PERMITTEE:
Better Roads, Inc.
P.O. Box 9939
Naples, Florida 33941

NOTICE OF AIR CONSTRUCTION PERMIT

Enclosed is the Final Air Construction Permit No. 7775122-001-AC, for a diesel engine powered portable concrete and asphalt material crusher that will be allowed to be assembled at sites in those counties designated in the Appendix-PC to the permit. This permit is issued pursuant to Chapter 403, Florida Statutes.(F.S.)

Any party to this order (permit) has the right to seek judicial review of the permits pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

C.H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this AIR CONSTRUCTION PERMIT was sent by certified mail (*) and copies were mailed by U.S. Mail, or electronic mail (as noted) before the close of business on 11/29/00 to the person(s) listed:

Joseph Boness, III (*), President; Better Roads, Inc.; P.O. Box 9979, Naples, Florida 33941
William D. Arlington, Arlington Environmental, Inc., P.O. Box 657, Okeechobee, Florida 34973
Stephanie Brooks, P.E., Brooks & Associates, 5068 NW 85th RD, Coral Springs, Florida 33067
Bill Thomas, DEP, Southwest District
Ron Blackburn, DEP, South District
Kent Kimes, Sarasota County Natural Resources Department

11/29/00 cc: Reading file

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara K. Friday 11/29/00
(Clerk) (Date)

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

PERMITTEE:
Better Roads, Inc.
P.O. Box 9939
Naples, Florida 33941

FID NO.: 7775122
Permit No.: 7775122-001-AC
SIC No.: 1795
Expiration Date: *November 21, 2005*
Project: Diesel engine powered relocatable concrete, asphalt, and rock crushing plant designated Hazmag Model KR131D2912

AUTHORIZED REPRESENTATIVE

Mr. Joseph B. Boness, III
Better Roads, Inc.
P.O. Box 9979
Naples, Florida 33941

PROJECT

This permit allows the permittee to construct/install a diesel engine powered relocatable concrete, asphalt, and rock crushing plant, designated as Hazmag Model KR131D2912 Crushing Plant, together with associated crusher feeder, classifier screens, conveyors, primary diesel engine and an auxiliary diesel electric generator.

STATEMENT OF BASIS

This air construction permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to construct/install the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

APPENDICES

The attached appendices are a part of this permit:

Appendix GC - General Permit Conditions
Appendix PC - Permitted Counties

Howard L. Rhodes, Director
Division of Air Resources
Management

FACILITY DESCRIPTION

This facility consists of a 400 tons per hour (TPH) Hazmag Model KR131D2912 impact crusher facility with associated crusher feeder, classifier screens and conveyors, all of which are mounted on a transportable chassis and powered by a 450 hp Caterpillar diesel engine mounted on the same transportable chassis. The crusher and auxiliary conveyors, screen shaker and water spray pumps, are electrically driven from the 205 KW Caterpillar diesel generator set. Process unconfined fugitive particulate matter emissions from the crushing operation, specifically the feeders, screen classifiers and conveyor transfer points, shall be controlled by a water-spray suppression system. Non-process unconfined fugitive particulate matter emissions from the roadways, stockpiles and work-yard, shall be controlled by watering and/or by application of some effective dust suppressant(s).

REGULATORY CLASSIFICATION

The facility is subject to the regulations of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants. The generator portion of the facility is regulated under Rule 62-210.300, F.A.C., Permits Required, since there are no unit specific regulatory requirements that apply.

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application received: July 17, 2000
- Intent to issue an air construction permit signed October 2, 2000
- Proof of publication Sarasota, Charlotte and DeSoto Counties received November 21, 2000.

PERMITTED COUNTIES

Please see Appendix PC, Permitted Counties, for a list of counties in which the facility will be able to operate once Public Notice has been published, the performance testing has been completed satisfactorily, and the air operation permit has been issued or amended after proper relocation notification. As proof of publication is received by the Department, the publication date shall be inserted into Appendix PC.

OPERATING LOCATION

The facility will be based near SR 31 on Babcock Ranch property 2.5 miles south of Tucker's Corner in Charlotte County, Florida. The UTM coordinates for that site are Zone 17; 410,23 km East; and, 2962.71 km North.

The following facility-wide conditions apply to all emissions units at this facility.

ADMINISTRATIVE

1. Regulating Agencies: All documents relating to the initial application for a permit to operate and all initial compliance tests shall be submitted to the Department's Bureau of Air Regulation in Tallahassee. Subsequent applications for permit renewals, reports, tests, minor modifications, and notifications shall be submitted to the district office or local program that has permitting/compliance jurisdiction over the current or proposed operating location.

2. General Conditions: In addition to the specific conditions of this permit, the owner and operator are subject to and shall operate under the General Permit Conditions G.1 through G.15, contained in the attached Appendix GC - General Permit Conditions of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403, F.S.
[Rule 62-4.160, F.A.C.]

3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C., and follow the application procedures in Chapter 62-4, F.A.C.
[Rule 62-210.900, F.A.C.]

5. Extension of Expiration Date: The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit.
[Rules 62-210.300(1), 62-4.070(4) and 62-4.210, F.A.C.]

6. Notification of Intent to Relocate: An air permit for a relocatable facility shall be amended upon each change of location of the facility. The owner or operator of the facility must submit a Notification of Intent to Relocate Air Pollutant Emitting Facility [DEP Form No. 62-210.900(6)] to the Department's District office and/or, if appropriate, the local program office, at least seven (7) days prior to the change, if the facility would be relocated to a county in which public notice of the proposed operation of the facility had been given within the previous five years pursuant to Rule 62-210.350(1), F.A.C., or otherwise thirty (30) days prior to the change. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated.

The notification shall be submitted to the Department's District office and any approved local program office using DEP Form No. 62-210.900(6), along with the appropriate processing fee, and a USGS topographic map showing all potential sites in such county.
[Rule 62-210.370(1), F.A.C.]

7. Operation Permit Required: This permit authorizes construction/installation of the facility and initial operation for testing purposes in order to determine compliance with the applicable rules and standards. An operation permit is required for continued commercial operation of the facility. The owner or operator shall apply for and receive an operation permit prior to expiration of this permit. To apply for an operation permit, the applicant shall submit the appropriate application fee and, in quadruplicate, the appropriate application form, a certification that construction was completed with a notation of any deviations from the conditions in the construction permit, compliance test results, and such additional information as the Department may by law require. A copy of the compliance test results must be submitted to The Department's Tallahassee office as well as the district office or local program office that has compliance jurisdiction over the location where the performance test took place.
[Rules 62-4.030, 62-4.050, 62-4.220 and 62-210.300(2), F.A.C.]

8. Applicable Regulations: Unless otherwise indicated in this permit, the construction/installation and operation of the facility shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S.; Chapters 62-4, 62-204, 62-210, 62-296 and 62-297, F.A.C.; and, the Code of Federal Regulations Title 40, Parts 60 and 61, adopted by reference in Chapter 62-204, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local regulations.
[Rules 62-204.800 and 62-210.300, F.A.C.]

EMISSION LIMITING STANDARDS

9. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions elsewhere in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). If a special compliance test is required (see specific condition 21), the test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

10. Unconfined Emissions of Particulate Matter:

(a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
(b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
(c) Reasonable precautions committed to by the permittee:
- Unconfined fugitive particulate matter emissions that might be generated from various emission points throughout the crushing operation shall be controlled by a water suppression system with spray bars located at the various emissions points of the operation including, but not limited to, the Grizzly feeder, the entrance and exit of the impact crusher, the classifier screens and conveyor drop points.
- All stockpiles, roadways and work-yard, where this crushing operation is located, shall apply water (by water trucks equipped with spray bars) and/or an effective dust suppressant(s) on a regular basis to control any unconfined fugitive particulate matter emissions that may be generated by vehicular traffic or prevailing winds.

(d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.
[Rule 62-296.320(4)(c), F.A.C. ; and, application received July 17, 2000]

11. General Pollutant Emission Limiting Standards:
a. No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
{Permitting note: No vapor control device was deemed necessary at the time of issuance of this permit.}

b. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.

{Permitting note: An objectionable odor is defined in Rule 62-210.200, F.A.C., Definitions, as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

[Rules 62-296.320(1)(a) and (2), F.A.C.]

OPERATIONAL REQUIREMENTS

12. Modifications: No emissions unit or facility shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification.

[Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

13. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's district office and, if applicable, appropriate local program. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.

[Rule 62-4.130, F.A.C.]

14. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly.

[Rule 62-210.650, F.A.C.]

Subsection A.

The emissions units/activities contained in this subsection and their descriptions are as follows:

EMISSIONS UNIT/ACTIVITY NO.	DESCRIPTION
001	400 TPH Hazmag impactor crusher; Model KR131D2912; S/N: HU-1470; Mfg 1994; with associated feeder, classifier screens, and conveyors.
002	Caterpillar diesel engine, Model 3406C, powering the crusher.
003	205 KW Caterpillar, Model 3306, diesel powered generator set which powers the conveyors, classifier screen shaker and the water-spray pump.

Emissions unit 001 is subject to the requirements of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR 60.670 - 60.676) and 40 CFR 60, Subpart A. The diesel engines are required to be permitted pursuant to Rule 62-210.300(1), F.A.C., Permits Required, but are not subject to any testing requirements. They will be allowed to burn new No. 2 fuel oil, or better.

The following specific conditions apply to the above referenced emissions units after construction:

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

1. Hours of Operation: The emissions units/activities are allowed to operate a maximum of 24 hours/day, 364 days per calendar year, but not to exceed 3120 hours per calendar year.
[Rule 62-210.200, F.A.C., Definitions - PTE; and, application received July 17, 2000]

2. Permitted Capacity: The maximum crusher operation process throughput of materials is 400 TPH.
[Rule 62-210.200, F.A.C., Definitions - PTE; and, application received July 17, 2000]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

3. Visible Emissions: The following emission points/activities are subject to the visible emission limits in Table 1.

Table 1

Emission Point/Activity	Visible Emissions Limit (% Opacity) if operating in a PM maintenance area	Visible Emissions Limit (% Opacity) if not operating in a PM maintenance area and subject to 40CFR60, Subpart OOO
Receiving Hopper and Grizzly Feeder	5	10
Crusher	5	15*
Portable Belt Conveyor(s)	5	10**
Screen(s)	5	10
Truck Loading/Unloading	5	<20

- * This limit applies since no capture system is used.
- ** This limit applies to transfer points onto conveyor belts only.

Hillsborough County Particulate Maintenance Area:

The description of the maintenance area and the visible emissions limits are listed below:

That portion of Hillsborough County which falls within the area of the circle having a centerpoint at the intersection of U. S. 41 South and State Road 60 and a radius of 12 kilometers.

The permittee shall not cause, permit, or allow any visible emissions (five percent opacity). **[Rule 62-204.340, F.A.C.; and, Rule 1-3.61, Rules of the Environmental Protection Commission of Hillsborough County]**

4. No Visible Emissions - Saturated Materials: No owner or operator shall cause to be discharged into the atmosphere any visible emissions from:
a. Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.
b. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.
[40 CFR 60.672(h)(1) & (2)]

5. Excess Emissions: The following excess emissions provisions cannot be used to vary any NSPS requirements from any subpart of 40 CFR 60:

a. Excess emissions resulting from start-up, shutdown or malfunction of any emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

6. Test Frequency:

a. Prior to obtaining an operation permit for this facility, the owner or operator shall conduct a visible emissions compliance test to demonstrate compliance with the standards of this permit.
[Rule 62-297.310(7)(a)1., F.A.C.]

b. The owner or operator of the facility shall conduct visible emissions tests annually for all emission points/activities subject to a visible emission standard.
[Rule 62-297.310(7)(a)4.a., F.A.C.]

7. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rule 62-297.310(2), F.A.C.]

8. Test procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C.

[Rule 62-297.310(4), F.A.C.]

9. Determination of Process Variables:
a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

10. Test Notification: The owner or operator shall notify the Department's district office and/or, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[Rule 62-297.310(7)(a)9., F.A.C.; and, 40 CFR 60.8]

[Permitting note: The federal requirements of 40 CFR 60.8 require 30 days notice of the initial test and any tests required under section 114 of the Clean Air Act, but the Department rules require 15 days notice for the annual compliance tests. Unless otherwise advised by the Department, provide 15 days notice prior to conducting annual tests, except for the initial test when 30 days notice is required.]

11. Visible Emissions Test Method: In determining compliance with the standards in 40 CFR 60.672(b) and (c), the owner or operator shall use EPA Method 9 and the procedures in 40 CFR 60.11, with the following additions:
a. The minimum distance between the observer and the emissions source shall be 4.57 meters (15 feet).
b. The observer shall, when possible, select a position that minimizes interference from other fugitive emissions units (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
c. For affected emissions units using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
[40 CFR 60.675(c)(1)(i), (ii) & (iii)]

12. When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR 60.672(b), the duration of the EPA Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
a. There are no individual readings greater than 10 percent opacity; and
b. There are no more than 3 readings of 10 percent for the 1-hour period.
[40 CFR 60.675(c)(3)(i) & (ii)]

13. When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under 40 CFR 60.672(c), the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
a. There are no individual readings greater than 15 percent opacity; and
b. There are no more than 3 readings of 15 percent for the 1-hour period.
[40 CFR 60.675(c)(4)(i) & (ii)]

14. Visible Emissions Test - Emissions Interference: For the method and procedure of 40 CFR 60.675(c), if emissions from two or more emissions units continuously interfere so that the opacity of fugitive emissions from an individual affected emissions unit cannot be read, either of the following procedures may be used:
a. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected emissions units contributing to the emissions stream; or,
b. Separate the emissions so that the opacity of emissions from each affected emissions unit can be read.
[40 CFR 60.675(e)(1)(i) & (ii)]

15. No Tests Required - Saturated Materials: Method 9 performance tests under 40 CFR 60.11 and 40 CFR 60.675 are not required for:
a. Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.
b. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.
[40 CFR 60.675(h)(1) & (2)]

16. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7)(b), F.A.C.]

REPORTING AND RECORDKEEPING REQUIREMENTS

17. Log: The permittee shall maintain a daily log showing at a minimum, the following information:

(a) The location and production rate.
(b) The hours of operation of the crusher system.
(c) Maintenance and repair logs for any work performed on the permitted emissions units.
(d) The use of wetting agents to control unconfined fugitive dust.
(e) Fuel consumption.
This data shall be made available to the Department or its designee upon request.
[Rule 62-4.070(3), F.A.C.]

18. Operation and Maintenance (O&M) Plan and Log: The permittee shall keep an O&M plan and a daily log for the air pollution control equipment with the facility. The log shall include the list of the parameters being monitored, the frequency of the check/maintenance, observations, and comments.
[Rule 62-4.070(3), F.A.C.]

19. Test Reports: The owner or operator shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR 60.672, including reports of opacity observations made using Method 9 to demonstrate compliance with 40 CFR 60.672(b) and 40 CFR 60.672(c).
(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly

computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The method, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, its general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.

[40 CFR 60.676(f); and, Rules 62-297.310(8)(b) and (c)1. - 6., F.A.C.]

20. Change From Saturated to Unsaturated Material: The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to 40 CFR 60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in 40 CFR 60.672(b) and the emission test requirements of 40 CFR 60.11 and 40 CFR 60, Subpart OOO. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in 40 CFR 60.672(h).
[40 CFR 60.676(g)]

21. Records Retention: This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit.
[Rule 62-4.160(14)(a), F.A.C.]

22. Duration of Recordkeeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These records shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
[Rule 62-4.160(14)(b), F.A.C.]

23. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the Standards of Performance for New Stationary Sources, excess emissions shall also be reported in accordance with 40 CFR 60.7.
[Rule 62-4.130, F.A.C.; and, 40 CFR 60.7]

24. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

NSPS GENERAL PROVISIONS

[Note: The numbering of the original rules in the following conditions has been preserved for ease of reference. In cases where the state requirements are more restrictive than the NSPS general requirements, the state requirements shall prevail.]

25. Notification and Recordkeeping:
(a) Any owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(b) The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
(f) The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least three years following the date of such measurements, maintenance, reports, and records.
[40 CFR 60.7]

26. Performance Tests:
(a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).
(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.
(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level

of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present.
[40 CFR 60.8]

27. Compliance with Standards and Maintenance Requirements:
(a) Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.
(b) Compliance with opacity standards in 40 CFR 60.11 shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of 40 CFR 60.11, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5). [Under certain conditions (40 CFR 60.675(c)(3)&(4)), Method 9 observation time may be reduced from 3 hours to 1 hour. Some affected facilities are exempted from Method 9 tests (40 CFR 60.675 (h)).]
(c) The opacity standards set forth in 40 CFR 60.11 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
(d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.
[40 CFR 60.11]

28. Circumvention: No owner or operator subject to the provisions of 40 CFR 60.12 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[40 CFR 60.12]

29. General Notification and Reporting Requirements:
(a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.
(b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[40 CFR 60.19]

30. **Prohibited Operations: Asbestos Containing Materials, 40 CFR 61, Subpart M:** This facility shall **not** process Asbestos Containing Materials (ACM), whether regulated asbestos containing material (RACM), category I or category II, and whether friable or nonfriable when received at the facility.

(1) "Asbestos" means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite and includes trade acronyms products such as amosite.

(2) "Asbestos-containing materials", ACM, means any materials which contain more than one percent asbestos as determined by Polarized Light Microscopy. Based on a representative composite sample.

(3) "Asbestos removal project" means renovation or demolition operation in a facility that involves the removal of a threshold amount of regulated asbestos-containing material.

(4) "Category I Nonfriable Asbestos-Containing Material (ACM)" means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1

percent asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy.

(5) "Category II Nonfriable ACM" means any material, excluding Category I Nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

[40 CFR 61, Subpart M; Chapter 62-257, F.A.C.; and, Rules 62-730.300 and 62-701.520, F.A.C.]

31. Restricted/Prohibited Activities: Co-location at Existing Stationary Source Facilities: This relocatable crusher facility is not authorized to operate on the premises of, or adjacent to, any other permitted air pollution facility, unless the permit for such stationary source includes this crushing unit as an emission unit within such facility's air construction and air operation permits.

MISCELLANEOUS

32. The diesel engines are allowed to fire new No. 2 fuel oil, or better.
[Rules 62-4.070(3) and 62-210.200, Definitions - PTE, F.A.C.]

The following general conditions apply to all permits pursuant to Rule 62-4.160, F.A.C.:

G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

(a) Have access to and copy and records that must be kept under the conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

(a) A description of and cause of non-compliance; and

(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

G.11 This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology *( )*

(b) Determination of Prevention of Significant Deterioration *( )*; and

(c) Compliance with New Source Performance Standards *(X)*.

G.14 The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(c) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(d) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

The permittee is authorized to operate in the following counties where public notice has been published:

Permitted Counties:	Date of Publication:	Permitted Counties:	Date of Publication:	Permitted Counties:	Date of Publication:
Alachua		Hamilton		Okeechobee	
Baker		Hardee		Orange	
Bay		Hendry		Osceola	
Bradford		Hernando		Palm Beach	
Brevard		Highlands		Pasco	
Broward		Hillsborough		Pinellas	
Calhoun		Holmes		Polk	
Charlotte	**Oct 28, 2000**	Indian River		Putnam	
Citrus		Jackson		St. Johns	
Clay		Jefferson		St. Lucie	
Collier		Lafayette		Santa Rosa	
Columbia		Lake		**Sarasota**	**Oct 28, 2000**
Dade		Lee		Seminole	
DeSoto	**Oct 28, 2000**	Leon		Sumter	
Dixie		Levy		Suwannee	
Duval		Liberty		Taylor	
Escambia		Madison		Union	
Flagler		Manatee		Volusia	
Franklin		Marion		Wakulla	
Gasden		Martin		Walton	
Gilchrist		Monroe		Washington	
Glades		Nassau			
Gulf		Okaloosa			

BAR

State of Florida
Department of Environmental Protection

Memo

TO	Howard Rhodes
THRU	Clair Fancy Bruce Mitchell
FROM	William Leffler, P.E.
DATE	November 21, 2000
SUBJECT	Air Construction Permit No.: 7775122-001-AC Better Roads, Inc. Relocatable Concrete, Asphalt, and Rock Crushing Facility Hazmag Model KR131D2912
Day 90	December 17, 2000

This air construction permit is for the construction/installation of a diesel engine powered relocatable concrete, asphalt, and rock crushing facility. The air construction permit will allow the permittee to assemble or install the machinery, conduct performance testing and apply for an air operating permit or subsequent air operating permit amendments when relocating notification is received.

The application history is as follows:

- Application for air construction permit received on July 17, 2000
- Intent to issue an air construction permit clerked on October 2, 2000
- Proof of publication for Sarasota, Charlotte and DeSoto Counties received November 21, 2000

The relocatable concrete, asphalt, and rock crusher is a minor facility. Unconfined fugitive particulate matter emissions from the process will be controlled by a water suppression system, and unconfined fugitive non-process particulate emissions from roadways, stockpiles and work-yard, will be controlled by watering and/or application of some effective dust suppressant(s).

The applicant contemplates use of this facility at sites co-located with asphalt batch plants to prepare recycled asphalt pavement for incorporation as aggregate in new paving mixtures. Modification of stationary source permits for these asphalt batch plants is pending in the South District. Applicant wishes to obtain the right to operate independently of stationary source permits by this application for a relocatable facility permit.

7099 3400 0000 7449 2648

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:
Mr. Joseph B. Boness, III

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Name (Please Print Clearly) (to be completed by mailer)
Mr. Joseph B. Boness, III

Street, Apt. No.; or PO Box No.
P.O. Box 9979

City, State, ZIP+4
Naples, Florida 33941

PS Form 3800, July 1999 — See Reverse for Instructions

Arlington Environmental, Inc.

Post Office Box 657
Okeechobee,
Florida 34973

Telephone: (863)467-0555
Fax: (520)569-8253
E-mail

August 7, 2000

RECEIVED
AUG 10 2000
BUREAU OF AIR REGULATION

Mr. Bill Leffler
Florida Department of
Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida

Re: Better Roads, Inc. - Rock Crusher Permit Application

Dear Mr. Lefler:

According to your request, I am providing the following information regarding the above referenced application:

Manufactu Hazmage

Model No. KR131D2912

Serial No. HU-1470

Year Manufactured 1994

Picture to be sent separately

The unit is to be initially located at the Better Roads Asphalt - Babcock Plant site. The permit number of this plant is D150048-001-AO. 1770048-001-AO
C where is first AC?

Bad Number

Other possible sites include:

Better Roads - Collier County Plant - 0210011-002-AC — 003 - CRUSHER
Better Roads - Lake Placid Plant (Highlands County - 0550014-001-AC — 003 CRUSHER

If further information is needed, please do not hesitate to call.

Sincerely,

William D Arlington

BEST AVAILABLE COPY

[illegible]

CAT 3406 C — Rock Crusher

Performance Spec. — [illegible]

Arrangement — [illegible]

Ser. No. - [illegible] 00337

[illegible]

[illegible]

CAT GEN 3306

Rating [illegible] KVA, [illegible] KW, 60 [illegible], 0.8 PF, 480 V, 308 Amps, 446 Frame, 1800 RPM.

