disposal plans since the application was submitted in 1980. The applicant should not fail to complete the section relating to groundwater discharges under "ULTIMATE EFFLUENT DISPOSAL."

Comment 3: The completed DER Form 17-1.216(1) included with the subject application is evidently applicable only to "Existing Sources". Since the information required on Form 17-1.216(1) corresponds to the required contents of a monitoring plan as per Section 17-4.245(6)(d), F.A.C., the information should be considered as a response to that requirement.



BEST AVAILABLE COPY

MANATEE COUNTY GOVERNMENT

HAND-DELIVERED

May 11, 1983

Mr. Dan A. Williams, P.E.
District Engineer
Air, I.W., H.W. Programs
Florida Department of Environmental
Regulation, Southwest District
7601 Highway 301 North
Tampa, Florida 33610-9544

Re: Estech, Inc.
Groundwater Permit Application
for Duette Mine

Dear Mr. Williams:

This letter provides comments of the Manatee County staff and consultants regarding the completeness of Estech, Inc.'s groundwater permit application for the proposed Duette Mine. In preparing these comments, we have attempted to be as specific as possible. However, because of the magnitude, complexity and potential consequences of the proposed wastewater disposal plan, we anticipate that follow-up questions for the applicant may be necessary to assure the Department of Environmental Regulation has all of the information it needs to determine whether the standards for permit issuance (Section 17-4.07, F.A.C.) have been met.

As you know, approximately 85 percent of the proposed mine lies in the watershed of the Lake Manatee Reservoir, a regional water supply serving more than 230,000 people in Manatee and Sarasota counties. Estech's proposed mining and reclamation plans have the potential for widespread and long-term effects on that water supply which is derived in part from groundwater sources, as well as from surface runoff. The impacts on other aquifers underlying the site which may not be linked to the County's present water supply but which will play a role in the future are also vital considerations.

The potential danger to the County's water supply is com-

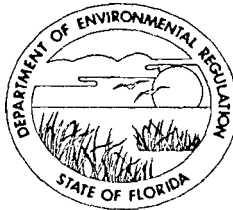
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STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610-9544



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

WILLIAM K. HENNESSEY
DISTRICT MANAGER

July 6, 1983

Mr. John Oskam
Vice President Mining
Estech, Inc.
Post Office Box 208
Bartow, FL 33830

RE: Groundwater Permit Application - Duette Mine - IC41-68519

Dear Mr. Oskam:

This letter will confirm our understanding of the agreement reached during the course of our meeting of June 9, 1983, concerning the above referenced permit application in conjunction with the Manatee County Health Department (MCHD) and the Manatee County Phosphate Mining Coordinator (MCPMC).

Our meeting reviewed each of the questions provided by the MCHD and the MCPMC which had been incorporated into the DER letter of incompleteness to you dated May 13, 1983.

As we discussed we concluded that DER was going to prepare a new letter of incompleteness based on the same questions received from MCHD & MCPMC plus our original set of additional requested information.

The Department is hereby requesting provision of the following information for the purpose of completing the application.

GROUNDWATER MONITORING

1. Please provide a discussion on groundwater flow as it will relate to each effluent site (such as the initial settling area, mine cuts, ditches, and plant facilities) and how each site will be monitored by each well or group of wells proposed for that site, [17-4.245(6)(d)].
2. Please clarify the intended designation of each proposed well as either background, intermediate or compliance, [Form 17-1.216(1)].

Mr. John Oskam
Estech, Inc.

July 6, 1983
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3. Please provide an expanded groundwater monitoring plan for monitoring within the Hawthorn/Tampa formation and the lower Floridan aquifer, [17-4.245(6)(g)(4)].
4. Please provide copies of the original drillers logs, SWFWMD well construction permit numbers and copies of the water well completion reports for the groundwater monitoring wells, [17-4.245(6)(d)].
5. Please provide location (latitude-longitude, surveyed if possible) and surveyed elevation (\pm .01 feet) for each monitoring well, [17-4.245(6)(d)].
6. Please provide a table indicating the following for each monitoring well:
 - a. well identification
 - b. lat./long. location
 - c. aquifer monitored
 - d. well depth
 - e. casing diameter
 - f. casing type (if PVC - glued or threaded?)
 - g. casing depth
 - h. screen type and slot size
 - i. land surface elevation and top of casing elevation
 - j. elevation range of the screen interval
 - k. lithologic description of the screen interval
 - l. specific capacity of the well
 - m. direction of groundwater flow for the interval screened at this location.
[17-4.245(6)(d)]
7. Please provide a detailed account of the sampling protocol utilized when water quality samples were and/or are to be obtained from the monitoring wells. This account should include:
 - a. pumping method
 - b. sample collection method
 - c. materials inventory that the sample contacted during collection
 - d. well evacuation details.
 1. method
 2. volume of water removed prior to sampling
 3. initial pH and specific conductance during evacuation
 4. final pH and specific conductance prior to sampling
 5. sample preservation details
 - e. a statement to the effect that FDER Standard Procedures or A.S.T.M. or EPA Methods were used, [17-4.245(6)(d) and 17-4.246].

8. Please discuss procedures to be utilized for monitoring well abandonment as well as the expected schedule for abandonment when wells are to be removed, [17-4.245(6)(d)].
9. Please provide depth, construction details and comment on the radius of influence for water supply wells and monitoring wells located within a one mile radius of the site, [17-4.245(6)(d)].
10. Please clearly identify the analytical procedures used in all water quality analysis, [17-4.245(6)(d) and 17-4.246(2)].
11. Provide background water quality characterization of production zones within the Hawthorn Formation, and the upper and lower Floridan aquifers, [17-4.245(6)(g)].
12. Provide background water quality characterization for parameters measured in the wastewater. The parameters to be measured shall include the standards for Class G-II Groundwaters plus Alkalinity, Ammonia (un-ionized), Beryllium, Chlorine, Cyanide, Dissolved Solids, Fluorides, Nickel, Nutrients, Oils and Greases, Pesticides & Herbicides (as detailed in Section 17-3.111(18) F.A.C.), Phenolic Compounds, Phthalate Esters, Polychlorinated Biphenyls and Specific Conductance. Additionally, any priority organic pollutants, radionuclides, or "free-forms" which might occur in the wastewater should be analyzed in the background waters. These parameters should be measured in the background wells, [17-4.245(6)(g)].
13. With regard to chemical parameters which naturally occur in the background, what will be the cumulative impact to the receiving groundwater (by the mine) for those parameters, [17-4.245(6)(d)]?
14. Please discuss mine cut geometry as it will relate to groundwater flow upon cut completion, fill and abandonment, [17-4.245(6)(d)].

GEOHYDROLOGIC AND HYDROSTRATIGRAPHIC ISSUES

15. Please provide an in-depth discussion on groundwater flow, as it occurs naturally, as it will relate to all aspects of the active facility, and as it will be expected from the closed facility after mining activities are complete, [17-4.245(6)(d)]. Supporting this discussion please provide the following:
 - a. The rate and direction of flow in the surficial aquifer, the Hawthorn/Tampa formation, and the lower Floridan aquifer should be provided for both the wet and dry seasons. Water table contours and potentiometric surface elevations for the underlying aquifers should also be provided for the wet and dry seasons, a drought year, a wet year, and an average year.

- b. The lithology of the Hawthorn/Tampa formation underlying the property should be specifically described along with the thickness and areal extent of water producing zones within that unit.
- c. The confining units underlying the mine site should be described and the leakance values associated with each unit should be provided. Changes in leakance values associated with removal of matrix should also be discussed.
- d. Horizontal and vertical permeabilities and porosity of the surficial aquifer, the Bone Valley formation, and the underlying aquifers should be provided.
- e. The transmissivity or hydraulic conductivity of producing zones within the Hawthorn/Tampa formation should be provided.
- f. Available chronological information of water levels in the monitor wells should be provided.
- g. Provide information on soils and surface water drainage systems surrounding the site as required by Section 17-4.245(6)(d), F.A.C.
- h. Identify the extent to which "solution features" penetrate the surficial aquifer and the Hawthorn/Tampa formation. Identify locations of standard penetration tests in the solution features and provide the logs from the tests.

WASTE CHARACTERIZATION

16. Please provide additional information concerning the chemistry of materials to be used at the subject facility. This should include a detailed chemical breakdown of the chemicals and reagents utilized as process additives, [17-4.245(6)(d)].
17. Provide volatile organics priority pollutants scan of the fuel oils and kerosenes expected to be used in the flotation process, [17-4.245(6)(d)].
18. Please provide a full priority pollutants analysis of a few representative flotation process discharges, [17-4.245(6)(d)].
19. Discuss in detail the expected groundwater quality impact and fate of any organic priority pollutants found. The discussion should include information concerning the mobility and carcinogenicity of these volatile compounds, [17-4.245(6)(d)].

