

DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#000000028264 C05# DER PROCESSOR:7 DER OFFICE:WPB  
 FILE NAME:MOTOROLA, INC. DATE FIRST REC: 02/20/80 APPLICATION TYPE:AC  
 APPL NAME:GESBOCKER, JOHN B. APPL PHONE:(404)881-9880 PROJECT COUNTY:50  
 ADDR:880 W. PEACHTREE ST. N.W. CITY:ATLANTA ST:GAZIP:30309  
 AGNT NAME:DOLLAR, JOHN R. AGNT PHONE:(305)295-4131  
 ADDR:4720 N. ORANGE BLOSSOM TRAIL CITY:ORLANDO ST:FLZIP:32804

ADDITIONAL INFO REQ: / / / / / / REC: / / / / / /  
 APPL COMPLETE DATE: / / COMMENTS NEC:Y DATE REQ: / / DATE REC: / /  
 LETTER OF INTENT NLC:Y DATE WHEN INTENT ISSUED: / / WAIVER DATE: / /

HEARING REQUEST DATES: / / / / / /  
 HEARING WITHDRAWN/DENIED/ORDER -- DATES: / / / / / /  
 HEARING ORDER OR FINAL ACTION DUE DATE: / / MANUAL TRACKING DESIRED:N

THIS RECORD HAS BEEN SUCCESSFULLY ADDED

FEE PD DATE#1:02/20/80 \$0020 RECEIPT#000033525 REFUND DATE: / / REFUND \$  
 FEE PD DATE#2: / / \$ RECEIPT# REFUND DATE: / / REFUND \$  
 APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:AC DATE:02/20/80  
 REMARKS:LOCATED AT N.W. 22ND AVE. @ CONGRESS AVE. CIRCUIT BOARD ASSEMBLY PLANT,  
 50,000 BOARDS/YR. UTM = 17589.200E / 2936.800N. LAT/LON = 30-05-00N. /  
 26-32-30W.

DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

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 REMARKS:LOCATED AT N.W. 22ND AVE. @ CONGRESS AVE. CONVULORIZED WAVE SOLDER AND  
 DEGREASING SYSTEM #1. UTM = 17589.200E. / 2936.800N. LAT/LON = 30-05-00N. /  
 26-32-30W.

3301 GUN CLUB ROAD  
P.O. BOX 3858  
WEST PALM BEACH, FLORIDA 33402



BOB GRAHAM  
GOVERNOR

JACOB D. VARN  
SECRETARY

WARREN G. STRAHM  
SUBDISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTH FLORIDA SUBDISTRICT

October 10, 1979

Palm Beach County  
AP - Motorola, Inc.  
(Proposed Facility)

Ms. Mary Lou Lackey, Manager  
Facility Planning  
Motorola, Inc.  
8000 West Sunrise Boulevard  
Fort Lauderdale, Florida 33322

Dear Ms. Lackey:

Re: Motorola, Boynton Beach - Proposed

In your letter of October 3, 1979 it is indicated that the potential emissions of volatile organic compounds (VOCs) from the subject facility may be in excess of 125 tons/year. Under current policy the VOC air pollution permitting for this facility will be processed by the Department of Environmental Regulation, Bureau of Air Quality Management in Tallahassee.

We suggest that you contact Air Permitting, Bureau of Air Quality Management (904/488-1344) for detailed information on the current VOC air permitting requirements for your facility prior to filing a permit application. Applications should be mailed to:

Department of Environmental Regulation  
Bureau of Air Quality Management, Air Permitting  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

A filing fee of twenty dollars is required for each application. Please make the check payable to the State of Florida Department of Environmental Regulation. Please note that the complex source application shall still be submitted to this office.

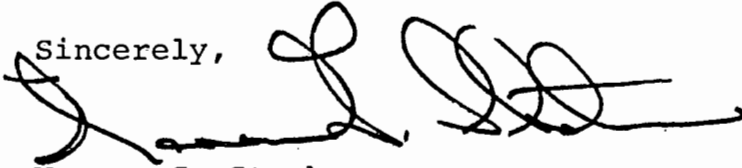
By copy of this letter we are transmitting copies of our previous VOC communications to the Bureau of Air Quality Management for their consideration.

Page 2

Ms. Mary Lou Lackey  
October 10, 1979

If you have any questions regarding this letter please do not hesitate to call Mr. Scott Benyon of this office, telephone 305/689-5800.

Sincerely,



Warren G. Strahm  
Subdistrict Manager

WGS:tts

cc: Palm Beach County Health Department, with enclosures  
Dr. J. P. Subramani, Chief, Bureau of Air Quality Management,  
with enclosures  
Jim Estler, Office of Deputy Director, DER/Tallahassee  
Steve Fox/Sonny Vergara, DER/Tallahassee  
Phil Edwards, DER/Ft. Myers  
Bruce Johnson, DER/Tallahassee

STATE OF FLORIDA  
DEPT. OF ENVIRONMENTAL REGULATION  
P. O. BOX 3858  
WEST PALM BEACH, FL 33402

FILL

September 7, 1979

Ms. Mary Lou Lackey  
Motorola, Inc.  
8000 West Sunrise Boulevard  
Fort Lauderdale, Florida 33322

Dear Ms. Lackey:

As you are aware, applications for permits from this Department are required for certain features of the proposed Boynton Beach Motorola facility. To establish the nature of the applications in question we have participated in several pre-application meetings with your company and its consulting engineers, visited the prospective facility site and attended a tour of the manufacturing processes at an existing Motorola facility in Plantation, Florida. Based on our observations to date, the following applications should be submitted to this Department:

1. Complex Source - One application covering the Phase I and II parking facilities and associated highway improvements.
2. Air Emission - One application for each of the following:
  - a. Degreaser (each)
  - b. Wave solderer (each)
  - c. Miscellaneous - other VOC\* emission sources
3. Dredge & Fill - One application covering the installation of the drainage headwall structure in Canal E-4 and the placement of fill material waterward of the Ordinary High Water Line in the east/west drainage canal bisecting the site.

4. Domestic Wastewater Collection System -  
One application covering the Phase I  
domestic collection system.

At the facility tour in Plantation on August 28, 1979, you agreed to supply us with information regarding the quantity, chemical composition and method of handling of the solid and liquid wastes which you expect to be generated at the Boynton Beach facility. Upon receipt of that analysis we will inform you whether solid waste or industrial wastewater applications should be submitted. You also agreed to quantify several miscellaneous volatile organic compounds used in your manufacturing process, e.g. cooling water additives, latex used in masking, resin in on-line soldering, alcohol for cleaning, releases from vented VOC storage, etc. This information will be used to clarify the sources that should be included in the application for air emission/miscellaneous source(s).

Compliance with the South Florida Water Management District criteria and procedures outlined in Chapter 16K, Florida Administrative Code (F.A.C.), will provide the Department with reasonable assurance that the proposed drainage discharge to Canal E-4 will not have a significant impact on the water quality and designated use of that water body. Pursuant to Section 17-4.243, F.A.C., you would not be subject to Department licensing for the discharge in question.

It is also necessary to secure Department approval of your spill containment procedures. This process can be initiated by the submittal of a narrative describing the provisions which Motorola plans to implement pertaining to the subject of spill control. The control of spills resulting from a disposal or storage accident, fire and fire flow into the facility should be addressed.

Final agency action on the referenced applications and approval is not required prior to groundbreaking on the new facility. Submittals by Motorola should be made well in advance of source/structure construction commencement in order to allow lead time for permit processing and source/structure modification, if necessary.

In some cases local governments require, as a prerequisite to building permit issuance, acquisition of all required State authorizations. As this would significantly impact your scheduling process, I suggest you contact the appropriate local government unit(s) for further information.

The City of Boynton Beach must construct a new force main in order to provide your facility with domestic wastewater service. The force main will require a collection/transmission construction permit and a dredge and fill permit(s) from this Department. These permits must be obtained, by the City, prior to initiation of construction on the force main. You may wish to direct attention to this situation as it also has potential to impact your scheduling process.

Page 3  
Ms. Mary Lou Lackey  
September 7, 1979

In conclusion I wish to emphasize the need for a free informational exchange between Motorola and the Department, particularly in the area of the manufacturing process. Such an exchange can keep misunderstandings to a minimum.

Should questions or concerns arise regarding this matter, do not hesitate to contact me. My staff is available to meet with you on rather short notice, in the Boynton Beach area as often as once a month, should it become necessary.

Sincerely,

Warren G. Strahm  
Subdistrict Manager

WGS:sbs

cc: Steve Fox/Sonny Vergara, DER/Tallahassee  
Phil Edwards, DER/Ft. Myers  
Bruce Johnson, DER/Tallahassee  
Frank Gargiulo, Palm Beach County Health Department  
Sam Shannon, Treasure Coast Regional Planning Council



October 3, 1979

10

DIR-MPB	Copy ✓	Route #
	Section A	
DATE	TIME	
BY	BY	
BY	BY	
REMARKS:		
<i>Fony</i>		

Mr. Warren G. Strahm, Subdistrict Manager  
 Florida Department of Environmental Regulation  
 South Florida Subdistrict  
 3301 Gun Club Road  
 P.O. Box 3858  
 West Palm Beach, Florida 33402

Dear Mr. Strahm:

In response to your letter of September 7, 1979, the information contained herein relates to the volume and nature of the chemicals and wastes which are expected to be used and/or generated at Motorola's proposed facility in Boynton Beach, Florida.