[illegible] No. [illegible]

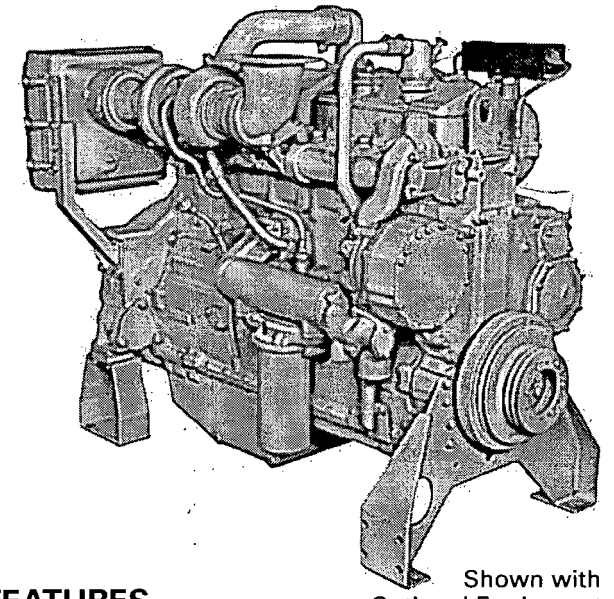
Ser. No. [illegible] 07822

Arrangement No. [illegible]

CATERPILLAR®

Industrial Engine 3406C

322-525 bhp/240-392 bkW
1800-2100 rpm



Shown with Optional Equipment

CATERPILLAR® ENGINE SPECIFICATIONS

In-Line, 6 Cylinder, 4-Stroke-Cycle Diesel
Bore — in (mm) 5.4 (137)
Stroke — in (mm) 6.5 (165)
Displacement — cu in (L) 893 (14.6)
Low Idle (rpm) 600
Rotation (from flywheel end) .. Counterclockwise
Capacity for Liquids — U.S. Gal (L)
  Cooling System (engine only) 9.0 (34.1)
  Lube Oil System (refill) 9.0 (34.1)
Weight, Net Dry (approx) — lb (kg)
  Including Flywheel 2990 (1356)

FEATURES

- **FUEL ECONOMY**
  Consistent performance, variable-timed fuel injection, broad rpm turbocharger match, excellent fuel economy over entire operating range.
- **RELIABILITY AND DIESEL DURABILITY**
  Diesel tough components, precise balance, and conservative speed for smooth operation and long engine life.
- **FLEXIBLE APPLICATION RANGE**
  High torque rise, big displacement, convenient installation, more performance for your money.
- **WORLDWIDE PRODUCT SUPPORT AND PARTS AVAILABILITY**

STANDARD EQUIPMENT

Air intake
  single-stage, dry air cleaner
Cooling
  thermostats and housing, centrifugal gear-driven jacket water
Exhaust
  6-inch dry elbow
Fuel
  filter, priming and transfer pumps
Flywheel and flywheel housing, SAE No. 1
Instruments and gauges
  instrument panel, fuel pressure, lube oil pressure and water temperature gauge, service meter
Lube
  filter, oil cooler
Supports

CATERPILLAR FACILITIES ISO 9001 CERTIFIED

OPTIONAL EQUIPMENT

Air Compressor
Air Intake
  heavy-duty air cleaner, muffler, precleaner
Alternators
Cooling
  expansion tank, heat exchanger, radiator, fans, fan drives, auxiliary water pump, dry charge coolant conditioner
Exhaust
  flexible fittings, mufflers, watercooled manifolds and turbos, flanges
Instruments and gauges
  premium panel 8-gauge, tachometers, tach drives
Power Takeoffs
  auxiliary drives, enclosed clutches, hydraulic pumps, stub shaft
Protection Devices
  alarm switches, oil and water shutoffs, electric and mechanical
Starting
  air, electric

PERFORMANCE DATA

Turbocharged-Aftercooled PA5188

Rating Level	E	D	C	B	A
Rated rpm	2100	2100	2100	2000	1800
Engine Power @ rpm	525 bhp (392 bkW)	515 bhp (384 bkW)	460 bhp (343 bkW)	440 bhp (328 bkW)	420 bhp (313 bkW)

rpm	2100	1800	1500	2100	1800	1500	2100	1800	1500	2000	1800	1500	1800	1700	1500
bhp	525	501	456	515	499	451	460	446	403	440	429	391	420	431	415
lb/bhp-hr	.367	.355	.352	.339	.332	.334	.339	.330	.330	.335	.330	.330	.331	.332	.333
gal/hr	27.4	25.4	22.8	24.9	23.6	21.5	22.3	21.0	19.1	21.0	20.2	18.4	19.8	20.3	19.7

bkW	392	374	340	384	372	337	343	332	301	328	320	291	313	321	309
g/bkW-hr	223	216	214	206	202	203	206	201	201	204	201	201	201	202	203
L/hr	103.9	96.0	86.4	94.4	89.4	81.3	84.3	79.5	72.2	79.6	76.6	69.8	75.1	77.0	74.5

PERFORMANCE DATA

Turbocharged-Aftercooled PA2373

Rating Level	E	D	C	B	A
Rated rpm	2100	2100	2100	2000	1800
Engine Power @ rpm	500 bhp (373 bkW)	480 bhp (358 bkW)	400 bhp (298 bkW)	370 bhp (376 bkW)	325 bhp (242 bkW)

rpm	2100	1800	1500	2100	1800	1500	2100	1800	1500	2000	1800	1500	1800	1700	1500
bhp	500	483	437	480	464	419	400	377	341	370	356	324	325	327	310
lb/bhp-hr	.339	.332	.332	.339	.330	.332	.339	.329	.330	.334	.329	.332	.329	.329	.332
gal/hr	24.2	22.9	20.7	23.2	21.9	19.9	19.4	17.8	16.1	17.7	16.7	15.3	15.3	15.3	14.7

bkW	373	360	326	358	346	313	298	282	254	276	266	241	242	244	232
g/bkW-hr	206	202	202	206	201	202	206	200	201	203	200	202	200	200	202
L/hr	91.7	86.5	78.4	87.9	82.9	75.2	73.4	67.2	60.9	66.9	63.4	58.0	57.8	58.0	55.7

PERFORMANCE DATA

Turbocharged-Aftercooled PA2376

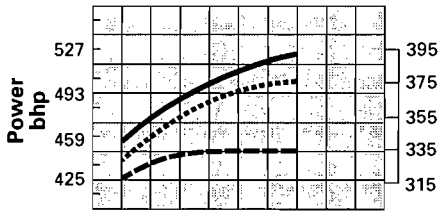
Rating Level	E	D	C	B	A
Rated rpm	2100	2100	2100	2000	1800
Engine Power @ rpm	450 bhp (336 bkW)	420 bhp (313 bkW)	360 bhp (269 bkW)	325 bhp (242 bkW)	322 bhp (240 bkW)

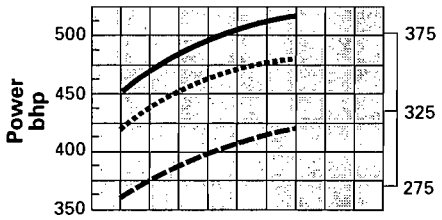
rpm	2100	1800	1500	2100	1800	1500	2100	1800	1500	2000	1800	1500	1800	1700	1500
bhp	450	426	386	420	398	360	360	339	306	325	312	293	322	318	296
lb/bhp-hr	.339	.330	.330	.339	.329	.330	.340	.329	.332	.337	.330	.334	.333	.332	.334
gal/hr	21.8	20.1	18.2	20.3	18.7	17.0	17.5	15.9	14.5	15.6	14.3	13.4	15.3	15.0	14.1

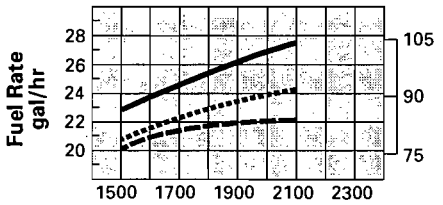
bkW	336	318	288	313	297	268	269	253	229	242	233	211	240	237	221
g/bkW-hr	206	201	201	206	200	201	207	200	202	205	201	203	203	202	203
L/hr	82.4	76.0	68.9	77.0	70.8	64.3	66.3	60.3	54.8	59.2	55.7	50.9	58.0	56.9	53.5

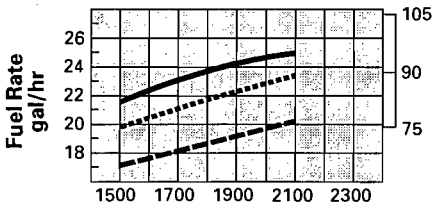
CATERPILLAR®

PERFORMANCE CURVES









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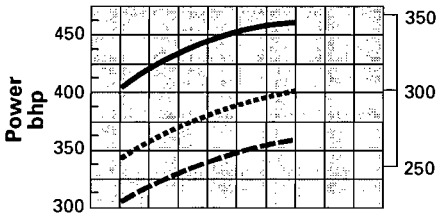
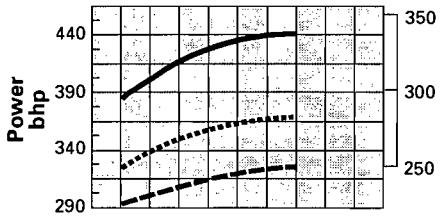
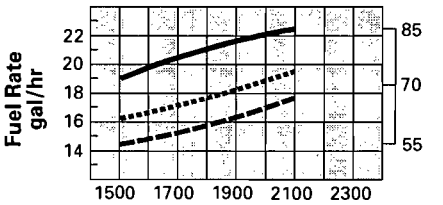
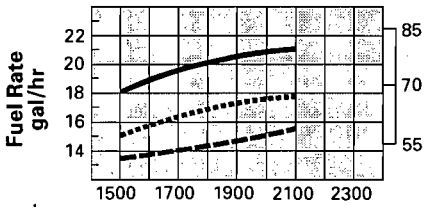
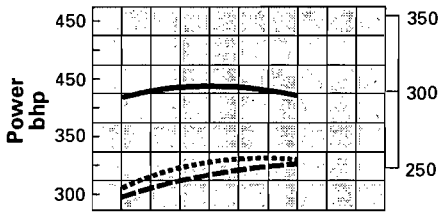
DITA, PA 2373 .....
DITA, PA 2376 – – – – – – –

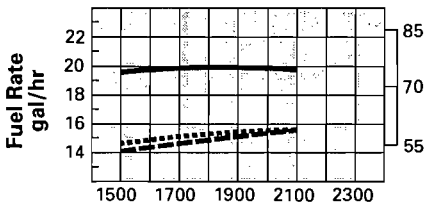












INDUSTRIAL RATINGS

IND-E

IND-E ratings are for service where power is required for a short time for initial starting or sudden overload. For emergency service where standard power is unavailable. The maximum horsepower and speed capability of the engine can be utilized for a maximum of 15 uninterrupted minutes followed by one hour at intermittent or duration of the emergency. Operating limits are:

1. Time at full load not to exceed 5% of the duty cycle or 15 minutes max.
2. Load factor limited to 35%.
3. The maximum horsepower and speed capability of the engine can be utilized for a maximum of 15 minutes followed by one hour at intermittent or duration of the emergency.
4. Typical operating hours per year is 500.

Examples of an IND-E industrial application are:

1. Standby centrifugal water pumps
2. Oil field well servicing
3. Crash trucks
4. Gas turbine starters

IND-D

IND-D ratings are for service where rated power is required for period overloads. The maximum horsepower and speed capability of the engine can be utilized for a maximum of 30 uninterrupted minutes followed by one hour at intermittent. Operating limits are:

1. Time at full load not to exceed 10% of the duty cycle or 30 min max.
2. Load factor limited to 50%.
3. Full load operation to a maximum of 30 minutes followed by one hour at intermittent.
4. Typical operating hours per year is 1500.