20. Please provide information concerning the volume of chemicals and reagents to be used, and total volume of the waste products, including clays, sand tailings and wastes from the recycle water preparation facility. The pollutant sources should be fully documented, and the concentration of spent reagents associated with the solid waste products should also be quantified. The applicant should also describe the geometry of mine cuts into which the wastes are deposited, [17-4.245(6)(d)].
21. Based on statements made in Attachment VII, a final decision has not been made regarding what type, if any, recycle water preparation facility will be used. Regardless of the type of facility chosen, its operation is likely to result in additional reagents and contaminants being introduced to the water recirculation system. The applicant should finalize design plans and specifications for the recycle water preparation facility and demonstrate how the recycle water quality will be affected by the use of the facility, [17-4.245(6)(d)].
22. In connection with the Water Balance Report, Attachment IV, the applicant should answer the following questions [17-4.245(6)(d):
 - a. How much of the "available water storage" (Table 3 of Attachment IV) in the year 2005 will be above final grade?
 - b. How much storage volume will be available below grade at the completion of reclamation?
 - c. In the event cumulative storage at the end of the ore extraction phase of mining exceeds the storage available at the end of reclamation, how will the excess water be disposed?
23. Construction and operational plans of the following facilities and structures should be provided in greater detail: [17-4.245(6)(d):
 - a. Design of embankments around sand-clay mix disposal areas.
 - b. Recycle water preparation facility.
 - c. Operation of the sand-clay mix disposal areas describing the total quantity of solid and liquid wastes disposed of in the settling area including the quantity of wastewater recharge to the overburden spoil.
24. The only sites of groundwater discharge considered in the application were ditches and embankments around the periphery of the active mining areas. Inasmuch as the applicant has not requested that a single zone of discharge be established for the multiple discharge sites on the property, seepage quantities should be estimated for each discharge site on the property.

Among the discharge sites which were neglected in the application are the mine cuts themselves. Discharges into overburden spoil in mined-out pits may be expected to occur when transport water of the sand-clay mix slurry is introduced into the pits or when excess recycle water is pumped into the pits to store excess recycle water as part of the water management plan, [17-4.245(4)(a)].

25. The application should include a detailed description of the mine water management system. An understanding of the procedures, structures, and equipment which Estech will use to route recycle water among the various impoundments in the water management system is essential to verify the reliability of the seepage and discharge estimates, [17-4.245(6)(d)].
26. In connection with Comment 8, the applicant should specify the conditions under which the 210-acre reservoir will be used. The applicant should also identify the frequency and duration with which water levels in the reservoir are expected to exceed 95 feet MSL. An accurate estimate of seepage from the reservoir is particularly important in view of the proximity of the reservoir to the East Fork of the Manatee River, [17-4.245(6)(d)].
27. The applicant should specifically identify the point at which rock dryer scrubber wastes are discharged into the water recirculation system, [17-4.245(6)(d)].
28. Background water quality in the surficial aquifer does not reflect the elevated levels of sulfate found in the process simulation. The applicant should explain exactly what steps in the mining and beneficiation process are releasing sulfate from the gypsum associated with the matrix.
29. The applicant relies on the results of the Mine Process Simulation, Attachment VIII, to establish the quality of recycle water. The following information would be helpful in evaluating the reliability of those test results [17-4.245(6)(d):
 - a. What length of time was required for each batch run?
 - b. How much water was input and withdrawn on each run?
 - c. What was the total volume of water in the system during each run?
 - d. How many samples were analyzed for the full parameter list?
 - e. How long were samples held prior to analysis?
 - f. How were the samples preserved?
 - g. Identify the method used for analysis of each parameter by source and method number.
 - h. What other parameters were measured beyond those provided in the application?

- i. What were the results of those measurement?
 - j. Fluoride was selected as the "control parameter" to indicate when recycle water had stabilized. Explain why other water quality parameters would necessarily reach stable concentrations at the same time or prior to fluoride stabilizing.
 - k. In a related question, explain through the use of a mass balance computation why a non-reactive, conservative constituent would not continue to increase in concentration in the system with time.
 - l. The simulation was apparently for a steady-state condition, i.e., constant amount of water and materials input and removed from the system. What variations in water quality would be expected under realistic conditions of variable inputs and outputs?
30. The impact analysis does not adequately describe the anticipated changes in the complete aquifer system, resulting from the discharge of pollutants into the groundwater. The methodology used to predict the rate and direction of leachate plume movement and the anticipated rate of attenuation must be fully documented. Predictions of future plume movement, during and after the completion of mine operations, should be provided and methodology for determination documented. Changes in the chemical composition of the leachate plume, areally, vertically, and with time, must be quantified and methodology used for quantification thoroughly documented, [17-4.07(1)].

Effects of mounding on water table elevation and associated groundwater flow direction and rate should be described. Also increase in leakance for the Hawthorn/Tampa formation caused by the increased head in the surficial aquifer should be quantified, [17-4.245(6)(d)].

31. The applicant should explain in more detail the assumptions and methodology used for the seepage calculations, providing the following information at a minimum [17-4.245(6)(d)]:
- a. The basis for assuming a permeability value of 10 feet per day and a porosity of 0.35.

- b. The dimensions of ditches, water levels therein, and corresponding water levels in the surficial aquifer upon which the calculations were based.
 - c. An explanation of how the groundwater table in the vicinity of the seepage sources was predicted.
 - d. The methodology by which flow lines depicted in Figures 1 through 3 of Attachment V were constructed.
 - e. A step-by-step explanation of how the movement of the leachate front was predicted.
32. The applicant should explain the basis for the following statement on Page 3 of Attachment V:
"With dispersion, the concentration of non-reactive, non-absorbed substance within the plume at this location would be 50% of the original concentrations in the process water."
33. On Page 3 of Attachment V, the applicant indicates that the concentration of total dissolved solids will not exceed the secondary drinking water standard outside of a 100 foot zone of discharge or the property boundary. What is the basis for that conclusion?
34. All methods by which the leachate plume might interact with surface water bodies should be quantitatively assessed and documented, [17-4.07(1) and 17-3.402(1)(f)].
35. Data in Tables 8 through 11, Attachment VI, suggests that the pH of the surficial aquifer may be lowered below the primary drinking water standard as a result of biochemical reduction of sulfate. The applicant should quantitatively assess this potential impact on the groundwater system including the effect of a pH change on other constituents in the soil and groundwater, [17-4.245(2)(a)].
36. What evidence does the applicant have that native Desulfovibrio bacteria which normally exist under saturated, anerobic conditions in the soil will survive the strip mining process in which their natural environment is drained and concurrently exposed to air? [17-4.245(2)(a)].
37. The applicant should evaluate how the increased hydrogen sulfide levels will affect the odor parameter of the secondary drinking water standards, [17-4.245(2)(a)].
38. The applicant should explain why soil samples collected for the leaching tests (See Table 4, Attachment VI) were restricted to the depth range of 17 to 41 feet.

39. What evidence does the applicant have that the Desulfovibrio bacteria can sustain metabolic and reproductive functions over the full depth of the mine cut? [17-4.07(1)].
40. Has the applicant considered what impact the discharge and attendant changes in groundwater chemistry (e.g. increase H_2S levels) might have on other soil organisms? [17-3.402(1)(a)].
41. What evidence does the applicant have that the organic compounds in the leachate provide a sufficient source of carbon for the sulfate reducing bacteria (SRB)? [17-4.07(1)].
42. What evidence does the applicant have that other nutrients essential for SRB reproduction and maintenance are present in sufficient quantities to sustain the SRB population density and metabolic activity at levels high enough to achieve the sulfate reduction rates measured in the laboratory? [17-4.07(1)].
43. A discrepancy exists on page 10 of Attachment VI regarding the sulfate reduction coefficient. The applicant should clarify whether 0.8 or 1.0 was used for estimation of insitu sulfate reduction, [17-4.245(2)(a)].
44. As part of the impact analysis, please provide areal contours of sulfate concentration around the mine site and indicate the total volume of water in the surficial aquifer affected by the discharge, [17-4.245(2)(a)].
45. On presenting the water balance calculations for the Duette Mine, the available storage (acre feet) for each mining year is presented. What will be the resultant amount of surface runoff lost to the Manatee River as a result of these storage areas? [17-4.245(6)(d)].
46. Figure 3 in Attachment V shows sulfate equivalent to 250 mg/l at the extreme boundary of the zone of discharge (both horizontally and vertically). What happens to this plume (and that of other parameters) in areas where the base of the aquifer is pervious? Also, what documentation exists to demonstrate that sulfate will be attenuated by bacteria at depths approaching the base (i.e. Do bacteria function in a similar manner throughout the groundwater "column" from surface to base)? [17-4.245(6)(d)].
47. Explain the impacts of reduced pH on groundwater as a result of biological attenuation of sulfate, [17-4.245(6)(d)].

Mr. John Oskam
Estech, Inc.

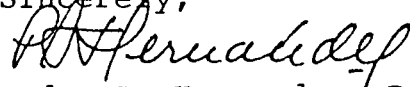
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In addition we are requesting that specific questions on the permit application be answered explicitly. In other words, answers such as "See Attachment IV" are unacceptable. Please at least identify the paragraphs and page numbers of the report answering every specific question.

Once again let me reiterate that the processing of the above referenced application will resume upon receipt of the requested information.

If you have any questions please do not hesitate to call on us.

Sincerely,


Pedro A. Hernandez, P.E.
Industrial Waste Section

PAH/rb

cc: Ronald J. McGregor, Estech
Bill Deane, OGC
Bill Tiffany, MCPC
Dick Eckenrod, Manatee County
Steve R. Boyes, DER



State of Florida
DEPARTMENT OF NATURAL RESOURCES

DR. ELTON J. GISSENDANNER
Executive Director
Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard, Tallahassee, Florida 32303

BOB GRAHAM
Governor
GEORGE FIRESTONE
Secretary of State
JIM SMITH
Attorney General
GERALD A. LEWIS
Comptroller
BILL GUNTER
Treasurer
DOYLE CONNER
Commissioner of Agriculture
RALPH D. TURLINGTON
Commissioner of Education

Please Reply to: BUREAU OF MINE RECLAMATION
903 WEST TENNESSEE STREET
(Corner of Tennessee and Woodward Streets)
TALLAHASSEE, FLORIDA 32304

October 4, 1983

Mr. Thomas W. Reese
Attorney at Law
123 Right Street North
St. Petersburg, Florida 33701

Dear Mr. Reese:

RE: EST-D-CP

The referenced application for a permit pursuant to Chapter 16C-16, Florida Administrative Code, has been placed on the DNR agenda. The enclosed agenda item will be reviewed by the Cabinet Aides in the Governor's Conference Room, Plaza level of the Capitol, at 9:00 a.m., October 12, 1983. The item will then be considered by the Governor and Cabinet in Room LL03 of the Capitol, at 9:00 a.m., October 18, 1983.