The following chemicals, which are defined as volatile organic compounds (V.O.C.), will be used:

<u>Chemical</u>	<u>Weekly Usage</u>	<u>Pounds</u>
Plio Bond Adhesive	18 oz.	1.2 oz.
Bond-Solv Solvent	51 oz.	3.2 lb.
Isopropyl Alcohol	134 gal.	1018 lb.
Trichlorethylene	22.6 gal.	271.2 lb.
Acetone	233 gal.	1482 lb.
Red Lacquer	1/2 pt.	-
Green Lacquer	1/2 pt.	-
Eastman 910 Fast Set	24 oz.	1.5 lb.
Plio-Bond	1 oz.	0.1 lb.
<i>Trichlorotrifluoroethane?</i> Freon TMS	86 gal.	997.6 lb.
Chlorethene NV (Trichorethane)	120 gal.	1272 lb.
Kester #1547 Flux	13 gal.	91 lb.

TOTAL V.O.C. = 5,137 lb./week

Some of these chemicals are partially reclaimed, and the total V.O.C. level is therefore somewhat less than the above. Approximately 15 percent of the Freon TMS and 50 percent of the Kester #1547 Flux are reclaimed by a licensed and State certified scavenger company. Therefore, the total V.O.C. is actually:

TOTAL V.O.C. = 4,942 lb./week

(-Freon? + Chloroethane)

4,095 lb./week  
 52 wks/yr

106.5 TPY VOCs

102.6 TPY  
~~95.7 TPY~~

RECEIVED

OCT 4 1979

> 50 TPY Dept. of Environmental Reg.  
 West Palm Beach

In addition to the V.O.C.'s listed above, a variety of other chemicals which are not classified as V.O.C.'s will be used. Those which are used on a regular basis or in any significant quantity are:

<u>Chemical</u>	<u>Weekly Usage</u>
RTV 3140	45 oz.
RTV 734	3 oz.
Loctite Screw Lock	30 cc.
Loctite 422	21 oz.
Glyptal Cement	3 qts.
Latex Solder Mask	92.5 oz.
Eastman 910 Adhesive	33 oz.
Stellar Blue Spray	1/2 pt.
Stellar Black Spray	1/2 pt.
Scotchcast Resin	14 lb.
RTV 3144	30 oz.
RTV 732	24 oz.
Loctite 222	5 cc.
Silver Paint	16 oz.
Hollis Oil	28 gal.
<u>THIS IS A VOC!</u> Kerosene	25 oz.
Sulphur Free Cutting Oil	12 oz.
"Kleen Kool" Water Soluble Oil	25 oz.
"Melkut" Metal Lubricant 5591	12 oz.
"Trim Mist" Water Soluble Oil	12 oz.

As mentioned previously, liquid wastes (Freon TMS, Kester #1547 Flux and Hollis Oil) will be containerized for pick-up by a licensed and State certified scavenger company. Solid waste will be picked-up by the City of Boynton Beach.

If you need any additional information regarding our projected usage, please contact our office.

Sincerely,



Mary Lou Lackey  
Manager  
Facility Planning

cc: Jim Hunt, Motorola  
Tom McDougall, Motorola  
Fred Hilton, Motorola  
Jack Gesbocker, Heery & Heery  
Jim Show, Environmental Analysis & Design, Inc.  
Garth Horne, Post, Buckley, Schuh & Jernigan, Inc.



8-28-79

PLANTATION PLANT  
INSPECTION WRT  
ONLY THOSE PORTIONS  
APPLICABLE TO THE  
PROPOSED BOYNTON PLANT

MOTOROLA - AIR

2-wks

NO BOILERS OR INCINERATORS

KITCHEN USE OF GAS OR OTHER FUEL TO BE STATED.

INFO. TO BE PROVIDED:

ONLINE  
WAVE SOLDERING  
DEGREASER  
ONLINE

1. CHEM. COMPOSITION OF COOLING WATER ADDITIVES (AMTS. USED?)  
PROPORTION AS VOC'S

2. CHEM. COMPOSITION OF SOLVENT IN LATEX USED TO PREVENT SOLDER FROM PLUGGING SPECIFIED HOLES ON THE CIRCUIT BOARDS. (AMTS. USED?)  
PROPORTION AS VOC'S

3. CHEM. COMPOSITION OF FLUX<sup>SOLVENT</sup> TO BE VERIFIED AS:  
40% MEK (methyl-ethyl ketone) = VOC  
AMT. USED TO BE STATED  
(NOTE: PREHEATING @ 130°F)  
(174-146°F boiling pt)  
(100°C < 222°C)

4. OIL VAPORIZED FROM SOLDER-OIL MIXTURE TO BE QUANTIFIED (TYPE OIL)  
(TIN & LEAD NOT VOLATILIZED)  
(NOTE: PASSES THROUGH A 3-STAGE metal throw-away med. filter to capture oil from closed-top vapor)

5. DEGREASER USES TMS-FREON (DUPONT) TRICHLORO-TRIFLUOROETHANE  
These VOC emission rates exempt from non-attainment total VOC emission rate determination as per 17-2.17(3)(a) 2.9.  
TO BE QUANTIFIED.

6. ROSIN used in on-line soldering & ISOPROPYL ALCOHOL TO BE QUANTIFIED.

NO ~~OTHER~~ POTENTIAL EMISSIONS FROM BACKEND OPERATIONS WERE APPROX

9/5/79 [vented VOC stamp?]

GENERAL

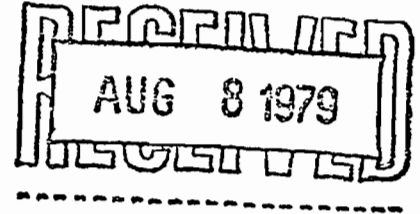
ALL WASTE SOLID, LIQUID TO BE QUANTIFIED

AND ADEQUATELY DESCRIBED, AND METHOD OF

HANDLING (RECYCLING, SOLD AS SCRAP, FOR DISPOSAL) ETC...  
BY WHOM & ULTIMATE DISPOSAL TO BE SPECIFIED



August 8, 1979



Mr. Dave Maltby, Regional Planner  
 Treasure Coast Regional Planning Council  
 50 Kindred Street  
 P.O. Box 2395  
 Stuart, Florida 33494

Dear Dave:

Attached is a location map and a preliminary conceptual site plan for Motorola's proposed manufacturing facility in Boynton Beach. Although the final plan has not yet been determined, it will be similar to this one in terms of total size and scope.

The property contains 90 acres, and is located in the southwest corner of the intersection of Congress Avenue and 22 Avenue. The site plan will show two separate facilities, each containing approximately 500,000 square feet. Motorola's current plans include only the development of the northernmost facility, and the second campus may never come into being. However, the site plans will include both facilities, in order to provide guarantees of approval for the second plant, should Motorola decide to build it at a later date.

The development of each facility will involve three phases, as follows:

<u>Phase</u>	<u>Start of Construction</u>	<u>Sq. Ft.</u>	<u>1st Shift Employees</u>	<u>Parking Spaces</u>
I	1980	240,000	1300	1000
II	1983-1988	140,000	750	550
III	1986-1991	125,000	675	500
Sub-Total North Facility		505,000	2725	2050
IV	1989-1994	240,000	1300	1000
V	1992-1997	140,000	750	550
VI	1995-2000	125,000	675	500
Sub-Total South Facility		505,000	2725	2050
TOTAL		1,010,000	5450	4100

The site plan will involve a land use breakdown approximately as follows:

<u>Use</u>	<u>Acres</u>	<u>% of Total</u>
Building	23.2	25.8%
Parking/Accessways	32.9	36.5%
Open Space	33.9	37.7%
Total	90.0	100.0%

Mr. Dave Maltby  
Treasure Coast Regional Planning Council

August 8, 1979  
Page - 2 -

The facility will be a light assembly plant for paging radio systems and/or Handie-Talkie radio systems, and will include the full range of engineering, administration and support services associated with these products. There will be no chemical manufacturing. Water and sewer facilities will be provided by the City of Boynton Beach.

If you need any additional information prior to our preapplication conference on August 13, please let me know.