Examples of an IND-D industrial application are:

1. Offshore cranes
2. Runway snowblowers
3. Water well drills
4. Portable air compressors
5. Fire pump certification power (advertised power)

IND-C (INTERMITTENT)

IND-C ratings are for service where power and/or speed are cyclic. The horsepower and speed of the engine which can be utilized for one uninterrupted hour followed by one hour of operation at or below the continuous rating. Operating limits are:

1. Time at full load not to exceed 50% of the duty cycle or one hour max.
2. Load factor limited to 70%.
3. Full load operation limited to one uninterrupted hour followed by one hour of operation at or below the continuous rating.
4. Typical operating hours per year is 3000 hours.

Examples of an IND-C industrial application are:

1. Agricultural tractors, harvesters, and combines
2. Truck – off highway
3. Fire pump application power (90% of certified power)
4. Blast hole drills
5. Rock crushers and wood chippers with high torque rise
6. Oil field hoisting

IND-B

IND-B ratings are for moderate-duty service where power and/or speed are cyclic. Operating limits are:

1. Time at full load not to exceed 80% of the duty cycle.
2. Load factor limited to 85%.
3. Typical operating hours per year is 4000 hours.

Examples of an IND-B industrial application are:

1. Irrigation where normal pump demand is 85% of engine rating
2. Oil field mechanical pumping/drilling
3. Stationary/plant air compressors

IND-A (CONTINUOUS)

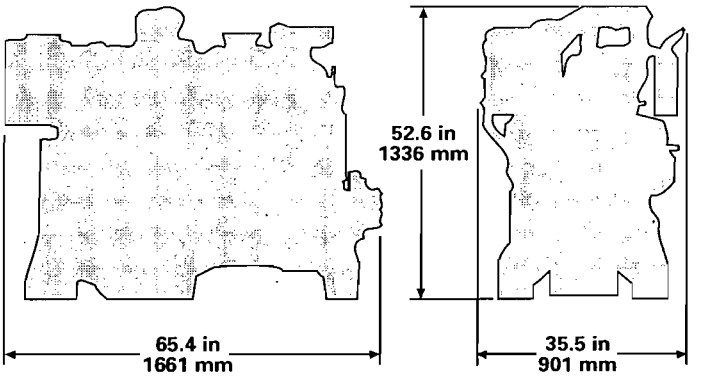
IND-A continuous ratings are for heavy-duty service when the engine is operated at rated load and speed up to 100% of the time without interruption or load cycling. Operating limits are:

1. No hour or load factor limitation.
2. Continuous operation at full load.
3. Average load factor to approach 100%.
4. Typical operating hours per year is over 4000 hrs.

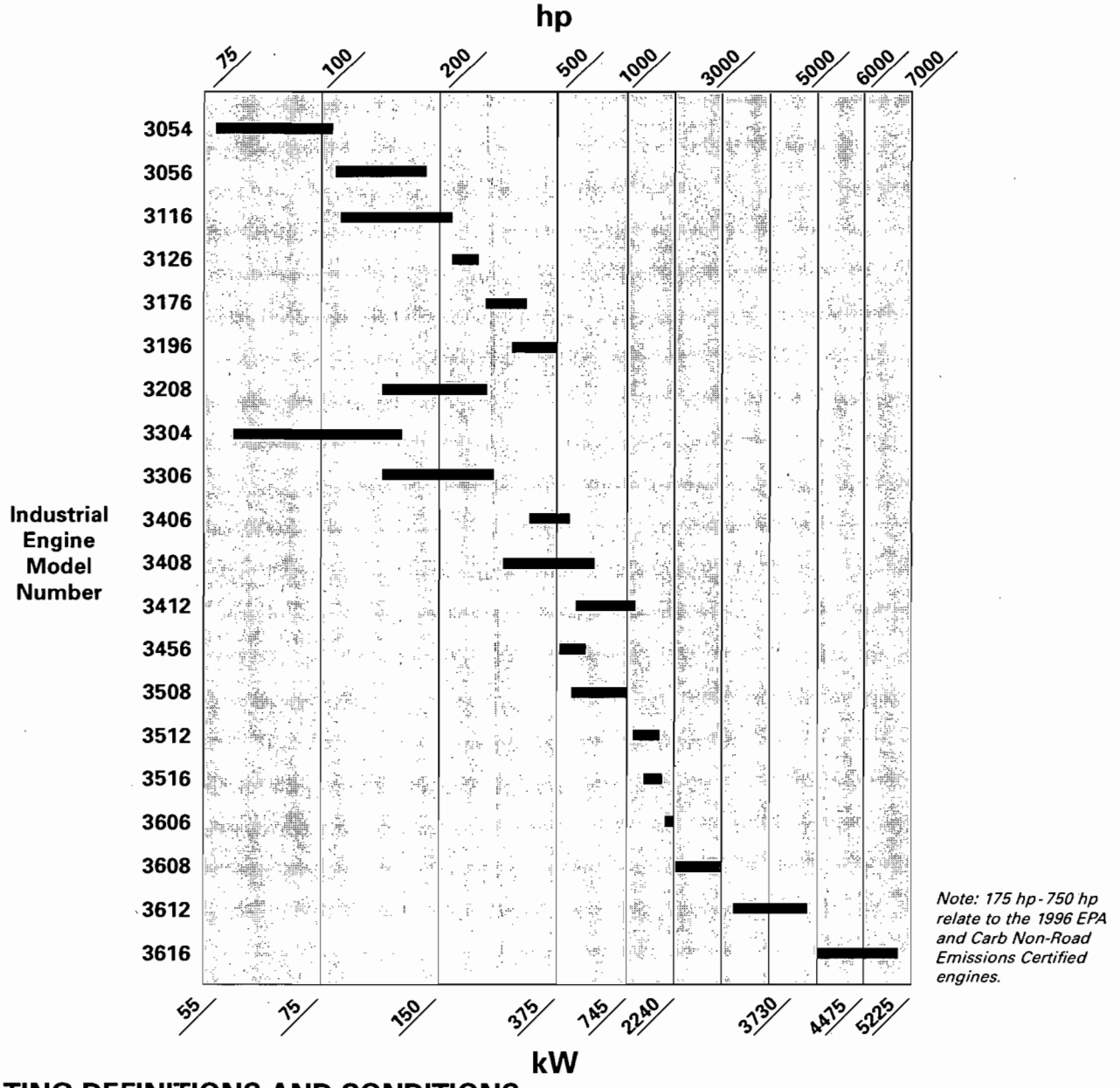
Examples of an IND-A industrial application are:

1. Pipeline pumping
2. Ventilation
3. Customer specs

DIMENSIONS



Match a Reliable Cat® Diesel to Your Application.



Note: 175 hp - 750 hp relate to the 1996 EPA and Carb Non-Road Emissions Certified engines.

RATING DEFINITIONS AND CONDITIONS

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions.

Additional ratings are available for specific customer requirements. Consult your Caterpillar dealer.

Fuel rates are based on ISO3046 and on fuel oil of 35° API (60° F or 16° C) gravity having an LHV of 18 390 Btu/lb (42 780 kJ/kg) when used at 85° F (29° C) and weighing 7.001 lbs/U.S. gal. (838.9 g/liter).

Materials and specifications are subject to change without notice.

The International System of Units (SI) is used in this publication.

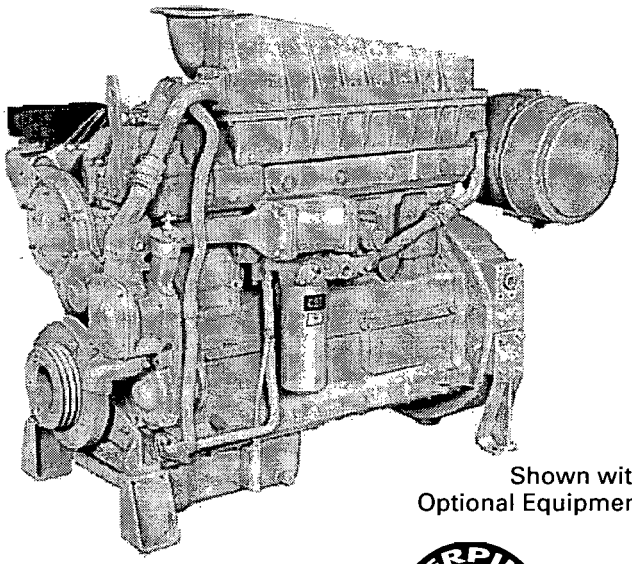
LEHH8327
Supersedes LEHH5438

Printed in U.S.A.

CATERPILLAR®

Industrial Engine 3306

125-325 bhp/93-243 kW
2000-2200 rpm



Shown with Optional Equipment

SPECIFICATIONS

In-Line, 6 Cylinder, 4-Stroke-Cycle Diesel

Bore—in (mm)	4.75 (121)
Stroke—in (mm)	6.00 (152)
Displacement—cu in (L)	638 (10.5)
Combustion System	Direct injection
Rotation (from flywheel end)	Counterclockwise
Capacity for Liquids—U.S. Gal (L)	
Cooling System (engine only)	
DITA	4.8 (18.2)
DINA & DIT	4.2 (15.9)
Lube Oil System (refill)	7.3 (27.4)
Engine Weight, Net Dry (approx)—lb (kg)	
Turbocharged (T)	2160 (980)
Turbocharged-Aftercooled (TA)	2220 (1007)
Naturally Aspirated (NA)	2050 (930)

CATERPILLAR ENGINE FACILITIES ISO 9001 CERTIFIED

FEATURES

- **FUEL ECONOMY**
  Consistent performance . . . variable-timed fuel injection . . . broad rpm turbocharger match . . . excellent fuel economy over entire operating range.
- **RELIABILITY AND DIESEL DURABILITY**
  Diesel tough components . . . precise balance and conservative speed for smooth operation and long engine life.
- **FLEXIBLE APPLICATION RANGE**
  High torque rise . . . big displacement . . . convenient installation . . . more performance for your money.
- **WORLDWIDE PRODUCT SUPPORT AND PARTS AVAILABILITY**

STANDARD EQUIPMENT

Air intake
  single stage, dry air cleaner
Cooling
  lube oil, jacket water pump, thermostats
Exhaust
  dry, flanged outlet
Fuel
  priming and transfer pumps. filter
Instruments and Gauges
  instrument panel, fuel pressure and lube oil pressure gauges, service meter
Lubricating
  oil cooler, oil filter
Flywheel and Flywheel Housing, SAE No.1

OPTIONAL EQUIPMENT

Alternator
Cooling
  raditor, fan drive, belt tightener, Vee belt
Exhaust
  flexible fittings, mufflers, watercooled manifolds
Instruments and Gauges
  electric gauges, tachometer
Lubricating
  dipstick, oil filler, oil filter
Power Takeoffs
  auxiliary drive pulleys, front and rear enclosed clutches, hydraulic pump
Protection Devices
  electrical and mechanical shutoffs, oil pressure and water temperature alarm switches
Starting
  air, electric

PERFORMANCE DATA

Turbocharged-Aftercooled

Rating Level	E			D			C			B			A		
Rated rpm	2200			2200			2200			2000			2000		
Engine Power@rpm	335 bhp (250 kW)			330 bhp (249 kW)			325 bhp (242 kW)			295 bhp (220 kW)			275 bhp (194 kW)		
rpm	2200	1800	1500	2200	1800	1500	2200	1800	1500	2000	1700	1500	2000	1700	1500
bhp	335	331	317	330	318	300	325	302	281	295	280	261	275	259	244
lb/hp-hr	.380	.358	.339	.381	.357	.349	.380	.353	.340	.357	.350	.340	.357	.345	.340
gal/hr	18.2	16.9	15.3	18.0	16.2	14.9	17.6	15.2	13.7	15.0	14.0	12.7	14.0	12.8	11.9
kW	250	247	236	249	240	226	242	225	210	220	209	195	205	193	182
g/kW-hr	231	218	206	232	217	212	231	215	207	217	213	207	217	210	207
L/hr	68.8	64.1	58.0	68.1	61.3	56.5	66.7	57.7	51.7	56.9	53.0	48.0	53.0	48.3	44.9