The staff has recommended approval with conditions to the Governor and Cabinet. Anyone objecting to the staff recommendation may exercise any rights they may have pursuant to Section 120.57, Florida Statutes, and unless a petition for a hearing is filed within 21 days of receipt of this notice, the right to such filing shall be waived by any person receiving notice.

A copy of the draft agenda item showing the proposed action concerning this application is enclosed for your information. Please contact Greg Daugherty or me by telephone at (904) 488-8217 should you have any questions concerning our action.

Sincerely,

W. C. Summers, Chief
Bureau of Mine Reclamation

WCS/zkh

Enclosure

CERTIFIED MAIL — P 410 719 435 — Return Receipt Requested

DIVISIONS / ADMINISTRATION BEACHES AND SHORES LAW ENFORCEMENT MARINE RESOURCES
RECREATION AND PARKS RESOURCE MANAGEMENT STATE LANDS

EXHIBIT V

DEPARTMENT OF NATURAL RESOURCES

Division of Resource Management

Cabinet Agenda

Meeting Dates

Bureau	09-23-83
Division	09-28-83
Department	10-04-83
Cabinet Aides	10-12-83
Cabinet	10-18-83

Title: Estech, Inc.'s Conceptual Plan, EST-D-CP, for reclamation at its Duette phosphate mine in Manatee County

Potential Controversial Issues:

1. Non-restoration of pre-mining topography and drainage.
2. Natural revegetation of lake littoral zones.
3. Square lake and wetland designs.

Approval for Agenda:

	Initials/ Date
Project Manager	<u>ZPK</u> / <u>9/26/83</u>
Subsection Supervisor	<u>GD</u> / <u>9-28-83</u>
Section Administrator	<u> </u> / <u> </u>
Bureau Chief	<u>MM</u> / <u>9-28-83</u>
Division Director	<u>PCA</u> / <u>9/28/83</u>

Consideration of Estech, Inc.'s conceptual plan, EST-D-CP, for reclamation at its Duette phosphate mine in Manatee County, pursuant to Section 211.32, F.S., and Rule 16C-16.041, F.A.C. The time limit for final agency action on this application is November 28, 1983.

(See Attachment , Pages 1-10)

RECOMMEND APPROVAL WITH THE FOLLOWING CONDITIONS:

GENERAL PERMIT CONDITIONS

1. APPROVAL OF THIS CONCEPTUAL PLAN DOES NOT CONSTITUTE A STATEMENT OR ADMISSION CONCERNING THE OWNERSHIP OF ANY INTERESTS IN LANDS REVIEWED.
2. THE NATURAL RESOURCES WITHIN THE UNMINED PORTIONS OF THE PRE-DETERMINED FLOOD PLAIN OF ANY RIVER OR STREAM WITHIN THE MINE WHICH ARE NOT MINED BECAUSE OF ANY PROHIBITION IMPOSED BY LAW, ORDINANCE, OR REGULATION, ADOPTED BY ANY GOVERNMENTAL BODY OR AGENCY ACTING WITHIN THE SCOPE OF THEIR AUTHORITY SHALL BE PROTECTED FROM ADVERSE IMPACTS RELATED TO MINING OR RECLAMATION ACTIVITIES PURSUANT TO SECTION 16C-16.053, F.A.C.
3. IN RESTORING DRAINAGE PATTERNS, THE DEPARTMENT AND THE COMPANY RESERVE THE RIGHT TO REEXAMINE IN EACH ANNUAL APPLICATION THE PLACEMENT AND CONFIGURATION OF THE LAKES, STREAMS, AND WETLANDS WHICH HAVE BEEN PROPOSED IN THE CONCEPTUAL PLAN TO ASSURE THAT THE NATURAL FUNCTIONS OF THE LAKES, STREAMS, AND WETLANDS ARE RESTORED IN ACCORDANCE WITH THE PROVISIONS OF THE THEN EXISTING STANDARDS AND CRITERIA OF CHAPTER 16C-16, F.A.C.
4. AREAS TO BE RECLAIMED AS PASTURE OR IMPROVED PASTURE SHALL INCORPORATE CLUMPS OR WINDROWS OF TREES SO THAT EVERY TEN ACRES SHALL HAVE SOME TREES. AREAS TO BE RECLAIMED AS CROPLAND SHALL HAVE WINDROWS OF TREES ALONG MAJOR ACCESS ROADS AND BETWEEN FIELDS.
5. IN ALL WETLAND AND UPLAND FORESTED AREAS, THE OPERATOR SHOULD STRIVE TO ACHIEVE A TREE PLANTING ARRANGEMENT AND MIXTURE OF SPECIES THAT IS RANDOM. IF THE USE OF PLANTING EQUIPMENT NECESSITATES THE ESTABLISHMENT OF TREE ROWS THEN THEY SHOULD BE SINUOUS RATHER THAN STRAIGHT.
6. THE GROUND COVER ESTABLISHED IN ALL UPLAND FORESTS SHALL INCLUDE ONE OR MORE OF THE FOLLOWING; ANNUAL GRASSES, LOW-GROWING LEGUMES, OR WILDLIFE FOOD PLANTS.
7. APPLICANT WILL CONTINUE TO PURSUE METHODS OF REDUCING THE AMOUNT OF CLAY SETTLEMENT AREAS THAT ARE REQUIRED IN THE PROCESSING OF PHOSPHATE ROCK.
8. THIS CONCEPTUAL PLAN IS A GENERAL OVER-ALL PLAN WHICH EXPLAINS HOW AND WHEN ALL AFFECTED LANDS IN THE MINE AREA HAVE BEEN OR ARE TO BE RECLAIMED. APPROVAL OF THIS CONCEPTUAL PLAN DOES NOT RELIEVE THE COMPANY OF THE OBLIGATION TO COMPLY WITH THE STANDARDS AND CRITERIA SET FORTH IN CHAPTER 16C-16, F.A.C., AND SPECIFICALLY SECTION 16C-16.051, F.A.C., AND ANY INCONSISTENCIES BETWEEN THIS CONCEPTUAL PLAN AND THOSE STANDARDS AND CRITERIA SHALL BE RESOLVED IN FAVOR OF THE SPECIFIC STANDARDS AND CRITERIA OF 16C-16.051, F.A.C.

SPECIAL PERMIT CONDITIONS

1. RECLAMATION OF ALL SAND-CLAY MIX WASTE DISPOSAL AREAS SHALL COMMENCE ONLY WHEN THE CALCULATED CONSOLIDATION IS COMPLETED. REMANENT DIKES SHALL BE GRADED DOWN TO CAP THE SAND-CLAY MIX SURFACE AND TO FLATTEN REMAINING DAM SLOPES. IN ACCORDANCE WITH THIS CONDITION AND GENERAL PERMIT CONDITION NUMBER SEVEN, THE APPLICANT SHALL REVISE THE POST RECLAMATION TOPOGRAPHY TO RESTORE PRE-MINING DRAINAGE SYSTEMS. THIS SHALL NOT PREVENT THE APPLICANT FROM PERFORMING ANY WORK, SUCH AS PLANTING GRASS OR OTHER COVER, TO STABILIZE THE AREA.
2. HERBACEOUS AND WOODED WETLANDS SHALL BE ESTABLISHED USING THE BEST AVAILABLE TECHNOLOGY, PURSUANT TO SECTION 16C-16.051(10)(D), F.A.C. AN ATTEMPT SHALL BE MADE TO ESTABLISH A VARIETY OF INDIGENOUS SPECIES IN BOTH HERBACEOUS AND WOODED WETLANDS. DETAILED INFORMATION FOR WETLAND RESTORATION AND RECLAMATION SHALL BE PROVIDED IN FUTURE ANNUAL APPLICATIONS.
3. THE APPLICANT SHALL REVISE LAKE AND WETLAND DESIGNS TO MORE CLOSELY RESEMBLE NATURAL SYSTEMS AND ELIMINATE SQUARED-OFF CORNERS.
4. REVISIONS REQUIRED BY SPECIAL PERMIT CONDITIONS ONE AND THREE SHALL BE SUBMITTED TO THE BUREAU FOR REVIEW AND APPROVAL WITHIN ONE HUNDRED TWENTY DAYS FOLLOWING THE APPROVAL OF THIS CONCEPTUAL PLAN.
5. PURSUANT TO CHAPTER 16C-16, F.A.C., APPROVAL OF THIS CONCEPTUAL PLAN IS CONTINGENT UPON THE APPLICANT OBTAINING THE NECESSARY WATER QUALITY PERMITS FROM THE DEPARTMENT OF ENVIRONMENTAL REGULATION.

CONCEPTUAL PLAN SUMMARY*

Company: Estech, Inc.

Mine: Duette Mine

Location: Townships 33 and 34 South, Range 22 East in Manatee County

The Duette Mine is a new mine covering approximately 10,524 acres that are subdivided as follows:

Mined/disturbed by mining operations before 7-1-75	0
To be mined/disturbed by mining operations	8,486
To remain undisturbed by mining operations	2,038

Waste clay disposal sites will cover approximately 6,179 acres: 5,509 acres will be used for above-grade, sand-clay mix disposal and 670 acres will be used for below-grade, sand-clay mix disposal. Prior to disposal, waste clay will be thickened with a flocculant and mixed with sand tailings in a 2:1 (by weight) sand-clay ratio. The sand-clay mix will then be pumped to a disposal site where consolidation will return the material to approximate the original grade. All sand-clay mix disposal sites will be constructed on mined land, with the exception of the Initial Settling Area (ISA).