Sincerely,



Mary Lou Lackey  
Manager  
Facility Planning

attachment:

33463

33462

33435

33437

33436

100-1-1	100-1-2	100-1-3	100-1-4	100-1-5	100-1-6	100-1-7	100-1-8	100-1-9	100-1-10	100-1-11	100-1-12	100-1-13	100-1-14	100-1-15	100-1-16	100-1-17	100-1-18	100-1-19	100-1-20	100-1-21	100-1-22	100-1-23	100-1-24	100-1-25	100-1-26	100-1-27	100-1-28	100-1-29	100-1-30	100-1-31	100-1-32	100-1-33	100-1-34	100-1-35	100-1-36	100-1-37	100-1-38	100-1-39	100-1-40	100-1-41	100-1-42	100-1-43	100-1-44	100-1-45	100-1-46	100-1-47	100-1-48	100-1-49	100-1-50	100-1-51	100-1-52	100-1-53	100-1-54	100-1-55	100-1-56	100-1-57	100-1-58	100-1-59	100-1-60	100-1-61	100-1-62	100-1-63	100-1-64	100-1-65	100-1-66	100-1-67	100-1-68	100-1-69	100-1-70	100-1-71	100-1-72	100-1-73	100-1-74	100-1-75	100-1-76	100-1-77	100-1-78	100-1-79	100-1-80	100-1-81	100-1-82	100-1-83	100-1-84	100-1-85	100-1-86	100-1-87	100-1-88	100-1-89	100-1-90	100-1-91	100-1-92	100-1-93	100-1-94	100-1-95	100-1-96	100-1-97	100-1-98	100-1-99	100-1-100
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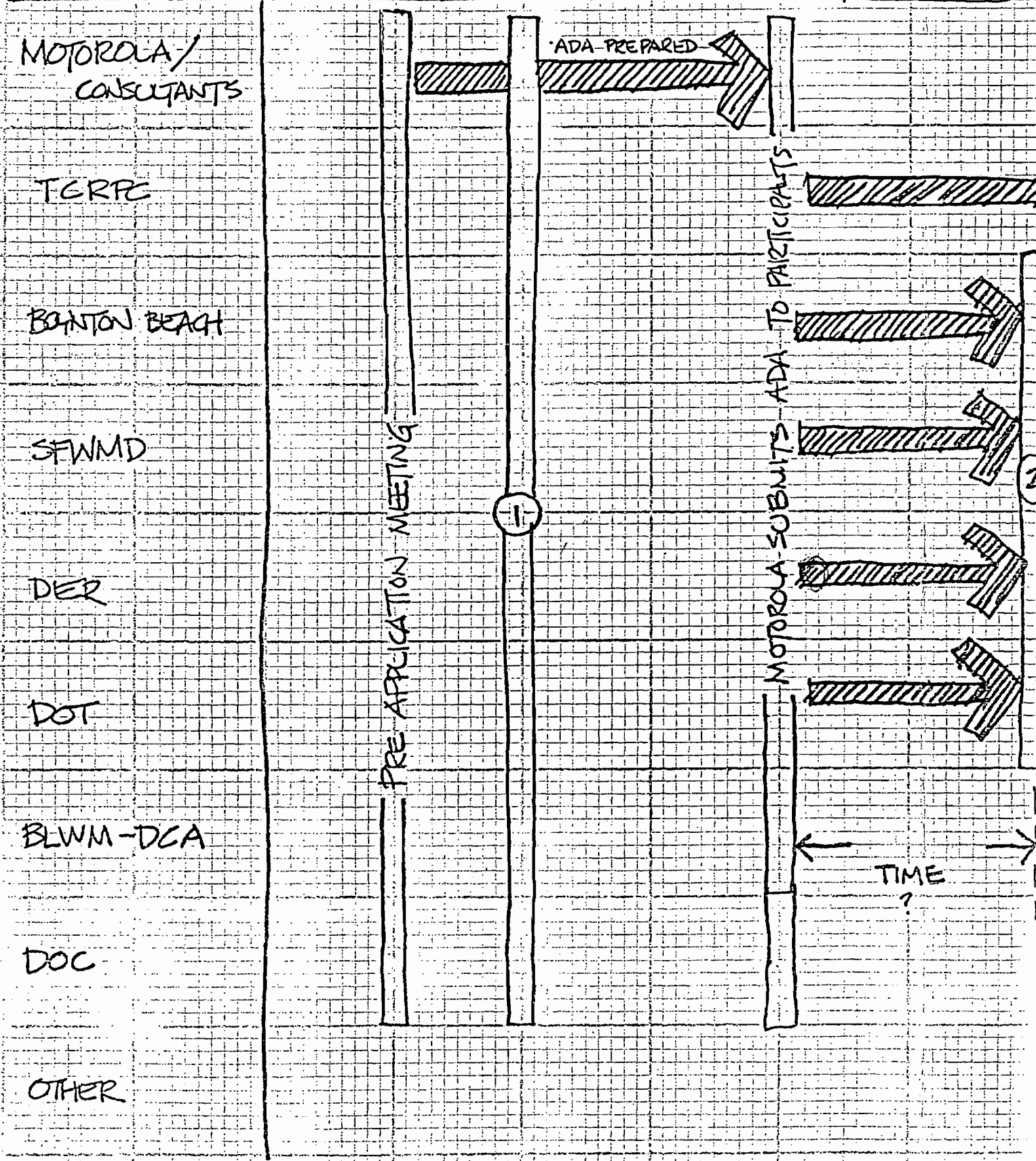


1965 1488

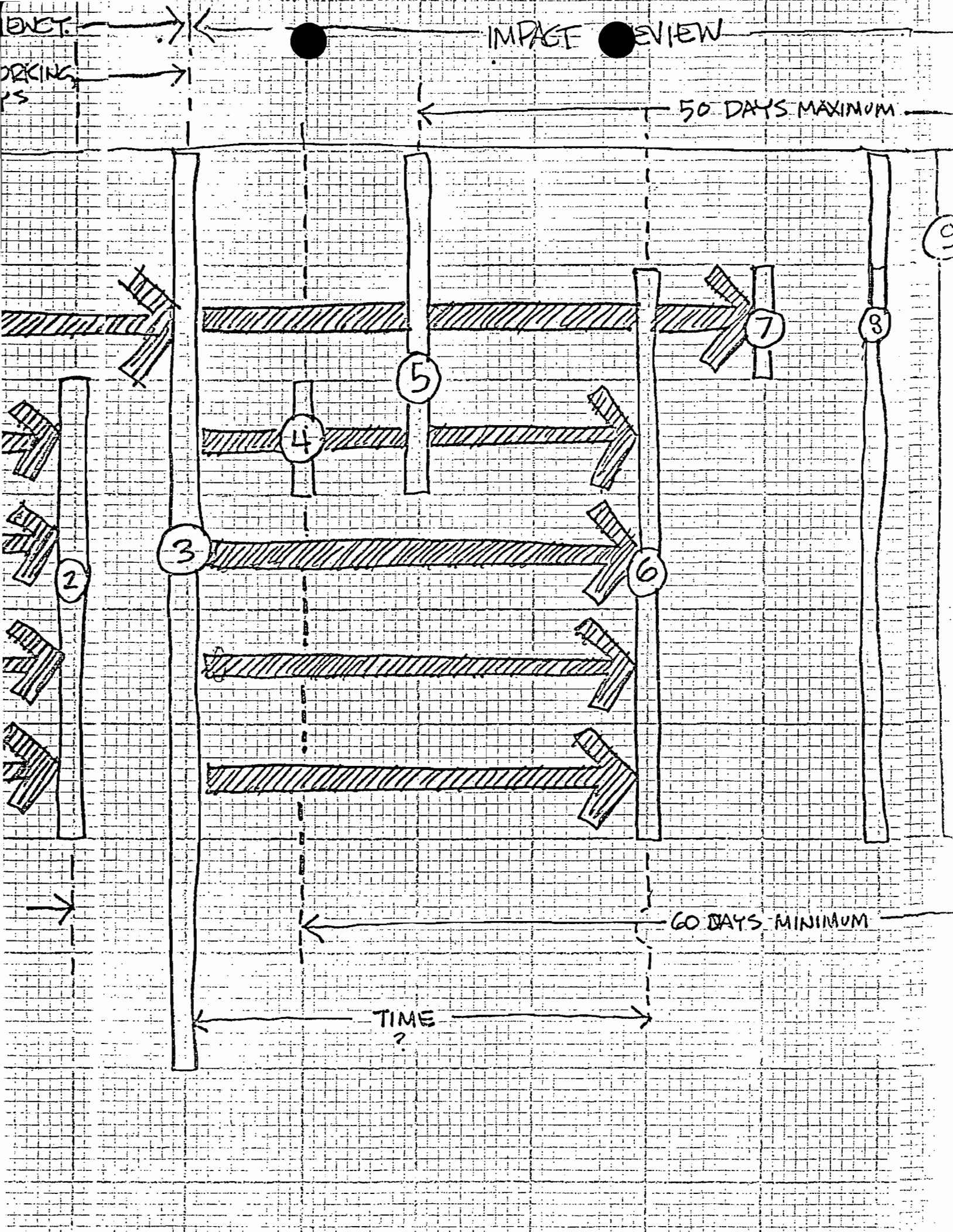


## NOTES TO THE MOTOROLA TIME CHART

1. a) TCRPC will formalize the conclusions of the Preapplication Meeting by letter.  
b) All agencies provide Motorola with materials relevant to the project area, i.e., reports, data, permit applications, rules, etc.
2. Agencies respond to TCRPC as to the sufficiency of the information provided in the ADA.
3. TCRPC notifies Boynton Beach, Motorola, and participating agencies of the sufficiency or lack thereof. Remaining activities assume the application is sufficient. TCRPC and participating agencies begin review.
4. Boynton Beach sets a public hearing date at least 60 days in advance. The date must be set at a scheduled meeting of the Boynton Beach City Council.
5. Boynton Beach notifies TCRPC and Motorola that the hearing date is set. This notification begins the 50-day DRI review period.
6. All participating agencies provide their reports on the ADA.
7. TCRPC staff completes their impact assessment with DRAFT recommendations.
8. Negotiating session where problems identified in the impact assessment report are discussed and, hopefully, mutually acceptable resolutions are found.
9. TCRPC meeting. Motorola will start the DRI review with a presentation of the project. Staff will follow with the impact assessment report. Other agencies may make a presentation, as appropriate. Motorola will conclude with a rebuttal to the assessment report, if appropriate.
10. The impact assessment report and final recommendations of the TCRPC are forwarded to Boynton Beach.
11. Boynton Beach holds public hearing.
12. Boynton Beach prepares Development Order.
13. Motorola, TCRPC, and BLWM have 45 days to appeal the Development Order.