Turbocharged-Aftercooled

Rating Level	E			D			C			B			A		
Rated rpm	2200			2200			2200			2000			2000		
Engine Power@rpm	325 bhp (243 kW)			310 bhp (231 kW)			300 bhp (224 kW)			275 bhp (205 kW)			260 bhp (194 kW)		
rpm	2200	1800	1500	2200	1800	1500	2200	1800	1500	2000	1700	1500	2000	1700	1500
bhp	325	323	310	310	307	281	300	285	250	275	261	213	260	230	180
lb/hp-hr	.385	.362	.362	.381	.360	.358	.380	.358	.357	.363	.355	.357	.363	.355	.360
gal/hr	17.9	16.7	16.0	16.9	15.8	14.4	16.3	14.6	12.7	14.3	13.2	10.9	13.5	11.7	9.3
kW	243	241	231	231	229	210	224	213	187	205	195	159	194	172	134
g/kW-hr	234	220	220	232	219	218	231	218	217	221	216	217	221	216	219
L/hr	67.6	63.2	60.6	63.9	59.8	54.5	61.6	55.2	48.2	54.0	50.1	41.1	51.1	44.2	35.0

Turbocharged

Rating Level	E			D			C			B			A		
Rated rpm	2200			2200			2200			2000			2000		
Engine Power@rpm	275 bhp (205 kW)			268 bhp (200 kW)			249 bhp (186 kW)			225 bhp (168 kW)			190 bhp (142 kW)		
rpm	2200	1800	1500	2200	1800	1500	2200	1800	1500	2000	1700	1500	2000	1700	1500
bhp	275	255	219	268	244	205	249	214	178	225	191	169	190	165	145
lb/hp-hr	.385	.372	.373	.383	.368	.372	.378	.365	.368	.368	.365	.367	.373	.363	.365
gal/hr	15.1	13.5	11.7	14.7	12.8	10.9	13.4	11.2	9.4	11.8	10.0	8.8	10.1	8.6	7.6
kW	205	190	163	200	182	153	186	160	133	168	143	126	142	123	108
g/kW-hr	234	226	227	233	224	226	230	222	224	224	222	223	227	221	222
L/hr	57.2	51.2	44.2	55.5	48.6	41.2	50.9	42.2	35.4	44.8	37.7	33.5	38.3	32.4	28.6

NA

Rating Level	E			D			C			B			A		
Rated rpm	2200			2200			2200			2000			2000		
Engine Power@rpm	170 bhp (127 kW)			160 bhp (120 kW)			150 bhp (112 kW)			135 bhp (101 kW)			125 bhp (93 kW)		
rpm	2200	1800	1500	2200	1800	1500	2200	1800	1500	2000	1700	1500	2000	1700	1500
bhp	170	156	140	160	149	135	150	129	107	135	115	102	125	106	94
lb/hp-hr	.406	.381	.388	.401	.376	.380	.399	.378	.367	.386	.376	.368	.386	.375	.368
gal/hr	9.9	8.5	7.8	9.2	8.0	7.3	8.6	7.0	5.6	7.4	6.2	5.4	6.9	5.7	4.9
kW	127	116	104	120	111	100	112	96	80	101	86	76	93	79	70
g/kW-hr	247	232	236	244	229	231	243	230	223	235	229	224	235	228	224
L/hr	37.3	32.2	29.4	34.7	30.3	27.7	32.4	26.4	21.2	28.2	23.4	20.3	26.1	21.5	18.7

CATERPILLAR®

RATING CURVES

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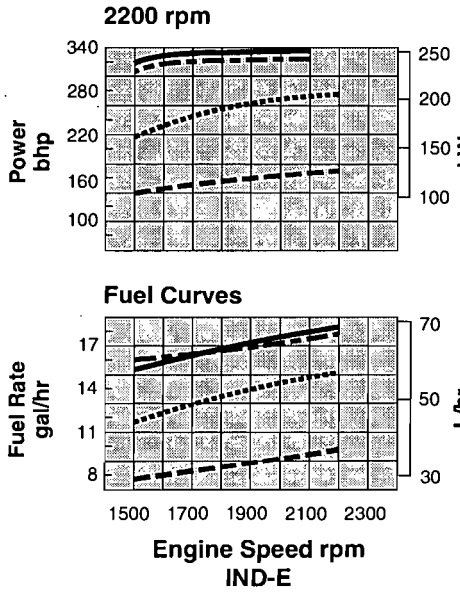
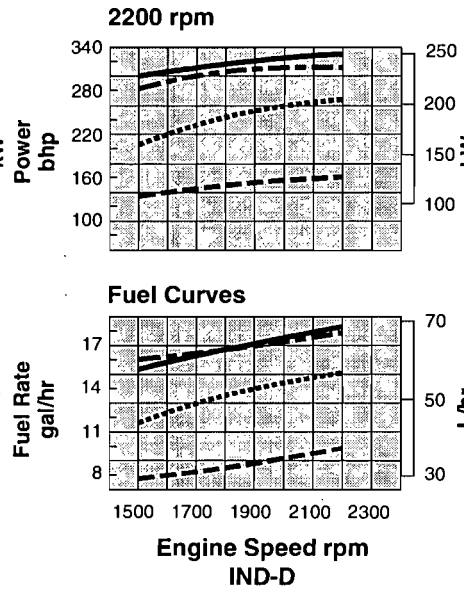
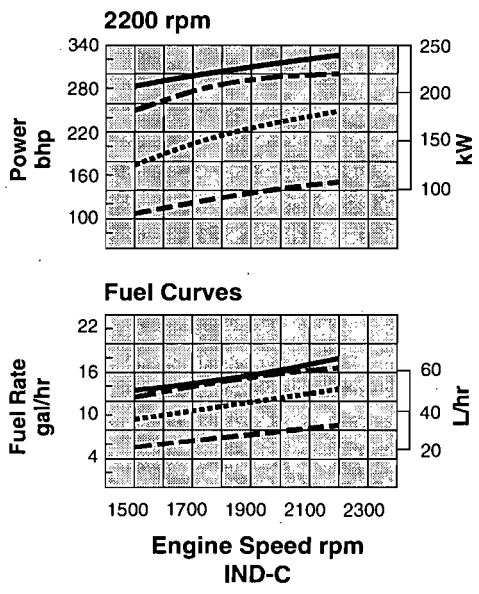






INDUSTRIAL RATINGS

IND-E

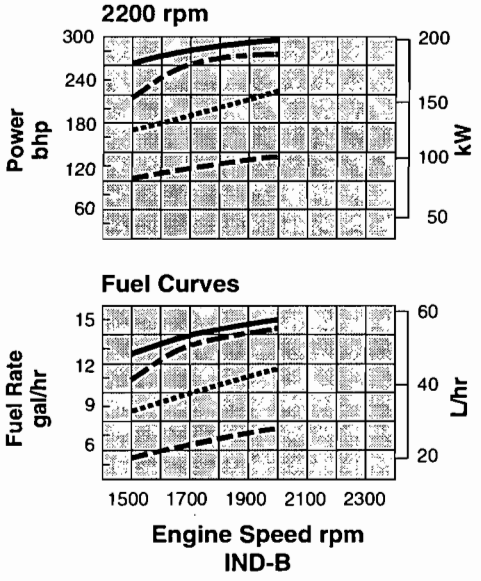
IND-E ratings are for service where speed and power are required for a short time for initial starting or sudden overload. For emergency service where standard power is unavailable. The maximum horsepower and speed capability of the engine can be utilized for a maximum of 15 uninterrupted minutes followed by one hour at intermittent or duration of the emergency. Operating limits are:

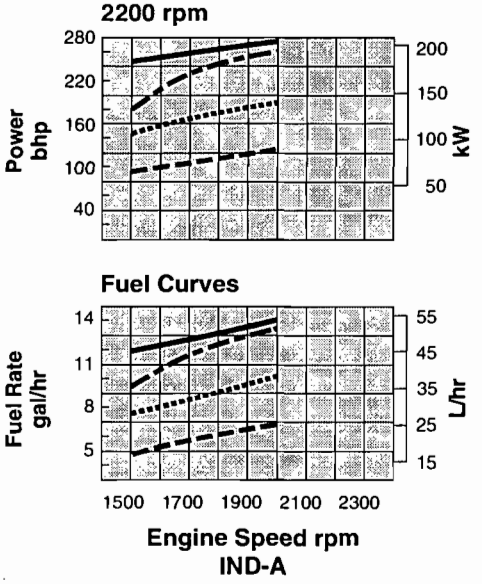
1. Time at full load not to exceed 5% of the duty cycle or 15 minutes max.
2. Load factor limited to 35%.
3. The maximum horsepower and speed capability of the engine can bc utilized for a maximum of 15 minutes followed by one hour at intermittent or duration of the emergency.
4. Typical operating hours per year is 500.

Examples of an IND-E industrial application are:

1. Standby centrifugal water pumps
2. Oil field well servicing
3. Crash trucks
4. Gas turbine starters

RATING CURVES





INDUSTRIAL RATINGS/cont'd

IND-D

IND-D ratings are for service where rated power is required by period overloads. The maximum horse-power and speed capability of the engine can be utilized for a minimum of 30 uninterrupted minutes followed by one hour at intermittent. Operating limits are:

1. Time at full load not to exceed 10% of the duty cycle or 30 min max
2. Load factor limited to 50%.
3. Full load operation to a maximum of 30 minutes followed by one hour at intermittent.
4. Typical operating hours per year is 1500.

Examples of an IND-D industrial application are:

1. Offshore cranes
2. Runway snowblowers
3. Water well drills
4. Portable air compressors
5. Fire pump certification power (advertised power)

IND-C (INTERMITTENT)

IND-C ratings are for service where power and/or speed are cyclic. The horsepower and speed of the engine which can be utilized for one uninterrupted hour followed by one hour of operation at or below the continuous rating. Operating limits are:

1. Time at full load not to exceed 50% of the duty cycle or one hour max.
2. Load factor limited to 70%.
3. Full load operation limited to one uninterrupted hour followed by one hour of operation at or below the continuous rating.
4. Typical operating hours per year is 3000 hours.

Examples of an IND-C industrial application are:

1. Agricultural tractors, harvesters, and combines
2. Truck – off highway
3. Fire pump application power (90% of certified power)
4. Blast hole drills
5. Rock crushers and wood chippers with high torque rise
6. Oil field hoisting

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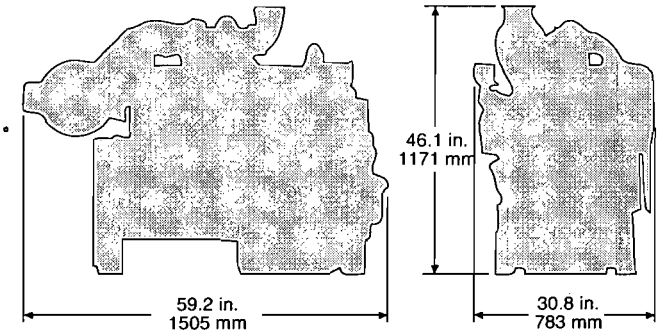
DIMENSIONS



INDUSTRIAL RATINGS

IND-B

IND-B ratings are for moderate-duty service where power and/or speed are cyclic.
Operating limits are:

1. Time at full load not to exceed 80% of the duty cycle.
2. Load factor limited to 85%.
3. Typical operating hours per year is 4000 hours.