No gypsum waste disposal sites are planned for the Duette Mine.

The Duette Mine is contained within three major drainage basins. The northwest portion of the mine (slightly more than 13 percent of the total area) drains to the northwest into the South Fork of the Little Manatee River. The southeastern corner of the mine, which makes up less than 2 percent of the total mine, drains south to Wingate Creek, which flows into the Myakka River. The remaining 85 percent of the mine drains into the north and east forks of the Manatee River. The North Fork of the Manatee River enters the property from the north, exits, and then re-enters the property north of Keentown, and ultimately re-exits to the southwest, draining about 39 percent of the site. The East Fork Manatee River enters from the east and also exits to the southwest, draining the remaining 46 percent. Approximately 2000 acres will not be disturbed by mining operations which includes the 25-year floodplain of the South Fork Little Manatee River and the north and east forks of the Manatee River. Final land elevations will approximate original elevations; however, the drainage pattern will be significantly modified where the existence of remanent dikes will create 34 small, closed basins.

Final reclamation of the 8,486 acres that are to be mined or disturbed will include 6,184 acres of uplands, 1,249 acres of wetlands, and 1,053 acres of lakes. The conceptual plan includes at least acre-for-acre replacement of herbaceous and wooded wetlands. Approximately 10 percent of the uplands will be reforested with a variety of indigenous hardwoods and conifers. The remaining uplands will be revegetated as citrus groves (less than one percent) and cropland and pastureland (89 percent).

*Note: This summary was prepared by staff from information contained in the application.

Staff Review Comments

The conceptual plan, designated EST-D-CP, was filed with the Department of Natural Resources on January 14, 1982. Additional information and corrections to make the application complete were received on August 30, 1983. The application was reviewed by staff, the Reclamation Advisory Committee, and Manatee County. The review included an inspection of the conceptual plan area on February 17, 1982. Comments were received from Manatee County and the following Reclamation Advisory Committee members: Department of Environmental Regulation, Southwest Florida Water Management District, Tampa Bay Regional Planning Council, and USDA Soil Conservation Service.

Staff review has produced the following comments:

Estech has proposed a waste disposal plan which minimizes the filling time and the height of above-grade disposal sites. The volume of sand-clay mix for each disposal site has been determined so that, after capping and final consolidation, the final ground surface will be at or slightly above pre-mining elevations. However, following the completion of waste disposal operations at each site, Estech proposes to initiate reclamation prior to complete consolidation. Reclamation will consist of grading the dams down to cap the sand-clay mix. Following reclamation, the sand-clay mix will continue to subside below the surface of the remnant dams. The plans for early reclamation will result in a final topography which resembles the topography of unreclaimed settling areas. (See attached "Conceptual Post Mining Topography and Surface Drainage Map.") In addition, the proposed final topography will significantly modify the drainage pattern through the creation of 34 small, closed basins. This aspect of the reclamation plan is not complying with the following rule:

Rule 16C-16.051(7)(b), F.A.C.: "The operator shall restore the original drainage pattern of the area to the greatest extent possible..."

Estech has stated that subsidence due to the consolidation of sand-clay mix should be complete within seven to twelve years after the proposed reclamation period. Because pre-mature reclamation would create a topography which defeats the goal of reclamation, staff believes that it would be better to delay reclamation until consolidation is complete. This issue is addressed by Special Permit Condition Number One.

Estech has stated that the lake littoral zones "are expected to be colonized by emergent marsh vegetation" and where necessary, other techniques will be used "to ensure that a diverse marsh community is established." Natural revegetation does not comply with Rule 16C-16.051(10)(d), F.A.C., which states, "All wetland areas shall be restored and revegetated in accordance with the best available technology..." This issue is addressed by Special Permit Condition Number Two.

Reclamation plans for the Duette Mine include lake and wetland designs which do not resemble natural lakes and wetlands. These designs have square corners where the low areas are adjacent to or contained by waste disposal dams. Staff believes that more natural designs could be achieved. Special Permit Condition Number Three addresses this concern.

Staff is of the opinion that the application, with conditions, meets the standards and criteria contained in Section 211.32, Florida Statutes, and Chapter 16C-16.041, Florida Administrative Code.

Manatee County and the Reclamation Advisory Committee provided the following comments:

<u>Agency</u>	<u>Summary of Comments</u>
USDA Soil Conservation Service	Expressed concern over the loss of rangeland to pastureland, and the negative impact of this change on wildlife habitat.
Tampa Bay Regional Planning Council	Expressed concern over the applicant's plans to naturally revegetate wetlands which are inconsistent with council recommendations.

Manatee
County

(Comments were prepared by Peeples, Earl, Reynolds & Blank)
Manatee County provided a substantial list of comments. The
county shares staff's concern regarding:

1. Estech's non-restoration of pre-mining topography and drainage,
2. Estech's plans to allow lake littoral zones to naturally revegetate, and
3. Estech's square lake and wetland designs.

Staff has addressed these concerns with Special Permit
Conditions One through Four. Comments other than those
addressing the above concerns were considered but disregarded
for one of the following reasons:

1. not specifically requested by Rules or Form,
2. not requested during the 30 days of the initial review period,
3. involved detail which is not included in the Conceptual Plan, or
4. the applicant addressed the concern in previous submittals.)

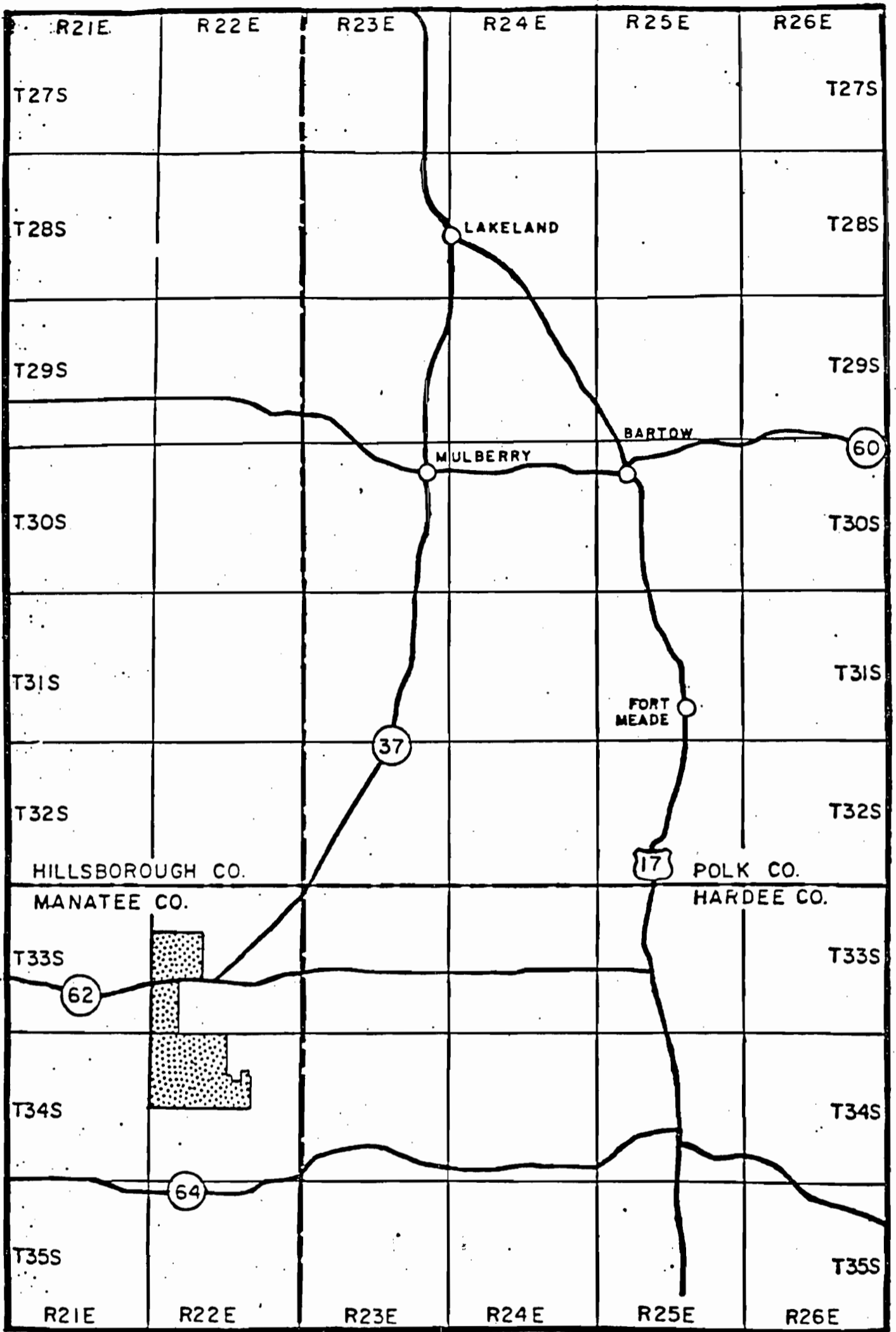
Department of
Environmental
Regulation

"...It is difficult to adjoin deep mine lakes to state waters because these lakes usually do not meet Class III water quality standards. Although Estech is restoring an acceptable quantity of wetland acreage, no attempt is being made to restore stream tributaries to the Manatee River. Biologists at DER have concluded that similar tributaries other places perform valuable ecological functions..."