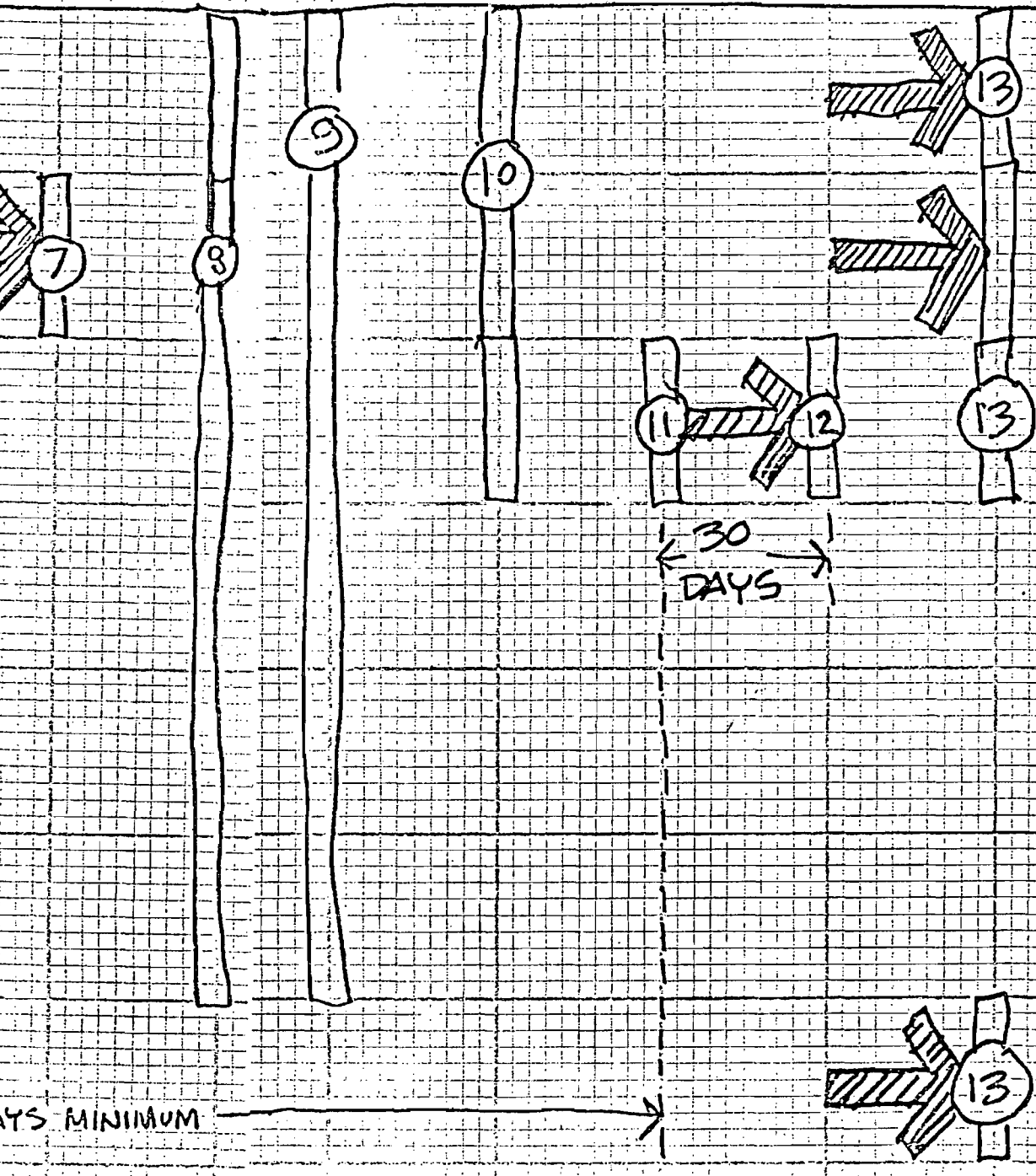


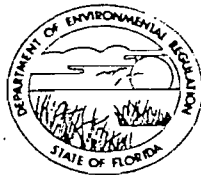


PUBLIC HEARING  
DEVELOPMENT  
ORDER

45  
DAYS

DAYS MAXIMUM





AC-50-28265  
(33526/FA)

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution [] New<sup>1</sup> [] Existing<sup>1</sup>

APPLICATION TYPE: [] Construction [] Operation [] Modification

COMPANY NAME: Motorola, Inc. COUNTY: Palm Beach

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Conveyorized Wave Solder and Degreasing System 1

SOURCE LOCATION: Street N.W. 22nd Ave. & Congress Ave. City Boynton Beach, Florida

UTM: East 17 589.200 North 2936.800

Latitude 80 ° 5 ' 0 "N Longitude 26 ° 32 ' 30 "W

APPLICANT NAME AND TITLE: John B. Gesbocker, Heery & Heery Architects & Engineers, Inc.

APPLICANT ADDRESS: 880 W. Peachtree Street, N.W., Atlanta, Georgia 30309

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Motorola, Inc.

I certify that the statements made in this application for a Construction Permit permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: [Signature]  
John B. Gesbocker  
Name and Title (Please Type)

Date: 2-18-80 Telephone No. 1/404/881-9880

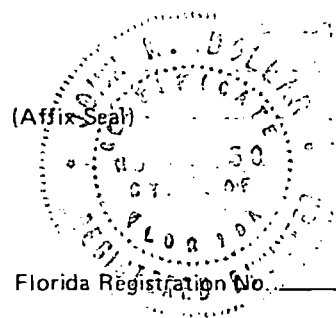
B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been ~~designed~~/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed: [Signature]  
John R. Dollar, P.E.  
Name (Please Type)

Environmental Analysis & Design, Inc.  
Company Name (Please Type)  
4720 N. Orange Blossom Trail-Orlando, FL 32804  
Mailing Address (Please Type)

Date: 2-14-80 Telephone No. 1/305/295-4131



Florida Registration No. #23458

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

A light industrial facility designed for manufacturing two-way hand-held radios. This facility will be in full compliance with FDER 17-2.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction June 1980 Completion of Construction September 1981

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

N/A

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AC 50-25762 Issued 1/14/80

Expires 12/31/81

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code?  Yes  No

F. Normal equipment operating time: hrs/day 8.5 ; days/wk 5 ; wks/yr 48 ; if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_

G. If this is a new source or major modification, answer the following questions. (Yes or No)

- |   |            |
|---|------------|
| 1. Is this source in a non-attainment area for a particular pollutant?  | <u>Yes</u> |
| a. If yes, has "offset" been applied?   | <u>No</u>  |
| b. If yes, has "Lowest Achievable Emission Rate" been applied?  | <u>No</u>  |
| c. If yes, list non-attainment pollutants.<br><u>Photochemical Oxidants</u>   |            |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.  | <u>No</u>  |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. | <u>No</u>  |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?  | <u>No</u>  |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?                                       | <u>No</u>  |

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Kester Solder Flux #1547	VOC		1.06	A

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): 1.06

2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted:**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Hydrocarbon	1.06	1.08	N/A		1.06	1.08	B

**D. Control Devices: (See Section V, Item 4)**

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. — 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_  
 Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_  
 Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal  
 Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average \_\_\_\_\_ Maximum \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 24 ft Stack Diameter: 0.5 ft  
 Gas Flow Rate: 600 ACFM Gas Exit Temperature: Ambient °F  
 Water Vapor Content: N/A % Velocity: 50.96 FPS

SECTION IV: INCINERATOR INFORMATION

N/A

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_  
 Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_  
 Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_  
 Manufacturer \_\_\_\_\_  
 Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.): \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, etc.).
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3, and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?  
 Yes  No

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)  Yes  No

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

- |                           |                      |
|---------------------------|----------------------|
| 1. Control Device/System: | 4. Capital Costs:    |
| 2. Operating Principles:  | 6. Operating Costs:  |
| 3. Efficiency:*           | 8. Maintenance Cost: |
| 5. Useful Life:           |                      |
| 7. Energy:                |                      |
| 9. Emissions:             |                      |

Contaminant	Rate or Concentration

\*Explain method of determining D 3 above.

10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power — KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.



- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space and operate within proposed levels:

4.

- a. Control Device
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant	Rate or Concentration
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

(8) Process Rate\*:

10. Reason for selection and description of systems:

[This section contains a large area of faint, illegible text and horizontal lines, likely representing a table or form for describing systems.]

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

**SECTION VII – PREVENTION OF SIGNIFICANT DETERIORATION**

**A. Company Monitored Data**

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub>• \_\_\_\_\_ Wind spd/dir

Period of monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

**2. Instrumentation, Field and Laboratory**

a) Was instrumentation EPA referenced or its equivalent? \_\_\_\_\_ Yes \_\_\_\_\_ No

b) Was instrumentation calibrated in accordance with Department procedures? \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Unknown

**B. Meteorological Data Used for Air Quality Modeling**

1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 month day year month day year

2. Surface data obtained from (location) \_\_\_\_\_

3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_

4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

**C. Computer Models Used**

1. \_\_\_\_\_ Modified? If yes, attach description.