Examples of an IND-B industrial application are:

1. Irrigation where normal pump demand is 85% of engine rating
2. Oil field mechanical pumping/drilling
3. Stationary/plant air compressors

IND-A (CONTINUOUS)

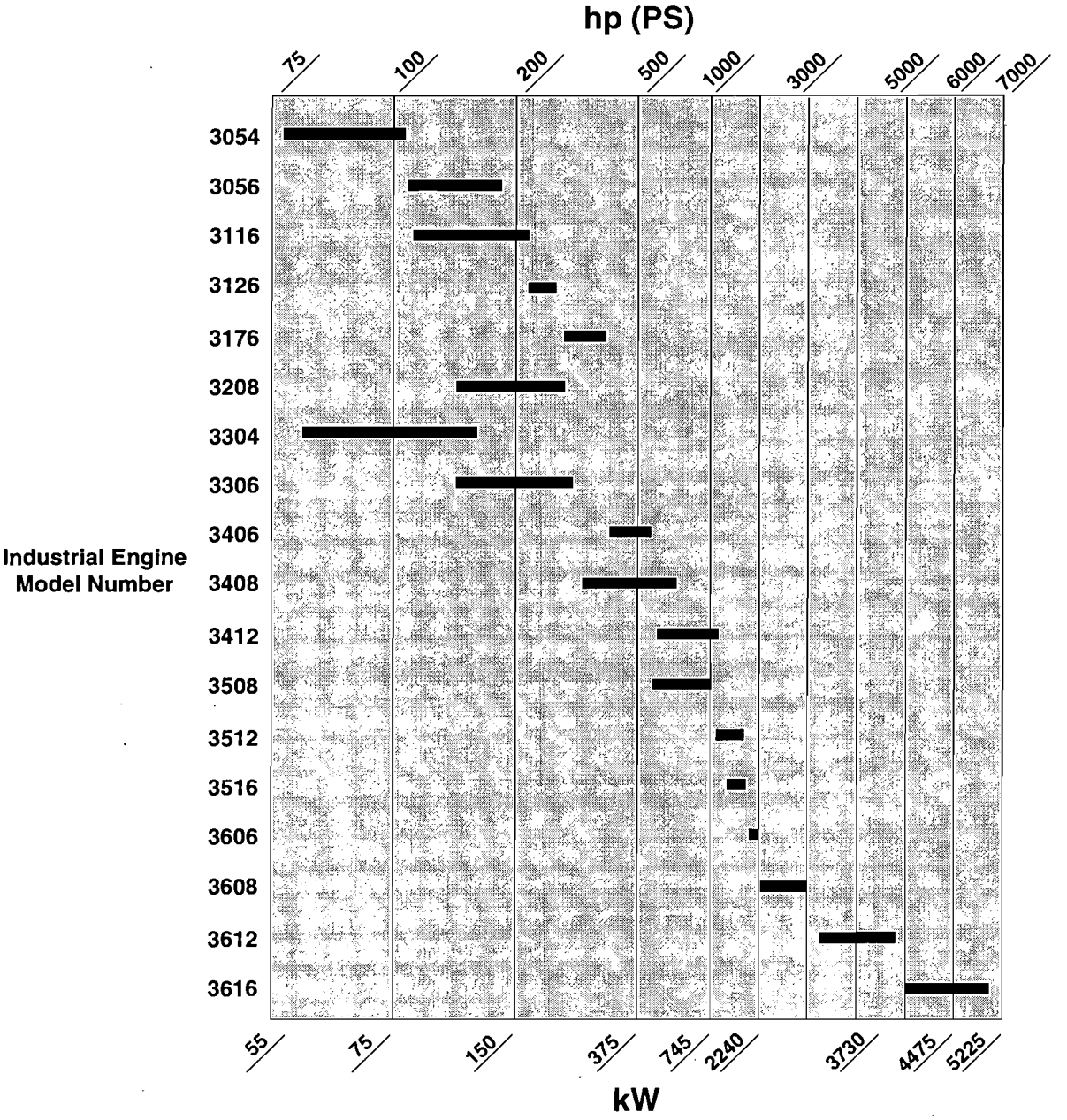
Continuous ratings are for heavy-duty service when the engine is operated at rated load and speed up to 100% of the time without interruption or load cycling. Operating limits are:

1. No hour or load factor limitation.
2. Continuous operation at full load.
3. Average load factor to approach 100%.
4. Typical operating hours per year is over 4000 hours.

Examples of an IND-A industrial application are:

1. Pipeline pumping
2. Ventilation
3. Customer specs

Match a Reliable Cat® Diesel to Your Application.



RATING DEFINITIONS & CONDITIONS

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions.

Additional ratings are available for specific customer requirements. Consult your Caterpillar dealer.

Fuel rates are based on ISO3046 and on fuel oil of 35° API (60° F or 16° C) gravity having an LHV of 18 390 Btu/lb (42 780 kJ/kg) when used at 85° F (29° C) and weighing 7.001 lbs/U.S. gal. (838.9 g/L).

LEHH5448 (10-95)
Supersedes LEHA8583, LEHH2214, LEHH2215, LEHH2216, LEHH4119, LEHH6238, LEHH8586

under § 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: § 60.663(e).

Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

SOURCE: 51 FR 31337, Aug. 1, 1985, unless otherwise noted.

§ 60.670 Applicability and designation of affected facility.

(a) Except as provided in paragraphs (b), (c) and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station.

(b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in § 60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in § 60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in § 60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in § 60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§ 60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator seeking to comply with this paragraph shall comply with the reporting requirements of § 60.676 (a) and (b).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§ 60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in § 60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(b) Sand and Gravel.

(c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(d) Rock Salt.

(e) Gypsum.

(f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

(g) Pumice.

(h) Gilsonite.

(i) Talc and Pyrophyllite.

(j) Boron, including Borax, Kernite, and Colemanite.

(k) Barite.

(l) Fluorospar.

(m) Feldspar.

(n) Diatomite.

(o) Perlite.

(p) Vermiculite.

(q) Mica.

(r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in § 60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging oper-

ation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

§ 60.672 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm; or

(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of § 60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d) and (e) of this section.

(c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in § 60.671.

(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under § 60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under § 60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals ±1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

§ 60.675 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in § 60.272(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

(c) In determining compliance with the particulate matter standards in § 60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in § 60.11, with the following additions:

(1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(3) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(d) In determining compliance with § 60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read,

either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(f) To comply with § 60.676(d), the owner or operator shall record the measurements as required § 60.676(c) using the monitoring devices in § 60.674 (a) and (b) during each particulate matter run and shall determine the averages.

[54 FR 6680, Feb. 14, 1989]

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with § 60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in tons of the existing storage bin being replaced and

(ii) The rated capacity in tons of replacement storage bins.

(b) Each owner or operator seeking to comply with § 60.670(d) shall submit the following data to the Director of the Emission Standards and Engineering Division, (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

(1) The information described in § 60.676(a).

(2) A description of the control device used to reduce particulate matter emissions from the existing facility and a list of all other pieces of equipment controlled by the same control device; and

(3) The estimated age of the existing facility.

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ±30 percent from the averaged determined during the most recent performance test.

(e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in § 60.672, including reports of opacity observations made using Method 9 to demonstrate compliance with § 60.672 (b) and (c) and reports of observations using Method 22 to demonstrate compliance with § 60.672(e).

(g) The requirements of this paragraph remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with paragraphs (a), (c), (d), (e), and (f) of this section, provided that they comply with requirements established by the State. Compliance with para-

graph (b) of this section will still be required.

(Approved by the Office of Management and Budget under control number 2060-0050)

[51 FR 31337, Aug. 1, 1985, as amended at 54 FR 6680, Feb. 14, 1989]

Subpart PPP—Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants

SOURCE: 50 FR 7699, Feb. 25, 1985, unless otherwise noted.

§ 60.680 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each rotary spin wool fiberglass insulation manufacturing line.

(b) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after February 7, 1984, is subject to the requirements of this subpart.

§ 60.681 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

Glass pull rate means the mass of molten glass utilized in the manufacture of wool fiberglass insulation at a single manufacturing line in a specified time period.

Manufacturing line means the manufacturing equipment comprising the forming section, where molten glass is fiberized and a fiberglass mat is formed; the curing section, where the binder resin in the mat is thermally "set;" and the cooling section, where the mat is cooled.

Rotary spin means a process used to produce wool fiberglass insulation by forcing molten glass through numerous small orifices in the side wall of a spinner to form continuous glass fibers that are then broken into discrete lengths by high velocity air flow.

Wool fiberglass insulation means a thermal insulation material composed of glass fibers and made from glass produced or melted at the same facility where the manufacturing line is located.

§ 60.682 Standard for particulate matter.

On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of 5.5 kg/Mg (11.0 lb/ton) of glass pulled.

§ 60.683 Monitoring of operations.

(a) An owner or operator subject to the provisions of this subpart who uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. The pressure drop monitor is to be certified by its manufacturer to be accurate within ±250 pascals (±1 inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within ±5 percent over its operating range.

(b) An owner or operator subject to the provisions of this subpart who uses a wet electrostatic precipitator control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the primary and secondary current (amperes) and voltage in each electrical field and the inlet water flow rate. In addition, the owner or operator shall determine the total residue (total solids) content of the water entering the control device once per day using Method 209A, "Total Residue Dried at 103-105 °C," in *Standard Methods for the Examination of Water and Wastewater,* 15th Edition, 1980 (incorporated by reference—see § 60.17). Total residue shall be reported as percent by weight. All monitoring devices required under this paragraph are to be certified by their manufacturers to be accurate within ±5 percent over their operating range.

(c) All monitoring devices required under this section are to be recalibrat-

PERFORMANCE DATA

Turbocharged-Aftercooled PA5188

Rating Level	E	D	C	B	A
Rated rpm	2100	2100	2100	2000	1800
Engine Power @ rpm	525 bhp (392 bkW)	515 bhp (384 bkW)	460 bhp (343 bkW)	440 bhp (328 bkW)	420 bhp (313 bkW)

rpm	2100	1800	1500	2100	1800	1500	2100	1800	1500	2000	1800	1500	1800	1700	1500
bhp	525	501	456	515	499	451	460	446	403	440	429	391	420	431	415
lb/bhp-hr	.367	.355	.352	.339	.332	.334	.339	.330	.330	.335	.330	.330	.331	.332	.333
gal/hr	27.4	25.4	22.8	24.9	23.6	21.5	22.3	21.0	19.1	21.0	20.2	18.4	19.8	20.3	19.7

bkW	392	374	340	384	372	337	343	332	301	328	320	291	313	321	309
g/bkW-hr	223	216	214	206	202	203	206	201	201	204	201	201	201	202	203
L/hr	103.9	96.0	86.4	94.4	89.4	81.3	84.3	79.5	72.2	79.6	76.6	69.8	75.1	77.0	74.5

PERFORMANCE DATA

Turbocharged-Aftercooled PA2373

Rating Level	E	D	C	B	A
Rated rpm	2100	2100	2100	2000	1800
Engine Power @ rpm	500 bhp (373 bkW)	480 bhp (358 bkW)	400 bhp (298 bkW)	370 bhp (376 bkW)	325 bhp (242 bkW)

rpm	2100	1800	1500	2100	1800	1500	2100	1800	1500	2000	1800	1500	1800	1700	1500
bhp	500	483	437	480	464	419	400	377	341	370	356	324	325	327	310
lb/bhp-hr	.339	.332	.332	.339	.330	.332	.339	.329	.330	.334	.329	.332	.329	.329	.332
gal/hr	24.2	22.9	20.7	23.2	21.9	19.9	19.4	17.8	16.1	17.7	16.7	15.3	15.3	15.3	14.7

bkW	373	360	326	358	346	313	298	282	254	276	266	241	242	244	232
g/bkW-hr	206	202	202	206	201	202	206	200	201	203	200	202	200	200	202
L/hr	91.7	86.5	78.4	87.9	82.9	75.2	73.4	67.2	60.9	66.9	63.4	58.0	57.8	58.0	55.7