"1. It has been recognized (Best et al, 1983,) that reliance on natural succession on phosphate mined lands is ineffective if the area of disturbance is large and the seed source is remote. The rules of DNR clearly state that wetlands will be restored with best available technology, this would seem to preclude "natural" succession as a restoration technique.

2. It is of course acceptable to create wetlands in depressions of reclaimed clay settling areas. However, it is unlikely that these wetlands (which are usually dominated by primrose willow and cattail) replace the functions of natural wetlands.

Therefore, the acreages comprised by these wetlands should not count as "1 for 1" wetland acreage replacement. Some credit should be given for this type wetland, but it should depend on the functional quality of the wetland created."



DESIGNATES COUNTY LINES



MINE LOCATION

Estech, Inc.
 Duette Mine
 Conceptual Plan, EST-D-CP

ATTACHMENT _____

PAGE 4

Note: This map was prepared by DNR staff.

WASTE DISPOSAL DATA FOR CONCEPTUAL PLAN, EST-D-CP

(Prepared by DNR staff)

SITE CODE	Acreage	Above/ Below Grade	Average Dam Height (ft)(1)	Volume Available for Disposal (acre-feet)	Mining		Storage		Method of Disposal (2)	Status (3)	Type of Cap (if any) (4)	Approximate Cap Thickness (ft)	Percent Area Covered by Cap	Height Above Grade After Reclamation (ft)	Height Above Grade After Consolidation (ft)
					Begins (mine life years)	Ends (mine life years)	Begins (mine life years)	Ends (mine life years)							
ISA	480	A	33	15,531	unmined		0 - 21		SC	P-UNAPP	OB	1	100	23	22
AD-1	129	A	33	7,100	0	1	1 - 4.5		SC	P-UNAPP	OB	1	100	18	3
AD-2	132	A	27	5,400	1	2	1.7 - 5		SC	P-UNAPP	OB	1	100	7	6
AD-3	117	A	27	4,753	2	3	2.3 - 5		SC	P-UNAPP	OB	1	100	10	7
AD-4	163	A	27	6,084	3	3	3.2 - 4.7		SC	P-UNAPP	OB	1	100	8	7
AD-5	135	A	23	6,768	4	4	3.8 - 8		SC	P-UNAPP	OB	1	100	12	5
AD-6	192	A	23	8,650	4	5	5 - 9		SC	P-UNAPP	OB	1	100	12	3
AD-7	118	A	18	3,256	6	6	5.8 - 8.8		SC	P-UNAPP	OB	1	100	7	5
AD-8	122	A	23	4,896	6	7	7 - 10		SC	P-UNAPP	OB	1	100	10	1
AD-9	150	A	30	9,944	7	8	8.1 - 14.6		SC	P-UNAPP	OB	1	100	17	0
AD-10	129	A	23	5,512	7	9	8.8 - 11		SC	P-UNAPP	OB	1	100	8	0
AD-11	165	A	23	6,762	8	10	9.5 - 12		SC	P-UNAPP	OB	1	100	9	0
AD-12	227	A	33	14,706	10	11	11.1 - 15		SC	P-UNAPP	OB	1	100	16	0
AD-13	136	A	30	9,130	12	13	12.5 - 17		SC	P-UNAPP	OB	1	100	15	2
AD-14	154	A	30	10,836	13	14	13.7 - 19		SC	P-UNAPP	OB	1	100	16	0
AD-15 ^a	60	B	0	1,638	14	14	14.5 - 17		SC	P-UNAPP	OB	1	100	-5	-19
AD-16	129	A	30	7,392	13	15	14.9 - 17.7		SC	P-UNAPP	OB	1	100	15	2
AD-17 ^a	140	B	0	5,459	15	17	16.5 - 19		SC	P-UNAPP	OB	1	100	-5	-23
AD-18 ^a	186	B	0	6,644	17	18	17.9 - 21		SC	P-UNAPP	OB	1	100	-5	-19
AD-19	254	A	28	13,481	19	20	19.6 - 22.5		SC	P-UNAPP	OB	1	100	14	2
BD-1 ^a	169	B	0	2,000	1	1	1.8 - 8		SC	P-UNAPP	OB	1	100	-5	-5
BD-2 ^a	115	B	0	1,000	1	2	1.8 - 8		SC	P-UNAPP	OB	1	100	-5	-5

Continued on next page.

WASTE DISPOSAL DATA FOR CONCEPTUAL PLAN, EST-D-CP

(Prepared by DNR staff)

SITE CODE	Acreage	Above/ Below Grade	Average Dam Height (ft)(1)	Volume Available for Disposal (acre-feet)	Mining		Storage		Method of Disposal (2)	Status (3)	Type of Cap (if any) (4)	Approximate Cap Thickness (ft)	Percent Area Covered by Cap	Height Above Grade After Reclamation (ft)	Height Above Grade After Consolidation (ft)
					Begins (mine life years)	Ends (mine life years)	Begins (mine life years)	Ends (mine life years)							
BO-3	151	A	27	7,638	2	- 3	2.7	- 6.7	SC	P-UNAPP	OB	1	100	11	6
BO-4	193	A	27	9,256	3	- 4	3.8	- 8	SC	P-UNAPP	OB	1	100	12	7
BO-5	92	A	30	5,916	4	- 5	5	- 10	SC	P-UNAPP	OB	1	100	15	0
BO-6	146	A	30	10,168	5	- 6	6	- 11	SC	P-UNAPP	OB	1	100	16	0
BO-7	152	A	30	10,541	5	- 7	6.9	- 12	SC	P-UNAPP	OB	1	100	16	0
BO-8	139	A	30	8,100	7	- 8	7.9	- 11.9	SC	P-UNAPP	OB	1	100	15	2
BO-9	135	A	30	7,254	8	- 9	9.2	- 11	SC	P-UNAPP	OB	1	100	13	0
BO-10	180	A	30	10,725	9	- 10	10	- 14	SC	P-UNAPP	OB	1	100	16	2
BO-11	182	A	23	6,576	10	- 11	11.3	- 13	SC	P-UNAPP	OB	1	100	7	1
BO-12	79	A	28	4,484	12	- 12	12.3	- 16.8	SC	P-UNAPP	OB	1	100	14	1
BO-13	226	A	28	12,900	13	- 14	13.9	- 19	SC	P-UNAPP	OB	1	100	15	1
BO-14	112	A	28	6,860	12	- 14	14.5	- 17	SC	P-UNAPP	OB	1	100	13	0
BO-15	159	A	23	5,704	15	- 16	15.7	- 19	SC	P-UNAPP	OB	1	100	11	5
BO-16	181	A	23	7,680	16	- 17	16.8	- 2.2	SC	P-UNAPP	OB	1	100	9	2
BO-17	151	A	23	9,150	15	- 17	17.6	- 22	SC	P-UNAPP	OB	1	100	11	0
BO-18	131	A	23	7,620	18	- 18	18.4	- 22.1	SC	P-UNAPP	OB	1	100	10	0
BO-19	168	A	23	8,664	19	- 19	19.3	- 22.5	SC	P-UNAPP	OB	1	100	11	2

Total 6,179

FOOTNOTES:

- (1) Dam Height Range: feet above natural grade.
 - (2) Method of Disposal: SC - sand-clay mix.
 - (3) Status: U - under construction; P - proposed; APP - covered by an approved reclamation program; UNAPP - not covered by an approved reclamation program.
 - (4) Type of Cap: OB - overburden; ST - sand tailings; C - clay; "-" means mixed with; "/" means over.
- * Reclamation of these clay disposal sites will create a reservoir or two lakes.

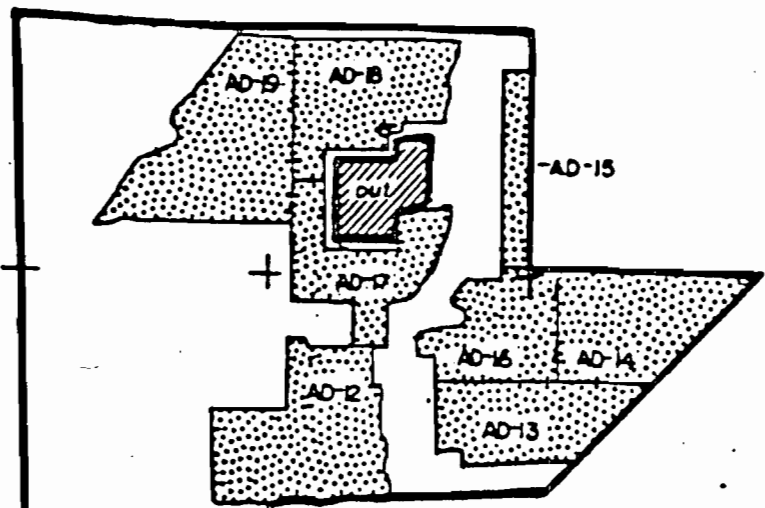
VEGETATION ACREAGES FOR LAND MINED OR DISTURBED

Estech, Inc.