2. \_\_\_\_\_ Modified? If yes, attach description.

3. \_\_\_\_\_ Modified? If yes, attach description.

4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

**D. Applicants Maximum Allowable Emission Data**

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sub>2</sub>	_____ grams/sec

**E. Emission Data Used in Modeling**

Attach list of emission sources. Emission data required is source name, description on point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

**F. Attach all other information supportive to the PSD review.**

\*Specify bubbler (B) or continuous (C).

**G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.**

**H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.**

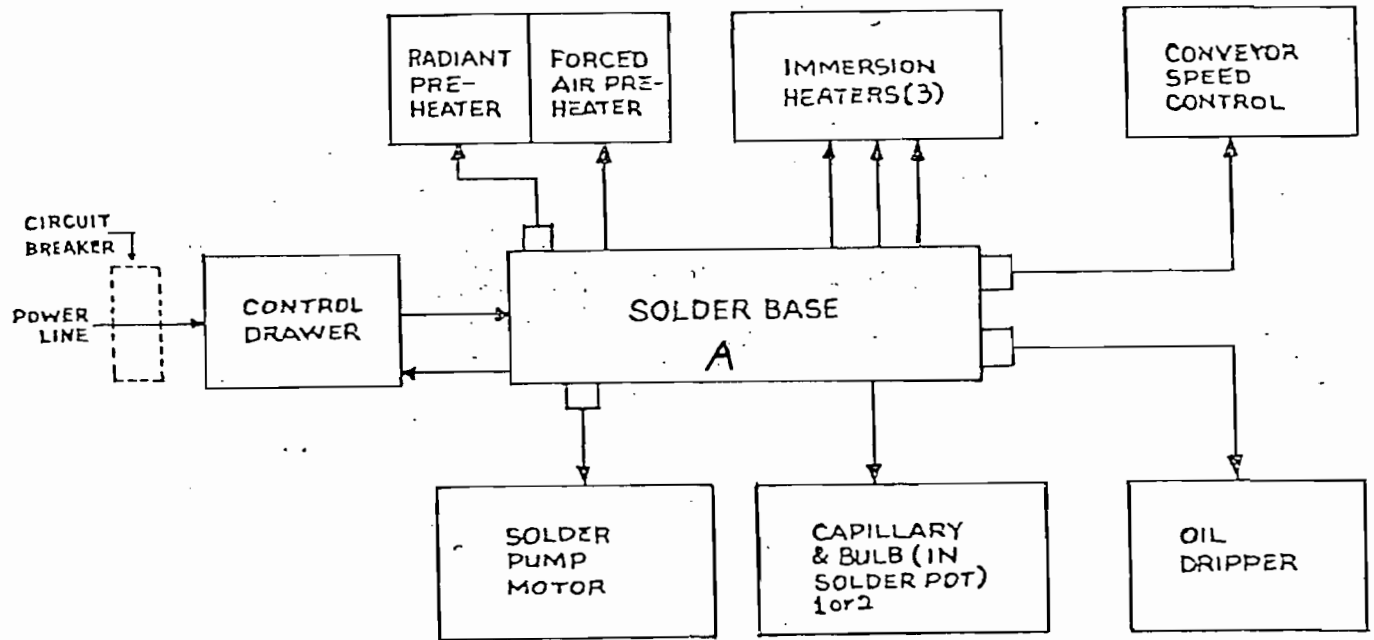
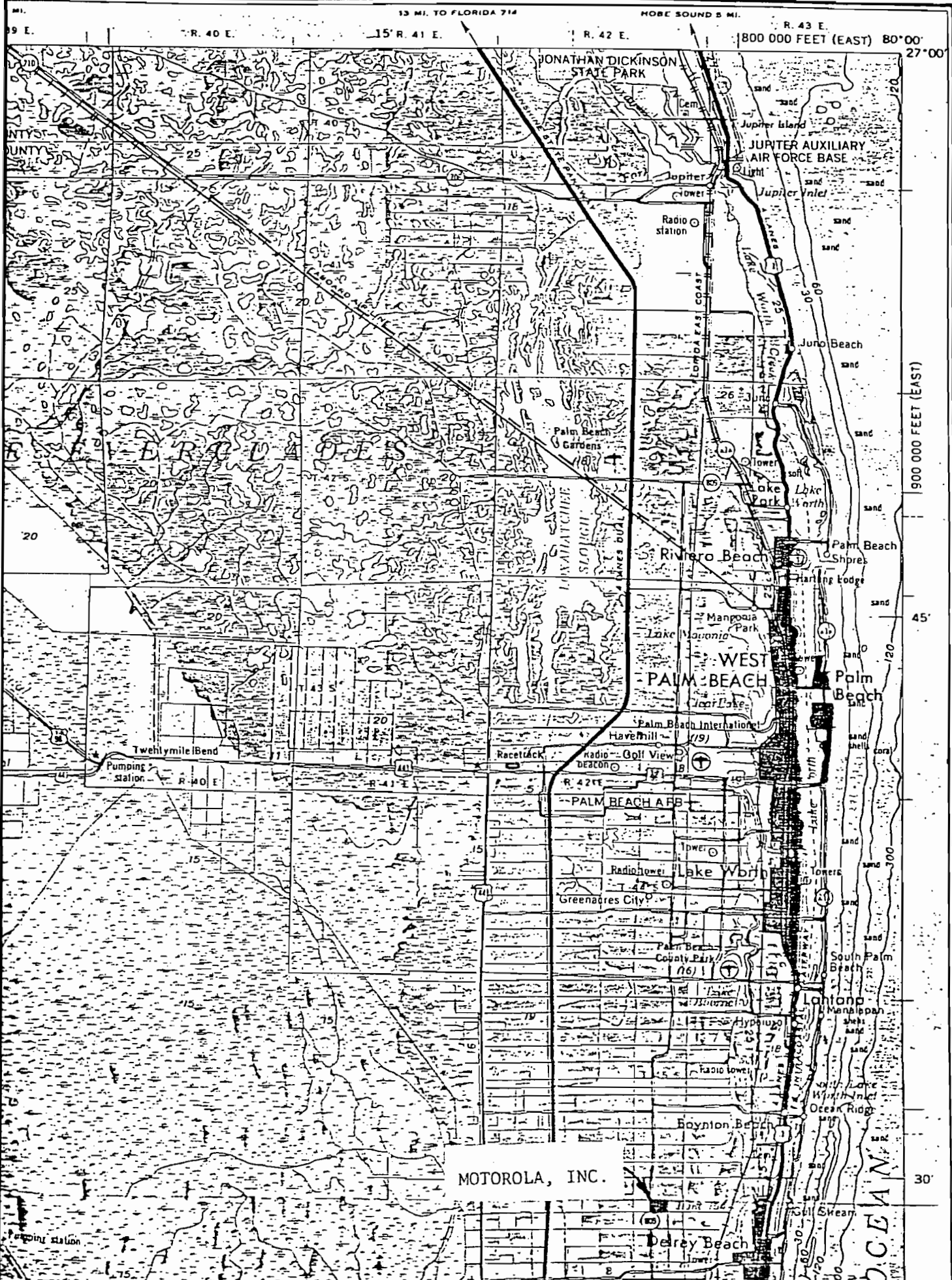