PERFORMANCE DATA

Turbocharged-Aftercooled PA2376

Rating Level	E	D	C	B	A
Rated rpm	2100	2100	2100	2000	1800
Engine Power @ rpm	450 bhp (336 bkW)	420 bhp (313 bkW)	360 bhp (269 bkW)	325 bhp (242 bkW)	322 bhp (240 bkW)

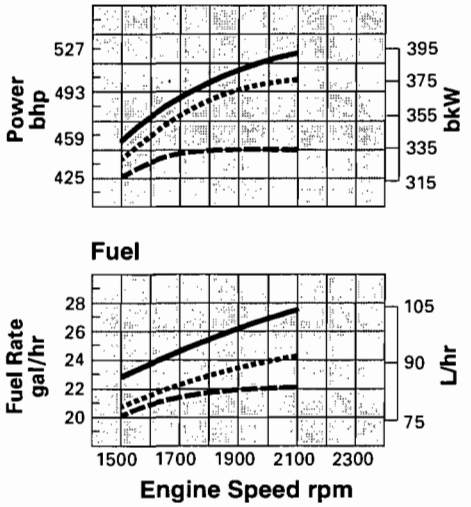
rpm	2100	1800	1500	2100	1800	1500	2100	1800	1500	2000	1800	1500	1800	1700	1500
bhp	450	426	386	420	398	360	360	339	306	325	312	293	322	318	296
lb/bhp-hr	.339	.330	.330	.339	.329	.330	.340	.329	.332	.337	.330	.334	.333	.332	.334
gal/hr	21.8	20.1	18.2	20.3	18.7	17.0	17.5	15.9	14.5	15.6	14.3	13.4	15.3	15.0	14.1

bkW	336	318	288	313	297	268	269	253	229	242	233	211	240	237	221
g/bkW-hr	206	201	201	206	200	201	207	200	202	205	201	203	203	202	203
L/hr	82.4	76.0	68.9	77.0	70.8	64.3	66.3	60.3	54.8	59.2	55.7	50.9	58.0	56.9	53.5

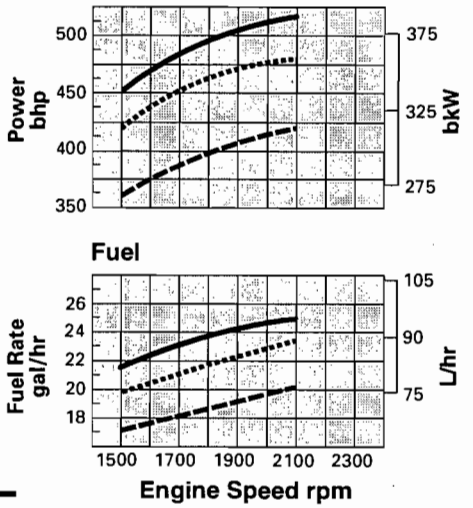
CATERPILLAR®

PERFORMANCE CURVES

E Rating

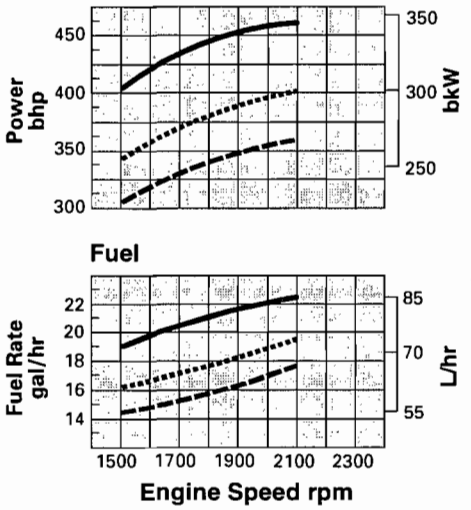


D Rating



DITA, PA 5188 ——————
DITA, PA 2373 .....
DITA, PA 2376 – – – – – –

C Rating



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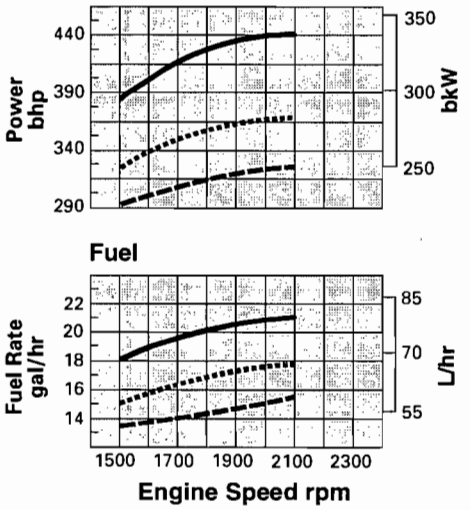
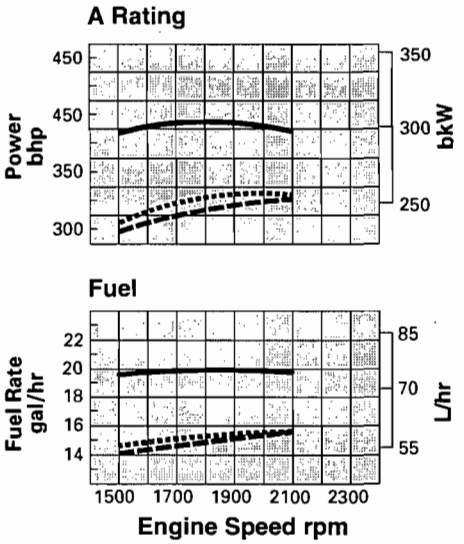


A Rating



INDUSTRIAL RATINGS

IND-E

IND-E ratings are for service where power is required for a short time for initial starting or sudden overload. For emergency service where standard power is unavailable. The maximum horsepower and speed capability of the engine can be utilized for a maximum of 15 uninterrupted minutes followed by one hour at intermittent or duration of the emergency. Operating limits are:

1. Time at full load not to exceed 5% of the duty cycle or 15 minutes max.
2. Load factor limited to 35%.
3. The maximum horsepower and speed capability of the engine can be utilized for a maximum of 15 minutes followed by one hour at intermittent or duration of the emergency.
4. Typical operating hours per year is 500.

Examples of an IND-E industrial application are:

1. Standby centrifugal water pumps
2. Oil field well servicing
3. Crash trucks
4. Gas turbine starters

IND-D

IND-D ratings are for service where rated power is required for period overloads. The maximum horsepower and speed capability of the engine can be utilized for a maximum of 30 uninterrupted minutes followed by one hour at intermittent. Operating limits are:

1. Time at full load not to exceed 10% of the duty cycle or 30 min max.
2. Load factor limited to 50%.
3. Full load operation to a maximum of 30 minutes followed by one hour at intermittent.
4. Typical operating hours per year is 1500.

Examples of an IND-D industrial application are:

1. Offshore cranes
2. Runway snowblowers
3. Water well drills
4. Portable air compressors
5. Fire pump certification power (advertised power)

IND-C (INTERMITTENT)

IND-C ratings are for service where power and/or speed are cyclic. The horsepower and speed of the engine which can be utilized for one uninterrupted hour followed by one hour of operation at or below the continuous rating. Operating limits are:

1. Time at full load not to exceed 50% of the duty cycle or one hour max.
2. Load factor limited to 70%.
3. Full load operation limited to one uninterrupted hour followed by one hour of operation at or below the continuous rating.
4. Typical operating hours per year is 3000 hours.

Examples of an IND-C industrial application are:

1. Agricultural tractors, harvesters, and combines
2. Truck – off highway
3. Fire pump application power (90% of certified power)
4. Blast hole drills
5. Rock crushers and wood chippers with high torque rise
6. Oil field hoisting

IND-B

IND-B ratings are for moderate-duty service where power and/or speed are cyclic. Operating limits are:

1. Time at full load not to exceed 80% of the duty cycle.
2. Load factor limited to 85%.
3. Typical operating hours per year is 4000 hours.

Examples of an IND-B industrial application are:

1. Irrigation where normal pump demand is 85% of engine rating
2. Oil field mechanical pumping/drilling
3. Stationary/plant air compressors

IND-A (CONTINUOUS)

IND-A continuous ratings are for heavy-duty service when the engine is operated at rated load and speed up to 100% of the time without interruption or load cycling. Operating limits are:

1. No hour or load factor limitation.
2. Continuous operation at full load.
3. Average load factor to approach 100%.
4. Typical operating hours per year is over 4000 hrs.

Examples of an IND-A industrial application are:

1. Pipeline pumping
2. Ventilation
3. Customer specs

FIRE Database- Version 6.22

SCC	30502001		
Level One	Industrial Processes		
Level Two	Mineral Products		
Level Three	Stone Quarrying - Processing (See also 305320)		
Level Four	Primary Crushing		
Standard AFS Unit	Tons Raw Material		
Pollutant	PM, total	**CAS**	
Primary Control	UNCONTROLLED		
Secondary Control			
Emission Factor	7.000E-4	Lb Tons Raw Material Processed	
Standard AFS Unit?	Yes	**QUALITY** E	
References	EPA. 1995. Section 11.19.2, Construction Aggregate Processing: Crushed Stone Processing. In: Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition, AP-42. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina.		
Notes			
Multiple Factor Info			

SCC	30502002		
Level One	Industrial Processes		
Level Two	Mineral Products		
Level Three	Stone Quarrying - Processing (See also 305320)		
Level Four	Secondary Crushing/Screening		
Standard AFS Unit	Tons Raw Material		
Pollutant	PM10, total	**CAS**	
Primary Control	WET SUPPRESSION		
Secondary Control			
Emission Factor	8.400E-4	Lb Tons Raw Material Processed	
Standard AFS Unit?	Yes	**QUALITY** C	
References	EPA. 1995. Section 11.19.2, Construction Aggregate Processing: Crushed Stone Processing. In: Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition, AP-42. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina.		
Notes	This entry has 2 SCC's: 30502002 and 30502003		
Multiple Factor Info			

FIRE Database- Version 6.22

SCC	30502001		
Level One	Industrial Processes		
Level Two	Mineral Products		
Level Three	Stone Quarrying - Processing (See also 305320)		
Level Four	Primary Crushing		
Standard AFS Unit	Tons Raw Material		
Pollutant	PM, total	**CAS**	
Primary Control	UNCONTROLLED		
Secondary Control			
Emission Factor	7.000E-4	Lb Tons Raw Material Processed	
Standard AFS Unit?	Yes	**QUALITY** E	
References	EPA. 1995. Section 11.19.2, Construction Aggregate Processing: Crushed Stone Processing. In: Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition, AP-42. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina.		
Notes			
Multiple Factor Info			

SCC	30502002		
Level One	Industrial Processes		
Level Two	Mineral Products		
Level Three	Stone Quarrying - Processing (See also 305320)		
Level Four	Secondary Crushing/Screening		
Standard AFS Unit	Tons Raw Material		
Pollutant	PM10, total	**CAS**	
Primary Control	WET SUPPRESSION		
Secondary Control			
Emission Factor	8.400E-4	Lb Tons Raw Material Processed	
Standard AFS Unit?	Yes	**QUALITY** C	
References	EPA. 1995. Section 11.19.2, Construction Aggregate Processing: Crushed Stone Processing. In: Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition, AP-42. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina.		
Notes	This entry has 2 SCC's: 30502002 and 30502003		
Multiple Factor Info			

11.19 Construction Aggregate Processing[1-2]

The construction aggregate industry covers a range of subclassifications of the nonmetallic minerals industry (see Section 11.24, Metallic Minerals Processing, for information on that similar activity). Many operations and processes are common to both groups, including mineral extraction from the earth, loading, unloading, conveying, crushing, screening, and loadout. Other operations are restricted to specific subcategories. These include wet and dry fine milling or grinding, air classification, drying, calcining, mixing, and bagging. The latter group of operations is not generally associated with the construction aggregate industry but can be conducted on the same raw materials used to produce aggregate. Two examples are processing of limestone and sandstone. Both substances can be used as construction materials and may be processed further for other uses at the same location. Limestone is a common source of construction aggregate, but it can be further milled and classified to produce agricultural limestone. Sandstone can be processed into construction sand and also can be wet and/or dry milled, dried, and air classified into industrial sand.