Duette Mine

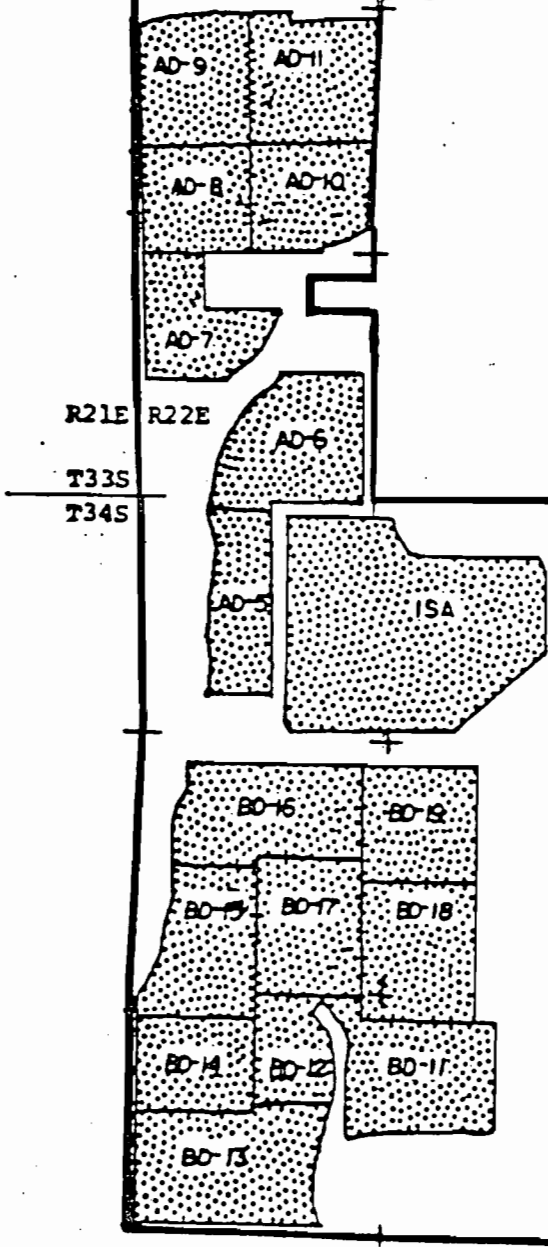
Conceptual Plan

FLUCCS Category	Description	Pre-mining Vegetation		Post-Reclamation Vegetation	
		Acreage	(%)	Acreage	(%)
210	Cropland and Pastureland	1,854	22	5,524	65
230	Citrus Groves	113	1	25	0
330	Mixed Rangeland	5,126	61	17	0
421	Xeric Oak	429	5	0	0
430	Mixed Forest	0	0	618	7
520	Lakes	0	0	1,053	13
620	Wetland - Hardwood Forest	432	5	441	5
640	Wetland - Herbaceous	532	6	808	10
Total		8,486	100	8,486	100

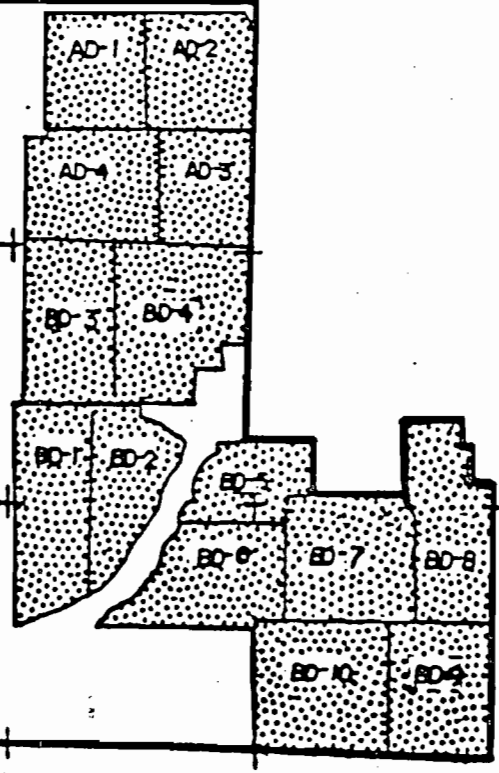


CLAY DISPOSAL MAP

(All clay will be disposed of as sand-clay mix.)



ESTECH, INC.
DUETTE MINE
CONCEPTUAL PLAN



North



0 2000

1000 3000
scale in feet

THIS MAP WAS PREPARED BY DNR STAFF.

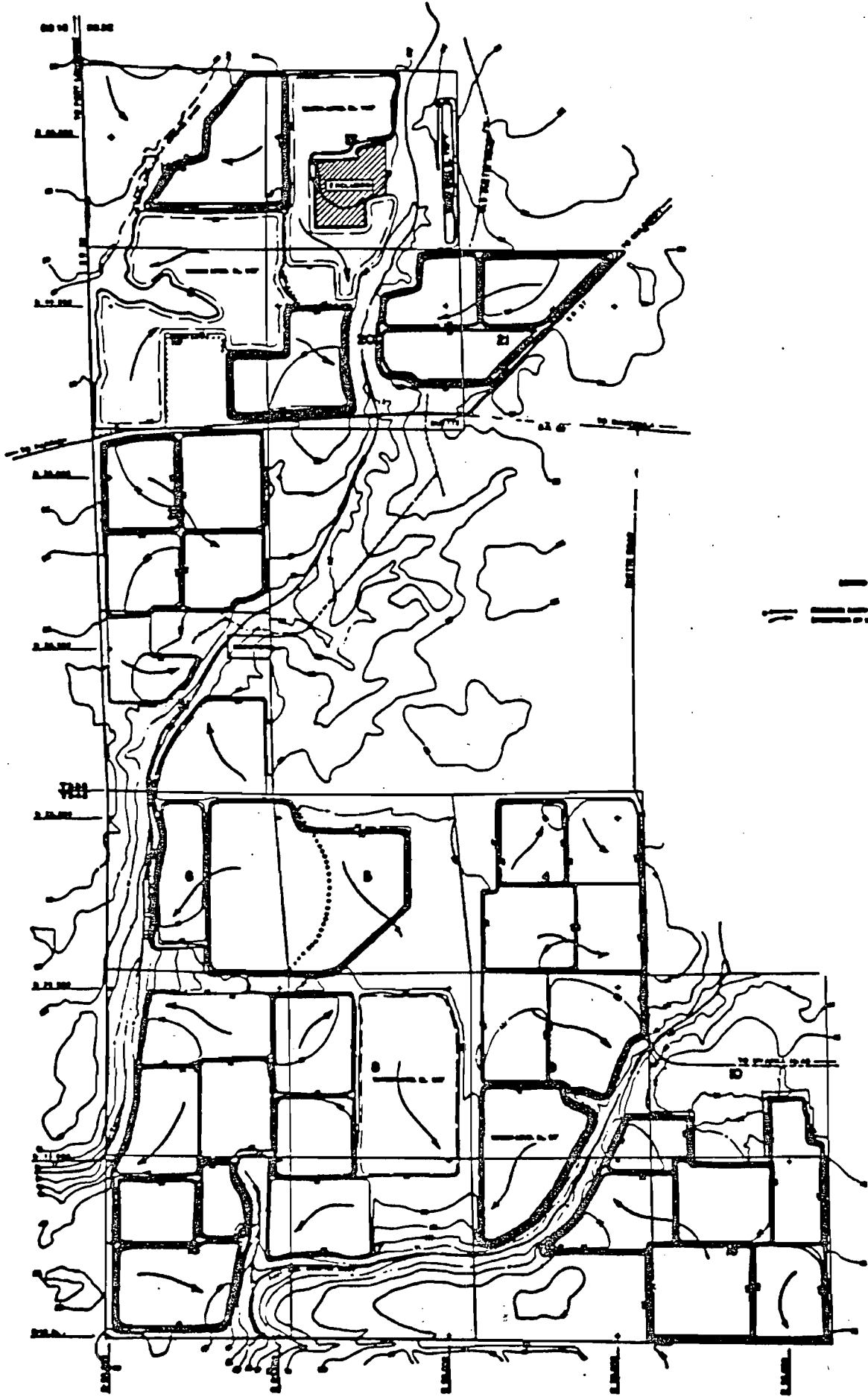
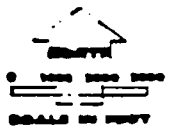


FIGURE 1-8

CONCEPTUAL POST MINING TOPOGRAPHY AND SURFACE DRAINAGE

SLATTE MINE, BOSTON COAL



DATE: APRIL 20, 1988
BY: [Signature]