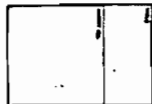
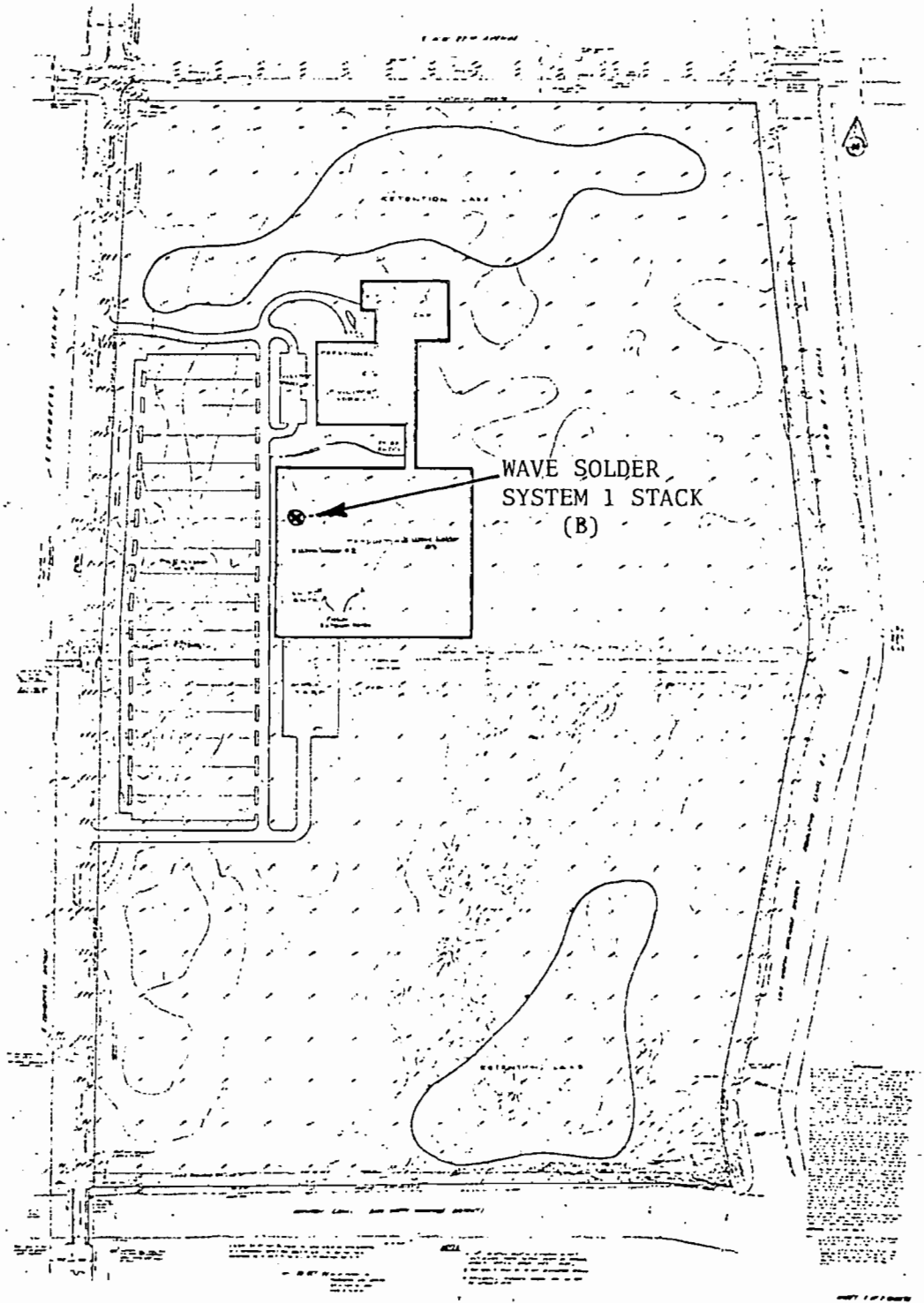
Fig. 1-13 Functional Block Diagram



MOTOROLA, INC.

OCEAN

BEST AVAILABLE COPY



**HOEBRY**


**PHASE I  
SITE PLAN**



**MOTOROLA**

BOYNTON BEACH, PALM BEACH COUNTY, FLORIDA

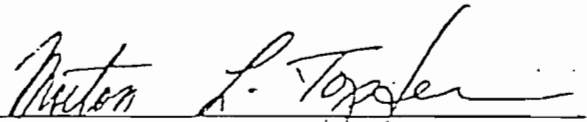
POWER OF ATTORNEY

Know All Men by These Presents, that Motorola, Inc., a corporation duly organized under the laws of the State of Delaware, authorized and doing business in Florida, and having its principle place of business at Schaumburg, Illinois, does hereby make, constitute and appoint Heery & Heery, Inc., 800 West Peachtree Street, N.W., Atlanta, Georgia, its authorized agent, for it, and in its name, place and stead to compile, prepare, obtain, and deliver any and all submittals, permits, applications and studies in connection with Motorola, Inc.'s Application for Development Approval in connection with that certain real estate described as follows:

A Tract of land described as portions of the southwest one fourth of Section 17, and the northwest one fourth of Section 20, Township 45 South, Range 43 east, Palm Beach County, Florida, lying south of the southerly right-of-way line of Northwest 22 Avenue as described in official records book 1738 at page 1686 of the public records of Palm Beach County, Florida, and east of easterly right-of-way line of Congress Avenue, west of the westerly right-of-way line of the Lake Worth Drainage District equalizing canal E-4 and north of the north right-of-way line of the Lake Worth Drainage District Boynton canal. Said tract of land contains approximately 90 acres more or less.

And to do and perform all and every act and thing whatsoever, requisite, necessary and proper to be done in the premises, as fully, to all intents and purposes, as it might or could do, with full power of substitution and revocation, hereby ratifying and confirming all that its authorized agent, or its substitute, shall lawfully do, or cause to be done, by virtue hereof.

In witness whereof, Motorola, Inc. has caused its corporate name to be subscribed hereto by its vice president.

  
Morton L. Topfer, Vice President

MOTOROLA INC.



Communications Products Division

January 24, 1980

Mr. Jim Show  
Environmental Analysis and Design, Inc.  
4720 North Orange Blossom Trail  
Orlando, Florida 32804

Dear Jim:

Current usage of volatile organic compounds (V.O.C.) at the existing Plantation facility has been more carefully analyzed. Chemical usage associated with the products which will be moved to Boynton Beach (exclusive of the chemicals used in conjunction with the wave solder systems) is as follows:

<u>Chemical</u>	<u>V.O.C. lb./Week</u>
Plio-Bond Adhesive	0.4 oz.
Bond-Solv Solvent	1.06 lb.
Isopropyl Alcohol	100 lb.
Acetone	63 lb.
Red Lacquer	*
Green Lacquer	*
Eastman 910 Fast Set	.5 lb.
Plio-Bond	.1 lb.
Chloroethane NU (1,1,1, Trichloroethane)	<u>Exempt 12/6/79</u>
TOTAL:	165 V.O.C. lb./Week

\* Used in insignificant quantities

The plant operates the equivalent of forty-eight weeks each year. There are ten holidays, and production is shutdown for an additional two weeks each summer. (During that time, administrative offices and certain mechanized test operations are open, however, the operations utilizing the above V.O.C.'s are completely shut down.) Therefore, the above usage corresponds to 7,920 V.O.C. lb./year.



Some radio units contain more than one assembled board, and some of the boards are assembled offshore. It is estimated that the existing volume is 60,000 boards/year. This allows us to derive a factor of 0.132 V.O.C. lb./year/board which can be used to project future volumes. At the end of the first year of operation in Boynton Beach (1981), the volume is expected to be approximately 60,000 boards/year. Volume is expected to increase as shown below. The factor for V.O.C. lb./year/board will be held constant. This yields the following:

<u>Year</u>	<u>Boards/Year</u>	<u>V.O.C. lb./Year</u>
1: 1981	60,000	7,920
2: 1982	105,000	13,860
3: 1983	122,000	16,104
4: 1984	158,000	20,856
5: 1985	190,000	25,080

The conveyORIZED wave solder and degreasing systems use two V.O.C.'s; Freon TMS, which DER has exempted, and Kester Solder Flux #1547. The amount of solder flux used in a system depends upon the degree to which it is utilized, however it averages approximately 45 V.O.C. pounds per system per week. These systems are utilized forty-eight weeks per year, corresponding to a total of 2160 V.O.C. lb./year for each system. At the present time, we anticipate installing three such systems on the following time schedule. For the application, an additional six months should be added to each of these dates to allow us some cushion.

System 1	March 1981
System 2	December 1983
System 3	December 1985

These systems will be vented. Their approximate locations are shown on the attached print. Data on the equipment included in these systems is also attached.

Also shown on the attached print are the estimated locations of other vents. These vents are in areas where there is a somewhat more intensive use of V.O.C. chemicals. However, since there will be no air conditioning exhaust vents, these can be utilized as the outflow points for the general chemical usage addressed on the first page of this letter.

Mr. Jim Show  
Environmental Analysis and Design, Inc.

January 24, 1980  
Page - 3 -

The basic hours of operation for all of these V.O.C.'s is 7:00 AM to 3:30 PM, Monday through Friday.

Please let us know as quickly as possible what additional information or documents you will need to prepare these applications.

Sincerely,



Mary Lou Lackey  
Manager  
Facility Planning

attachments:

cc: Dennis Adams  
Phil Burroughs  
Jack Gesbocker  
Fred Hilton  
Garth Horne  
Jim Hunt  
Ray Ochocki  
Ralph Parilla



AC 50-28264

(33525/FA)

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: Motorola, Inc. COUNTY: Palm Beach

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Circuit Board Assembly 60,000 Boards/Year

SOURCE LOCATION: Street N.W. 22nd Ave. & Congress Ave. City Boynton Beach, Florida

UTM: East 17 589.200 North 2936.800

Latitude 80 0 5 0 "N Longitude 26 0 32 30 "W

APPLICANT NAME AND TITLE: John B. Gesbocker, Heery & Heery Architects & Engineers, Inc.

APPLICANT ADDRESS: 880 W. Peachtree Street, N.W., Atlanta, Georgia 30309

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Motorola Inc.  
Construction Permit

I certify that the statements made in this application for a Construction Permit permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: [Signature]  
John B. Gesbocker  
Name and Title (Please Type)

Date: 2-18-80 Telephone No. 1/404/881-9880

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been ~~designed~~/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, applicable, pollution sources.

Signed: [Signature]  
John R. Dollar, P.E.  
Name (Please Type)

Environmental Analysis & Design, Inc.  
Company Name (Please Type)

4720 N. Orange Blossom Trail-Orlando, FL 32804  
Mailing Address (Please Type)

Date: 2-14-80 Telephone No. 1/305/295-4131



Florida Registration No. #23458

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Light industrial facility designed for manufacturing two-way hand-held  
radios. This facility will be in full compliance with FDER 17-2.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction June 1980 Completion of Construction September 1981

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

N/A

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AC 50-25762 Issued 1/14/80

Expires 12/31/81

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code?  Yes  No

F. Normal equipment operating time: hrs/day 8.5; days/wk 5; wks/yr 48; if power plant, hrs/yr \_\_\_\_\_; if seasonal, describe: \_\_\_\_\_

G. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant?