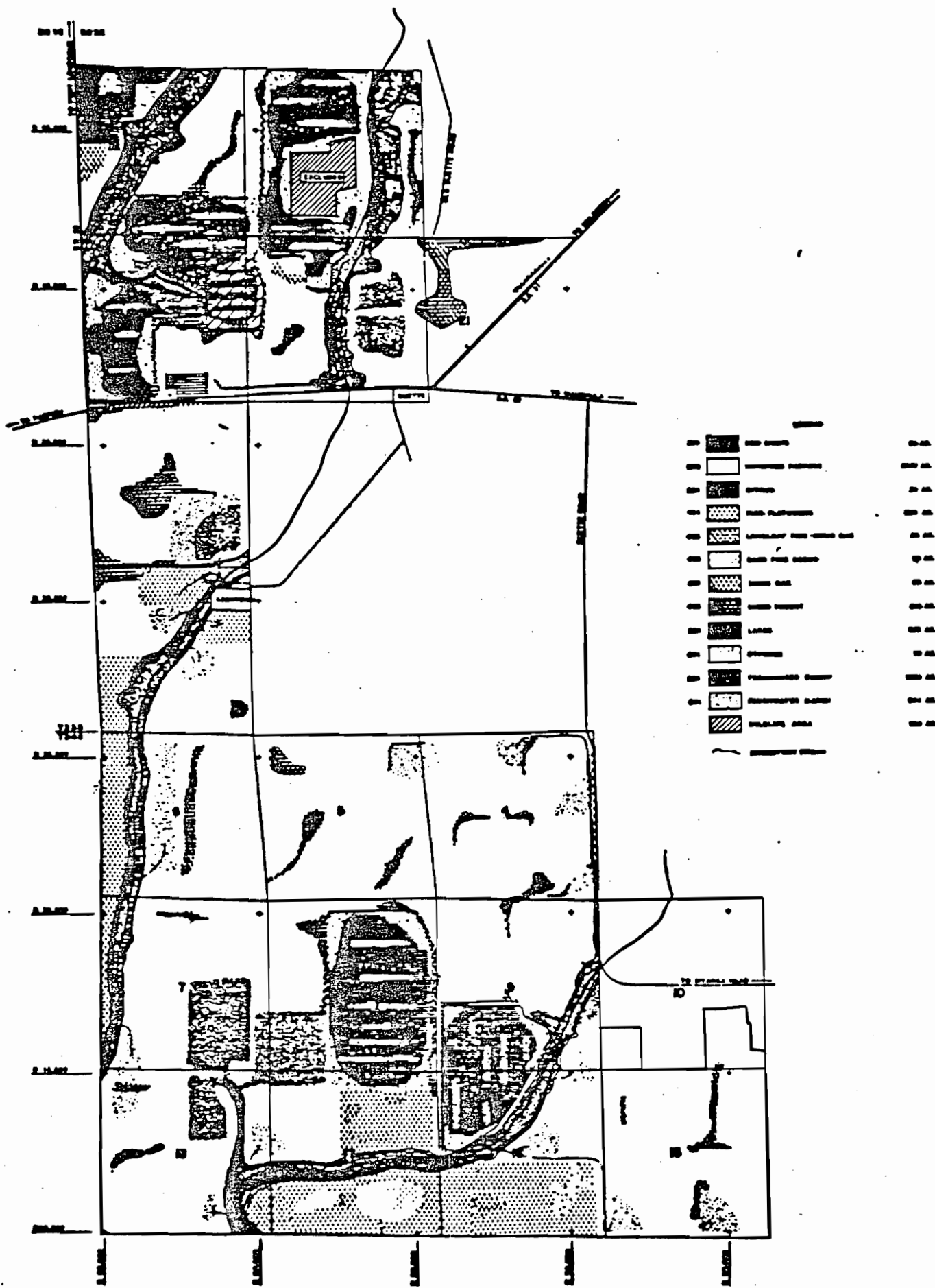


FIGURE 1-1
**CONCEPTUAL POST MINING
LAND USE AND VEGETATION**
BLAETTIS MINE, BITTON COAL





State of Florida
DEPARTMENT OF NATURAL RESOURCES

DR. ELTON J. GISSENDANNER
Executive Director
Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard, Tallahassee, Florida 32303

BOB GRAHAM
Governor
GEORGE FIRESTONE
Secretary of State
JIM SMITH
Attorney General
GERALD A. LEWIS
Comptroller
BILL GUNTER
Treasurer
DOYLE CONNER
Commissioner of Agriculture
RALPH D. TURLINGTON
Commissioner of Education

Please Reply to: BUREAU OF MINE RECLAMATION
903 WEST TENNESSEE STREET
(Corner of Tennessee and Woodward Streets)
TALLAHASSEE, FLORIDA 32304

October 6, 1983

Mr. Thomas Reese
Attorney at Law
123 Eight Street North
St. Petersburg, Florida 33701

Dear Mr. Reese:

RE: EST-D-CP

Be advised that the Estech Duetta Mine Conceptual Plan agenda item has been revised. Please substitute the enclosed revised page to update your copy of the agenda item.

Sincerely,

Greg Daugherty
Environmental Supervisor
Bureau of Mine Reclamation

GD/zkh

Enclosure

DIVISIONS / ADMINISTRATION BEACHES AND SHORES LAW ENFORCEMENT MARINE RESOURCES
RECREATION AND PARKS RESOURCE MANAGEMENT STATE LANDS

EXHIBIT B

SPECIAL PERMIT CONDITIONS

1. RECLAMATION OF ALL SAND-CLAY MIX WASTE DISPOSAL AREAS SHALL COMMENCE ONLY WHEN THE CALCULATED CONSOLIDATION IS COMPLETED. REMANENT DIKES SHALL BE GRADED DOWN TO CAP THE SAND-CLAY MIX SURFACE AND TO FLATTEN REMAINING DAM SLOPES. IN ACCORDANCE WITH THIS CONDITION, THE APPLICANT SHALL REVISE THE POST RECLAMATION TOPOGRAPHY TO RESTORE PRE-MINING DRAINAGE SYSTEMS. THIS SHALL NOT PREVENT THE APPLICANT FROM PERFORMING ANY WORK, SUCH AS PLANTING GRASS OR OTHER COVER, TO STABILIZE THE AREA.
2. HERBACEOUS AND WOODED WETLANDS SHALL BE ESTABLISHED USING THE BEST AVAILABLE TECHNOLOGY, PURSUANT TO SECTION 16C-16.051(10)(D), F.A.C. AN ATTEMPT SHALL BE MADE TO ESTABLISH A VARIETY OF INDIGENOUS SPECIES IN BOTH HERBACEOUS AND WOODED WETLANDS. DETAILED INFORMATION FOR WETLAND RESTORATION AND RECLAMATION SHALL BE PROVIDED IN FUTURE ANNUAL APPLICATIONS.
3. THE APPLICANT SHALL REVISE LAKE AND WETLAND DESIGNS TO MORE CLOSELY RESEMBLE NATURAL SYSTEMS AND ELIMINATE SQUARED-OFF CORNERS.
4. REVISIONS REQUIRED BY SPECIAL PERMIT CONDITIONS ONE AND THREE SHALL BE SUBMITTED TO THE BUREAU FOR REVIEW AND APPROVAL WITHIN ONE HUNDRED TWENTY DAYS FOLLOWING THE APPROVAL OF THIS CONCEPTUAL PLAN.

STATE OF FLORIDA
DEPARTMENT OF NATURAL RESOURCES

RECEIVED
11-7-83

Manatee County,)
a political subdivision)
of the State of Florida,)
)
Petitioner,)
)
v.) Case No. _____
)
Florida Department of)
Natural Resources and)
Estech, Inc.,)
)
Respondents.)
_____)

PETITION FOR FORMAL PROCEEDINGS
UNDER SECTION 120.57,
FLORIDA STATUTES

Manatee County, Florida, files this petition for formal proceedings pursuant to sections 120.57(1) and 211.32, Florida Statutes, and chapters 16C-16 and 28-5, Florida Administrative Code, in opposition to proposed agency action by respondent Florida Department of Natural Resources ("DNR"). Respondent DNR proposes to approve a conceptual reclamation plan for Estech Inc.'s proposed phosphate mine in eastern Manatee County, almost all of which lies in the watershed of Lake Manatee, the sole source of drinking water for approximately 250,000 people in Manatee and Sarasota Counties. This petition seeks a formal hearing to determine whether Estech's conceptual reclamation plan satisfies the reclamation and restoration requirements of section 211.32, Florida Statutes, and chapter 16C-16, Florida Administrative Code.

I.

GENERAL ALLEGATIONS

(1) Petitioner, Manatee County, is a political subdivision of the State of Florida responsible for protecting the health, safety, and welfare of the public. Manatee County's post office address is Manatee County Courthouse, Post Office Box 1000, Bradenton, Florida 33506.

(2) The affected agency is respondent DNR, an agency of the State of Florida charged with responsibility over the reclamation and restoration of phosphate mining under section 211.32, Florida Statutes. DNR's address is 3900 Commonwealth Boulevard, Tallahassee, Florida 32303.

(3) Respondent Estech, Inc., is a corporation proposing to mine phosphate in eastern Manatee County, Florida. Estech's address is First Commercial Bank Building, 410 Cortez Road West, Bradenton, Florida 33507.

(4) The DNR identification number assigned to the permit at issue is "EST-D-CP." Representatives of Manatee County first received notice of DNR's recommended approval, which is attached hereto as Exhibit A, by obtaining a copy thereof from Estech on October 14, 1983. The notice of recommended approval is dated October 4, 1983, and states that a petition for a hearing must be filed within twenty-one days of receipt of the notice. DNR issued a revised notice by letter dated October 6, 1983, a copy of which is attached hereto as Exhibit B.

II.

ESTECH'S PROPOSED MINING AND RECLAMATION

(5) This proceeding concerns Estech's proposal to conduct large-scale phosphate mining and reclamation on 10,524 acres of land in eastern Manatee County. Estech proposes to strip mine approximately seventy-million tons of phosphate rock by excavating as much as one hundred feet of earth, thereby removing the natural surficial aquifer in the process. Relying on unproven reclamation methods, Estech plans to replace the surficial aquifer with thirty five to forty immense pits that will be filled with waste clays, sand tailings, and all the pollutants and wastes resulting from the mining and processing of phosphate, including but not limited to: volatile organic compounds; sulfuric acid; organic compounds such as fuel oil, kerosine, and tall oil; solvents; and flocculants.

(6) Estech's proposed reclamation also entails the impoundment of massive quantities of polluted process water, which Estech is prohibited from discharging to surface water by Department of Environmental Regulation permit conditions resulting from Estech's failure to demonstrate in prior section 120.57 proceedings that its process water could satisfy chapter 17-3 standards. Thus, this proceeding will determine the ultimate fate of thousands of acres of the watershed and ground water after Estech, Inc., is through with mining in Manatee County.

(7) Section 211.32(1)(a), Florida Statutes, requires that persons proposing to mine phosphate rock institute and complete a reclamation and restoration program that complies with rules adopted by DNR. The statutory standards prescribed for DNR's rules include:

1. Control of the physical and chemical quality of the water draining from the area of operation;

2. Soil stabilization, including contouring and vegetation;

3. Elimination of health and safety hazards;

4. Conservation and preservation of remaining natural resources; and

5. Time schedule of the completion of the program and the various phases thereof.

(8) Pursuant to section 211.32, Florida Statutes, DNR adopted reclamation and restoration rules in chapter 16C-16, Florida Administrative Code. Rule 16C-16.041, Florida Administrative Code, requires mine operators to file a conceptual plan complying with DNR's reclamation and restoration rules at least six months before commencement of mining operations.

(9) Estech submitted a conceptual reclamation plan to DNR on or about March 28, 1983. After DNR notified Estech by letter dated April 18, 1983, that its application was incomplete, Estech submitted additional information as part of its conceptual plan on August 30, 1983.

(10) Despite the many deficiencies in Estech's reclamation plan that were brought to DNR's attention by Manatee County, other governmental entities, and individuals, DNR staff recommended that the Governor and Cabinet, sitting as the Department of Natural Resources, approve the conceptual plan with conditions. See Exhibit A. After notice of the recommended approval was issued, DNR staff revised its recommendation on October 6, 1983, by deleting one of the recommended conditions.

(11) On October 18, 1983, the Governor and Cabinet adopted the recommendations of its staff and approved Estech's conceptual reclamation plan.

(12) Estech's conceptual reclamation plan and DNR's proposal to approve that plan violate the reclamation and restoration requirements of section 211.32, Florida Statutes, and chapter 16C-16, Florida Administrative Code, and will, among other things, impair the environment and natural resources; threaten the existing and future drinking water supplies of the people of the region; reduce the usefulness of the land; and diminish the wildlife values of the area.

III.

MANATEE COUNTY'S SUBSTANTIAL INTERESTS

(13) As a political subdivision of the State of Florida, Manatee County is responsible for protecting and maintaining the public health, safety, and welfare. This creates in the County a substantial interest in protecting the County's environment and natural resources, including but not limited to public drinking water supplies. Estech's proposed phosphate mining and reclamation -- which involve the creation and deposition of mining wastes exceeding state pollution standards -- will be conducted on more than ten-thousand acres of land in northeastern Manatee County, approximately eighty-five percent of which lies in the watershed of the Lake Manatee Reservoir.

(14) The Lake Manatee Reservoir, which is owned by Manatee County and operated by the Manatee County Utilities Department,

serves as the sole source of drinking water for the urbanized portions of unincorporated Manatee County, the City of Anna Maria, the City of Holmes Beach, the City of Bradenton Beach, the City of Palmetto, the Town of Longboat Key, and certain urbanized portions of the northern unincorporated Sarasota County. The Lake Manatee Reservoir regularly serves as the sole source of drinking water for a resident population of approximately 250,000 people, and also supplements the drinking water supply of the City of Bradenton.

(15) The source of the waters in the Lake Manatee Reservoir, and, therefore, the source of the drinking water supply for the people of Manatee and Sarasota Counties, is the surface and ground water of the Lake Manatee watershed. Furthermore, in addition to contributing to Lake Manatee and its tributaries, the ground water aquifers that will be affected by Estech's mine also serve as existing and future sources of water supply.

(16) Estech's proposed mining and reclamation will have unavoidable large-scale and long-term impacts on the environment, natural resources, and hydrologic features of the watershed of Lake Manatee. Because the Lake Manatee watershed and its surface and ground water are the sole source of drinking water for the above-described people, Manatee County's substantial interests are and will be affected by DNR's approval of Estech's inadequate conceptual reclamation plan.

IV.

DISPUTED ISSUES OF MATERIAL FACT

(17) The disputed issues of material fact herein include, but are not limited to:

(a) Whether Estech demonstrated that all waters of the State on or leaving its property will meet applicable water quality standards of chapter 17-3, Florida Administrative Code.

(b) Whether DNR unlawfully disregarded its rules by failing and refusing to determine whether all waters of the state

on or leaving Estech's property would meet the water quality standards of chapter 17-3, Florida Administrative Code.

(c) Whether Estech demonstrated that water within all wetlands and waterbodies will be of sufficient quality to allow recreation or support fish and other wildlife.

(d) Whether Estech demonstrated that lands reclaimed after mining will be sufficiently stabilized to prevent adverse flooding, drainage, and other impacts.

(e) Whether Estech demonstrated that it can reclaim and restore the mine in accordance with chapter 16C-16 while simultaneously preventing all surface water discharges as required by state permits.

(f) Whether Estech demonstrated that the original surface and ground water drainage patterns will be restored to the greatest extent possible.

(g) Whether Estech demonstrated that natural base flow to tributaries will not be unacceptably impacted by Estech's substitution of the natural surficial aquifer with sand/clay mix.

(h) Whether Estech demonstrated that the land and water remaining after reclamation, including the newly created 1030 acres of lakes, will be hydrologically equivalent to premining conditions.

(i) Whether Estech's reclamation plan will adequately conceal the effects of surface mining.

(j) Whether Estech demonstrated that all waste clays will be disposed of below grade to the greatest extent practical.

(k) Whether Estech's reclamation plans, including but limited to its proposal to replace native rangeland with "improved" pasture, will adversely affect fish and wildlife values and habitat.

(l) Whether Estech demonstrated that it will restore and revegetate wetlands areas in accordance with best available technology.


(m) Whether Estech demonstrated that mined areas will be returned to useful purposes.

(n) Whether runoff from reclaimed areas will cause violations of applicable water quality standards.

(o) Whether Estech demonstrated and DNR properly determined that all other applicable statutory and regulatory standards for reclamation and restoration have been fulfilled.

WHEREFORE, Manatee County respectfully requests that a formal Section 120.57(1) proceeding be conducted to formulate the agency action disputed herein, and that a determination be made that the conceptual reclamation plan at issue be denied.

PEEPLS, EARL, REYNOLDS & BLANK
Attorneys for Manatee County
One Biscayne Tower, Suite 3636
Two South Biscayne Boulevard
Miami, Florida 33131
Telephone: (305) 358-3000



William F. Tarr

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that copies of the foregoing have been provided by U.S. Mail this 3rd day of November, 1983, to Thomas W. Reese, Esquire, 123 Eighth Street North, St. Petersburg, Florida 33701; Wade L. Hopping, Esquire, Hopping, Boyd, Green & Sams, P. O. Box 6526, Tallahassee, Florida 32301; Robert L. Rhodes, Esquire, Holland & Knight, P. O. Drawer BW, Lakeland, Florida 33802; and Debra Getzoff, Esquire, 3900 Commonwealth Boulevard, Suite 1003, Douglas Building, Tallahassee, Florida 32303.

PEEPLS, EARL, REYNOLDS
& BLANK, P.A.
Attorneys for Manatee County
One Biscayne Tower, Ste 3636
Two South Biscayne Boulevard
Miami, Florida 33131



William F. Tarr

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

KAHEL		FANCY		STARNES	
BLOMMEL		THOMAS		MARTY HALL	
BARKER		GEORGE		MARSHALL MOTT-SMITH	
J. ROGERS		PALAGYI			

REMARKS

FYI

Path - Estech PSD permit
copy detent
sent 8/30/82
PA

~~Bill~~ BT

File **File**

Is this date consistent with state permit?
do you have any comment on this?
BT

INFORMATION

REVIEW & RETURN

REVIEW & FILE

INITIAL & FORWARD

DISPOSITION

REVIEW & RESPONSE

PREPARE RESPONSE

FOR MY SIGNATURE

FOR YOUR SIGNATURE

LET'S DISCUSS

SET UP MEETING

INVESTIGATE & REPT

INITIAL & FORWARD

DISTRIBUTE

CONCURRENCE

FOR PROCESSING

INITIAL & RETURN

FROM

STEVE SMALLWOOD

DATE

8-16-82

PHONE

JK



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30385

AUG - 5 1982

REF: 4AW-AM

DER
AUG 21 1982
BAQ

Mr. Robert L. Rhodes, Jr.
Holland and Knight
P. O. Drawer BW
Lakeland, Florida 33802

Dear Mr. Rhodes:

This is in response to your June 10, 1982, request for an extension of Estech, Inc's. Prevention of Significant Deterioration (PSD) permit, which was issued on February 2, 1981. Specifically, you requested an extension of the "commence construction" deadline for Estech's proposed phosphate rock mine and processing plant to be located in Manatee County, Florida, until August 2, 1985. That date is three years beyond the original permitted expiration date.


We agree that Estech has been the recipient of several permitting delays. However, the burden of obtaining all of the necessary permits and licenses lies solely with Estech and is not the responsibility of EPA.

It is EPA's determination that Estech, Inc., has satisfactorily showed just cause for a permit extension, due mainly to regulatory delays extraneous to the PSD permitting process. Although it remains this Region's policy to discourage PSD permit extensions, due to the problems of increment reservation that are created by such actions, EPA agrees to allow, in this case, a permit extension to Estech, Inc., for an additional 18 months (February 2, 1984). By taking this position, the Region is able to discourage sources from requesting excessively long permit extensions and thereby tying up increment allocations unfairly, so as to prevent industrial growth from other companies in this and other areas.

As of the date of this letter, permission is hereby granted to Estech, Inc., extending its commence construction date to February 2, 1984. This letter should be attached to and become a binding part of the original PSD permit that was issued by this Agency on February 2, 1981.

If you have any questions concerning this matter, please contact Mr. James T. Wilburn, Chief, Air Management Branch, Air and Waste Management Division, EPA Region IV.

Sincerely yours,

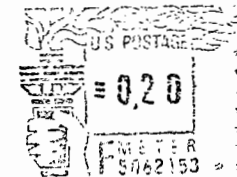

Charles R. Jeter
Regional Administrator

cc: Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV
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ATLANTA, GEORGIA 30365

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