Yes

a. If yes, has "offset" been applied?

No

b. If yes, has "Lowest Achievable Emission Rate" been applied?

No

c. If yes, list non-attainment pollutants.

Photochemical Oxidants

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.

No

3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII.

No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?

No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?

No

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - <del>lbs/hr</del> lb/wk	Relate to Flow Diagram
	Type	% Wt		
Plio-Bond Adhesive	VOC		0.025	
Bond-Soly Solvent	VOC		1.06	
Isopropyl Alcohol	VOC		100	
Acetone	VOC		63	
Eastman 910 Fast Set	VOC		0.5	
Plio-Bond	VOC		0.1	

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 60,000 Boards/Year (3.87 lbs/hour of chemicals)

2. Product Weight (lbs/hr): N/A

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Hydrocarbon	3.87	3.95	N/A		3.87	3.95	B

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_  
 Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_  
 Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal  
 Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average \_\_\_\_\_ Maximum \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack): Two Vent Stacks

Stack Height: 24 ft. Stack Diameter: .5 ft.  
 Gas Flow Rate: 600 ACFM Gas Exit Temperature: Ambient °F.  
 Water Vapor Content: N/A % Velocity: 50.96 FPS

SECTION IV: INCINERATOR INFORMATION

N/A

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste: \_\_\_\_\_  
 Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_  
 Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_  
 Manufacturer \_\_\_\_\_  
 Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION V: SUPPLEMENTAL REQUIREMENTS**

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, etc.).
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3, and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

N/A

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?  
 Yes  No

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)  Yes  No

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

- 1. Control Device/System:
- 2. Operating Principles:
- 3. Efficiency:
- 4. Capital Costs:
- 5. Useful Life:
- 6. Operating Costs:
- 7. Energy:
- 8. Maintenance Cost:
- 9. Emissions:

Contaminant	Rate or Concentration

\*Explain method of determining D 3 above.



• 10. Stack Parameters

- a. Height: \_\_\_\_\_ ft.
- b. Diameter: \_\_\_\_\_ ft.
- c. Flow Rate: \_\_\_\_\_ ACFM
- d. Temperature: \_\_\_\_\_ °F
- e. Velocity: \_\_\_\_\_ FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power — KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- i. Availability of construction materials and process chemicals:
  - j. Applicability to manufacturing processes:
  - k. Ability to construct with control device, install in available space and operate within proposed levels:
- 4.
- a. Control Device
  - b. Operating Principles:
  - c. Efficiency\*:
  - d. Capital Cost:
  - e. Life:
  - f. Operating Cost:
  - g. Energy:
  - h. Maintenance Cost:
  - i. Availability of construction materials and process chemicals:
  - j. Applicability to manufacturing processes:
  - k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

- a.
  - (1) Company:
  - (2) Mailing Address:
  - (3) City:
  - (4) State:
  - (5) Environmental Manager:
  - (6) Telephone No.:

\*Explain method of determining efficiency above.

- (7) Emissions\*:

Contaminant	Rate or Concentration

- (8) Process Rate\*:

- b.
  - (1) Company:
  - (2) Mailing Address:
  - (3) City:
  - (4) State:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

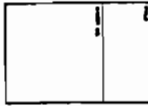
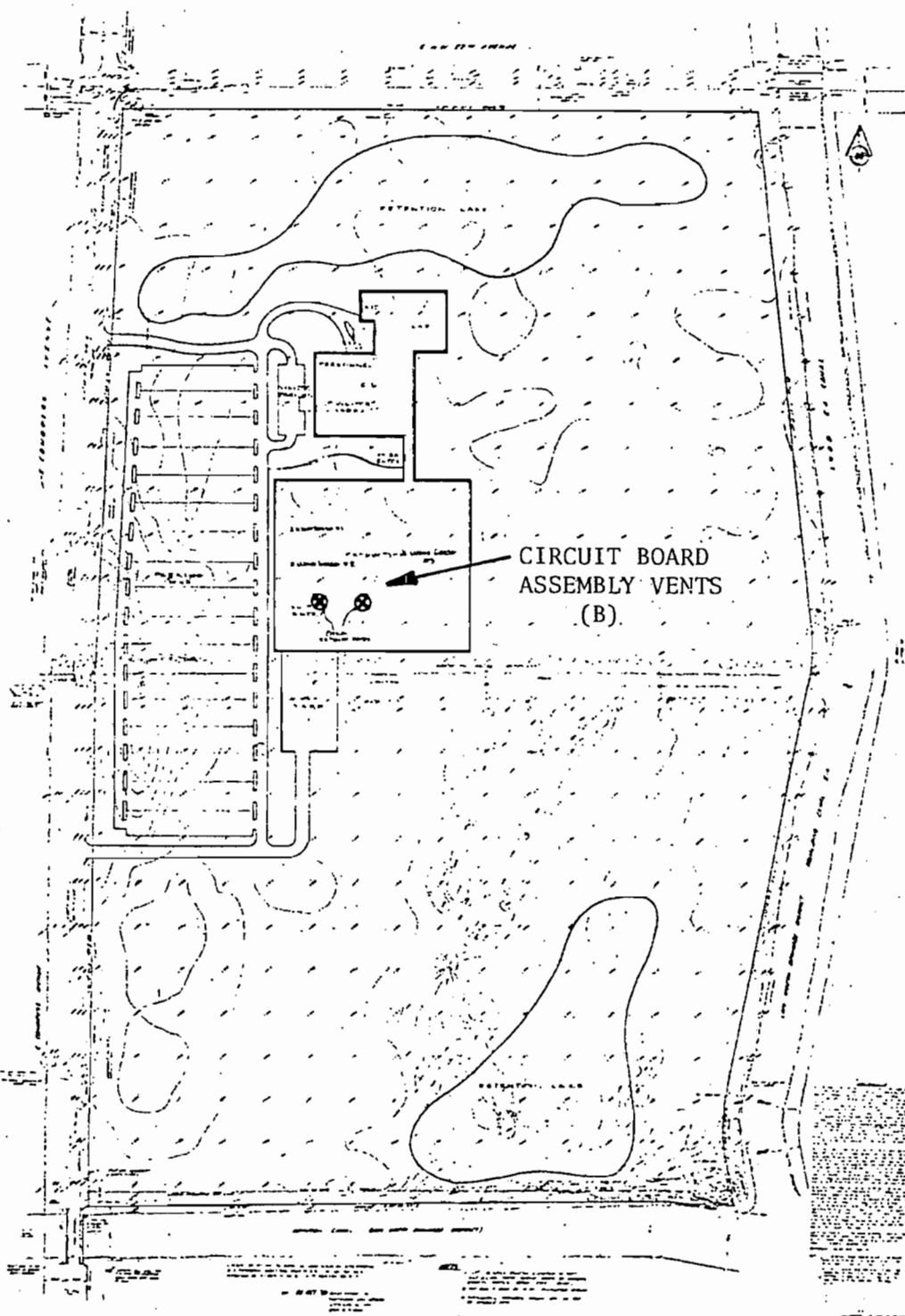
(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.







**HEERY**


**PHASE I  
SITE PLAN**



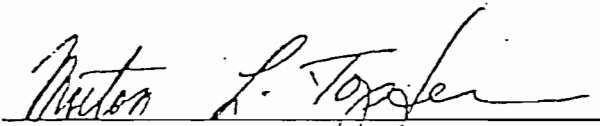
POWER OF ATTORNEY

Know All Men by These Presents, that Motorola, Inc., a corporation duly organized under the laws of the State of Delaware, authorized and doing business in Florida, and having its principle place of business at Schaumburg, Illinois, does hereby make, constitute and appoint Heery & Heery, Inc., 800 West Peachtree Street, N.W., Atlanta, Georgia, its authorized agent, for it, and in its name, place and stead to compile, prepare, obtain, and deliver any and all submittals, permits, applications and studies in connection with Motorola, Inc.'s Application for Development Approval in connection with that certain real estate described as follows:

A Tract of land described as portions of the southwest one fourth of Section 17, and the northwest one fourth of Section 20, Township 45 South, Range 43 east, Palm Beach County, Florida, lying south of the southerly right-of-way line of Northwest 22 Avenue as described in official records book 1738 at page 1686 of the public records of Palm Beach County, Florida, and east of easterly right-of-way line of Congress Avenue, west of the westerly right-of-way line of the Lake Worth Drainage District equalizing canal E-4 and north of the north right-of-way line of the Lake Worth Drainage District Boynton canal. Said tract of land contains approximately 90 acres more or less.

And to do and perform all and every act and thing whatsoever, requisite, necessary and proper to be done in the premises, as fully, to all intents and purposes, as it might or could do, with full power of substitution and revocation, hereby ratifying and confirming all that its authorized agent, or its substitute, shall lawfully do, or cause to be done, by virtue hereof.

In witness whereof, Motorola, Inc. has caused its corporate name to be subscribed hereto by its vice president.

  
Morton L. Topfer, Vice President

MOTOROLA INC.



Communications Products Division

January 24, 1980

Mr. Jim Show  
Environmental Analysis and Design, Inc.  
4720 North Orange Blossom Trail  
Orlando, Florida 32804

Dear Jim:

Current usage of volatile organic compounds (V.O.C.) at the existing Plantation facility has been more carefully analyzed. Chemical usage associated with the products which will be moved to Boynton Beach (exclusive of the chemicals used in conjunction with the wave solder systems) is as follows:

<u>Chemical</u>	<u>V.O.C. lb./Week</u>
Plio-Bond Adhesive	0.4 oz.
Bond-Solv Solvent	1.06 lb.
Isopropyl Alcohol	100 lb.
Acetone	63 lb.
Red Lacquer	*
Green Lacquer	*
Eastman 910 Fast Set	.5 lb.
Plio-Bond	.1 lb.
Chlorothane NU (1,1,1, Trichloroethane)	Exempt 12/6/79
TOTAL:	165 V.O.C. lb./Week

\* Used in insignificant quantities

The plant operates the equivalent of forty-eight weeks each year. There are ten holidays, and production is shutdown for an additional two weeks each summer. (During that time, administrative offices and certain mechanized test operations are open, however, the operations utilizing the above V.O.C.'s are completely shut down.) Therefore, the above usage corresponds to 7,920 V.O.C. lb./year.



Some radio units contain more than one assembled board, and some of the boards are assembled offshore. It is estimated that the existing volume is 60,000 boards/year. This allows us to derive a factor of 0.132 V.O.C. lb./year/board which can be used to project future volumes. At the end of the first year of operation in Boynton Beach (1981), the volume is expected to be approximately 60,000 boards/year. Volume is expected to increase as shown below. The factor for V.O.C. lb./year/board will be held constant. This yields the following:

<u>Year</u>	<u>Boards/Year</u>	<u>V.O.C. lb./Year</u>
1: 1981	60,000	7,920
2: 1982	105,000	13,860
3: 1983	122,000	16,104
4: 1984	158,000	20,856
5: 1985	190,000	25,080

The conveyORIZED wave solder and degreasing systems use two V.O.C.'s; Freon TMS, which DER has exempted, and Kester Solder Flux #1547. The amount of solder flux used in a system depends upon the degree to which it is utilized, however it averages approximately 45 V.O.C. pounds per system per week. These systems are utilized forty-eight weeks per year, corresponding to a total of 2160 V.O.C. lb./year for each system. At the present time, we anticipate installing three such systems on the following time schedule. For the application, an additional six months should be added to each of these dates to allow us some cushion.

System 1	March 1981
System 2	December 1983
System 3	December 1985

These systems will be vented. Their approximate locations are shown on the attached print. Data on the equipment included in these systems is also attached.

Also shown on the attached print are the estimated locations of other vents. These vents are in areas where there is a somewhat more intensive use of V.O.C. chemicals. However, since there will be no air conditioning exhaust vents, these can be utilized as the outflow points for the general chemical usage addressed on the first page of this letter.

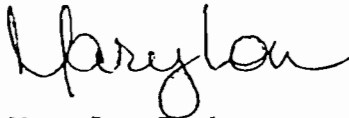
Mr. Jim Show  
Environmental Analysis and Design, Inc.

January 24, 1980  
Page - 3 -

The basic hours of operation for all of these V.O.C.'s is 7:00 AM to 3:30 PM,  
Monday through Friday.

Please let us know as quickly as possible what additional information or  
documents you will need to prepare these applications.

Sincerely,



Mary Lou Lackey  
Manager  
Facility Planning

attachments:

cc: Dennis Adams  
Phil Burroughs  
Jack Gesbocker  
Fred Hilton  
Garth Horne  
Jim Hunt  
Ray Ochocki  
Ralph Parilla

3301 GUN CLUB ROAD  
P.O. BOX 3858  
WEST PALM BEACH, FLORIDA 33402



BOB GRAHAM  
GOVERNOR

JACOB D. VARN  
SECRETARY

WARREN G. STRAHM  
SUBDISTRICT MANAGER

STATE OF FLORIDA

## DEPARTMENT OF ENVIRONMENTAL REGULATION

### SOUTH FLORIDA SUBDISTRICT

November 2, 1979

Palm Beach County  
Motorola, Inc.

Mr. Sam Shannon, Executive Director  
Treasure Coast Regional Planning Council  
Post Office Box 2395  
Stuart, Florida 33494

Dear Mr. Shannon:

Your letter of October 22, 1979 to Scott Benyon of this office requested that the Subdistrict provide you with information or comment on the proposed Motorola, Inc. project in Boynton Beach. Attached you will find copies of correspondence between this office and Motorola, Inc. on the subject project.

The following summarizes the correspondence:

1. Department permits for complex source emission, volatile organic compound (VOC) emission, dredge and fill construction and domestic wastewater collection system construction are required for the Motorola, Inc. project.
2. Department approval of Motorola, Inc.'s spill containment provisions is required.
3. If Motorola, Inc. complies with South Florida Water Management criteria outlined in Chapter 16K, Florida Administrative Code (F.A.C.), then pursuant to Section 17-4.248, F.A.C., Motorola, Inc. would not be subject to Department licensing of the proposed storm-water discharge(s).
4. Motorola, Inc.'s anticipated volume of potential VOC emissions exceeds the threshold established for the processing of corresponding air emission permit applications by DER District/Subdistrict offices. The VOC permit application processing for the Motorola, Inc. project will be by the Department's Bureau of Air Quality Management in Tallahassee.

original typed on 100% recycled paper

Page 2  
Mr. Sam Shannon  
November 2, 1979

Ms. Mary Lou Lackey, Facility Planning Manager for Motorola, Inc., has been informed of all of these requirements. To date the Subdistrict has received a dredge and fill permit application from Motorola, Inc. and Department processing of the application request has begun.

Your letter also expressed a desire that the Department provide representation at the December 7, 1979 Council meeting. A representative(s) of the Subdistrict will attend the meeting in question and will be available to respond to questions relative to the Subdistrict's needs and responsibility(s) in this matter. By copy of this letter I am also notifying the Department's Bureau of Air Quality Management of your desire so that representation, if possible, from the appropriate VOC permitting staff can be provided.

Sincerely,



Warren G. Strahm  
Subdistrict Manager

WGS:sbs

Enclosures

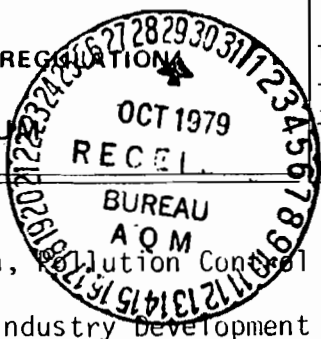
cc: → Steve Smallwood, Bureau of Air Quality Management, DER/Tallahassee  
Palm Beach County Health Department

*Scott Benyon*  
*NSA - PB Co*  
*1979-1907*  
*1980-5807*  
*Out side 12/3*

State of Florida

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM



For Routing To District Offices  
And/Or To Other Than The Addressee

To: *Steve Smallwood*

To: \_\_\_\_\_ Locn.: \_\_\_\_\_

To: \_\_\_\_\_ Locn.: \_\_\_\_\_

From: \_\_\_\_\_ Date: \_\_\_\_\_

TO: Mr. Scott Benyon, Pollution Control Consultant, S. Florida Subdistrict

FROM: Bruce Johnson, Industry Development Coordinator

DATE: October 26, 1979

SUBJECT: Motorola (Boynton Beach)

Several weeks ago, Jake Varn made a decision that on industrial development projects that Sonny Vergara and I have been involved with, we should get out of the picture once the project gets to the permitting application stage and let the Division of Permitting handle it from that point.

Therefore, in compliance with the above policy change, I am sending you this letter from Sam Shannon, Executive Director of the Treasure Coast Regional Planning Council, to handle. Many thanks for your past excellent cooperation on this project.

BJ/la  
Attachment

cc: Mr. Sam Shannon  
Mr. John Outland  
Mr. Steve Smallwood  
Mr. Sonny Vergara

st. lucie

count

regional  
planning  
council

October 22, 1979

Mr. Bruce Johnson  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32301

Dear Mr. Johnson *Bruce*

The Application for Development Approval (ADA) filed by Motorola for the proposed manufacturing, development and administrative facility in Boynton Beach has been reviewed and recently found sufficient for the Council to carry out the assigned responsibilities according to Section 380.06 F.S. It is anticipated that the required notice of public hearing will be received from the City of Boynton Beach in the very near future. Thus, the Council should be considering the ADA at its December 7 meeting.

In order to assure that the Council's report and recommendation be as complete and responsive to all potential issues as possible, it is requested that your agency provide us with any information or comments on the proposed development. This request is being made to provide an opportunity for any potentially affected agency or jurisdiction to raise concerns or issues and to increase the coordination of the review process. In order for the Council to have a reasonable period of time to adequately consider your input it is requested that your comments, if any, be received by November 13.

Finally, it is requested that your staff be available to answer questions and supply information or data that may be necessary for the Council to review the project and its potential impact. This request is made regardless of any specific effort your agency may wish to make in offering direct comment on the project.

I thank you for any assistance you are able to provide the Council in this matter.

Yours truly,

Sam Shannon  
Executive Director

SS:lb

St. Lucie County  
P.O. Box 2495  
Stuart, Florida 34994  
Phone: 385-286-3313

St. Lucie County  
Treasurer

St. Lucie County  
Auditor

St. Lucie County  
Commissioner

St. Lucie County  
Director