The construction aggregate industry can be categorized by source, mineral type or form, wet versus dry, washed or unwashed, and end uses, to name but a few. The industry is divided in this document into Section 11.19.1, Sand And Gravel Processing, and Section 11.19.2, Crushed Stone Processing. Sections on other categories of the industry will be published when data on these processes become available.

Uncontrolled construction aggregate processing can produce nuisance problems and can have an effect upon attainment of ambient particulate standards. However, the generally large particles produced often can be controlled readily. Some of the individual operations such as wet crushing and grinding, washing, screening, and dredging take place with "high" moisture (more than about 1.5 to 4.0 weight percent). Such wet processes do not generate appreciable particulate emissions.

References For Section 11.19

1. *Air Pollution Control Techniques For Nonmetallic Minerals Industry*, EPA-450/3-82-014, U. S. Environmental Protection Agency, Research Triangle Park, NC, August 1982.

2. *Review Emissions Data Base And Develop Emission Factors For The Construction Aggregate Industry*, Engineering-Science, Inc., Arcadia, CA, September 1984.

11.19.1 Sand And Gravel Processing

11.19.1.1 Process Description[1-6]

Deposits of sand and gravel, the unconsolidated granular materials resulting from the natural disintegration of rock or stone, are generally found in near-surface alluvial deposits and in subterranean and subaqueous beds. Sand and gravel are siliceous and calcareous products of the weathering of rocks and unconsolidated or poorly consolidated materials. Such deposits are common throughout the country. The six-digit Source Classification Code (SCC) for construction sand and gravel processing is 3-05-025, and the six-digit SCC for industrial sand and gravel is 3-05-027.

Construction Sand And Gravel -

Sand and gravel typically are mined in a moist or wet condition by open pit excavation or by dredging. Open pit excavation is carried out with power shovels, draglines, front end loaders, and bucket wheel excavators. In rare situations, light charge blasting is done to loosen the deposit. Mining by dredging involves mounting the equipment on boats or barges and removing the sand and gravel from the bottom of the body of water by suction or bucket-type dredges. After mining, the materials are transported to the processing plant by suction pump, earth mover, barge, truck, belt conveyors, or other means.

Although significant amounts of sand and gravel are used for fill, bedding, subbase, and basecourse without processing, most domestic sand and gravel are processed prior to use. The processing of sand and gravel for a specific market involves the use of different combinations of washers, screens, and classifiers to segregate particle sizes; crushers to reduce oversized material; and storage and loading facilities. A process flow diagram for construction sand and gravel processing is presented in Figure 11.19.1-1. The following paragraphs describe the process in more detail.

After being transported to the processing plant, the wet sand and gravel raw feed is stockpiled or emptied directly into a hopper, which typically is covered with a "grizzly" of parallel bars to screen out large cobbles and boulders. From the hopper, the material is transported to fixed or vibrating scalping screens by gravity, belt conveyors, hydraulic pump, or bucket elevators. The scalping screens separate the oversize material from the smaller, marketable sizes. Oversize material may be used for erosion control, reclamation, or other uses, or it may be directed to a crusher for size reduction, to produce crushed aggregate, or to produce manufactured sands. Crushing generally is carried out in one or two stages, although three-stage crushing may also be performed. Following crushing, the material is returned to the screening operation for sizing.

The material that passes through the scalping screen is fed into a battery of sizing screens, which generally consists of either horizontal or sloped, and either single or multideck, vibrating screens. Rotating trommel screens with water sprays are also used to process and wash wet sand and gravel. Screening separates the sand and gravel into different size ranges. Water is sprayed onto the material throughout the screening process. After screening, the sized gravel is transported to stockpiles storage bins, or, in some cases, to crushers by belt conveyors, bucket elevators, or screw conveyors.

The sand is freed from clay and organic impurities by log washers or rotary scrubbers. After scrubbing, the sand typically is sized by water classification. Wet and dry screening is rarely used to size the sand. After classification, the sand is dewatered using screws, separatory cones, or

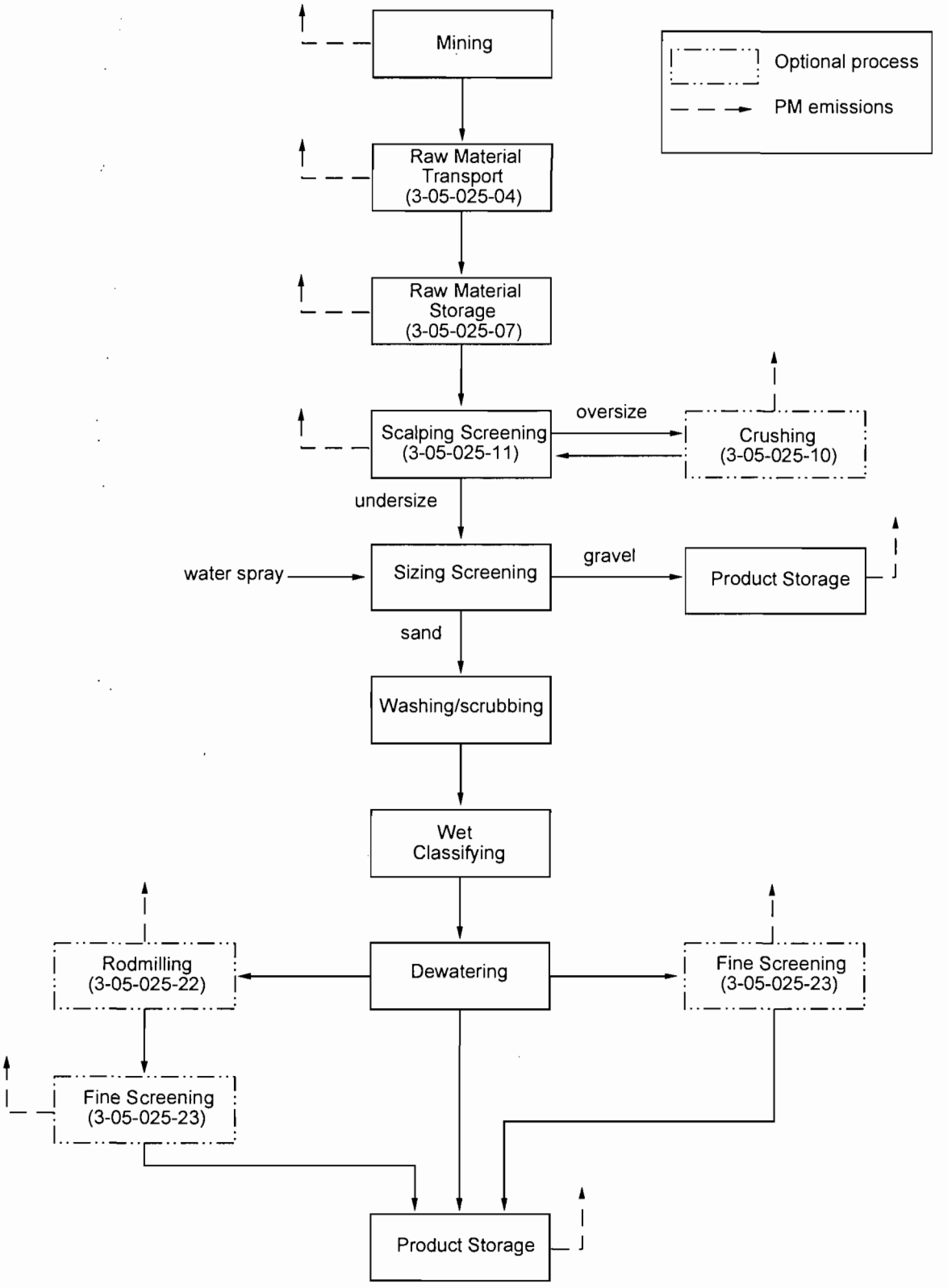


Figure 11.19.1-1. Process flow diagram for construction sand and gravel processing. (Source Classification Codes in parentheses.)

hydroseparators. Material may also be rodmilled to produce smaller sized fractions, although this practice is not common in the industry. After processing, the sand is transported to storage bins or stockpiles by belt conveyors, bucket elevators, or screw conveyors.

Industrial Sand And Gravel -

Industrial sand and gravel typically are mined from open pits of naturally occurring quartz-rich sand and sandstone. Mining methods depend primarily on the degree of cementation of the rock. In some deposits, blasting is required to loosen the material prior to processing. The material may undergo primary crushing at the mine site before being transported to the processing plant. Figure 11.19.1-2 is a flow diagram for industrial sand and gravel processing.

The mined rock is transported to the processing site and stockpiled. The material then is crushed. Depending on the degree of cementation, several stages of crushing may be required to achieve the desired size reduction. Gyratory crushers, jaw crushers, roll crushers, and impact mills are used for primary and secondary crushing. After crushing, the size of the material is further reduced to 50 micrometers (μm) or smaller by grinding, using smooth rolls, media mills, autogenous mills, hammer mills, or jet mills. The ground material then is classified by wet screening, dry screening, or air classification. At some plants, after initial crushing and screening, a portion of the sand may be diverted to construction sand use.

After initial crushing and screening, industrial sand and gravel are washed to remove unwanted dust and debris and are then screened and classified again. The sand (now containing 25 to 30 percent moisture) or gravel then goes to an attrition scrubbing system that removes surface stains from the material by rubbing in an agitated, high-density pulp. The scrubbed sand or gravel is diluted with water to 25 to 30 percent solids and is pumped to a set of cyclones for further desliming. If the deslimed sand or gravel contains mica, feldspar, and iron bearing minerals, it enters a froth flotation process to which sodium silicate and sulfuric acid are added. The mixture then enters a series of spiral classifiers where the impurities are floated in a froth and diverted to waste. The purified sand, which has a moisture content of 15 to 25 percent, is conveyed to drainage bins where the moisture content is reduced to about 6 percent. The material is then dried in rotary or fluidized bed dryers to a moisture content of less tha 0.5 percent. The dryers generally are fired with natural gas or oil, although other fuels such as propane or diesel also may be used. After drying, the material is cooled and then undergoes final screening and classification prior to being stored and packaged for shipment.

11.19.1.2 Emissions And Controls[6-14]

Emissions from the production of sand and gravel consist primarily of particulate matter (PM) and particulate matter less than 10 micrometers (PM-10) in aerodynamic diameter, which are emitted by many operations at sand and gravel processing plants, such as conveying, screening, crushing, and storing operations. Generally, these materials are wet or moist when handled, and process emissions are often negligible. A substantial portion of these emissions may consist of heavy particles that settle out within the plant. Other potentially significant sources of PM and PM-10 emissions are haul roads. Emissions from dryers include PM and PM-10, as well as typical combustion products including CO, CO_2, and NO_x. In addition, dryers may be sources of volatile organic compounds (VOC) or sulfur oxides (SO_x) emissions, depending on the type of fuel used to fire the dryer.

With the exception of drying, emissions from sand and gravel operations primarily are in the form of fugitive dust, and control techniques applicable to fugitive dust sources are appropriate. Some successful control techniques used for haul roads are dust suppressant application, paving, route

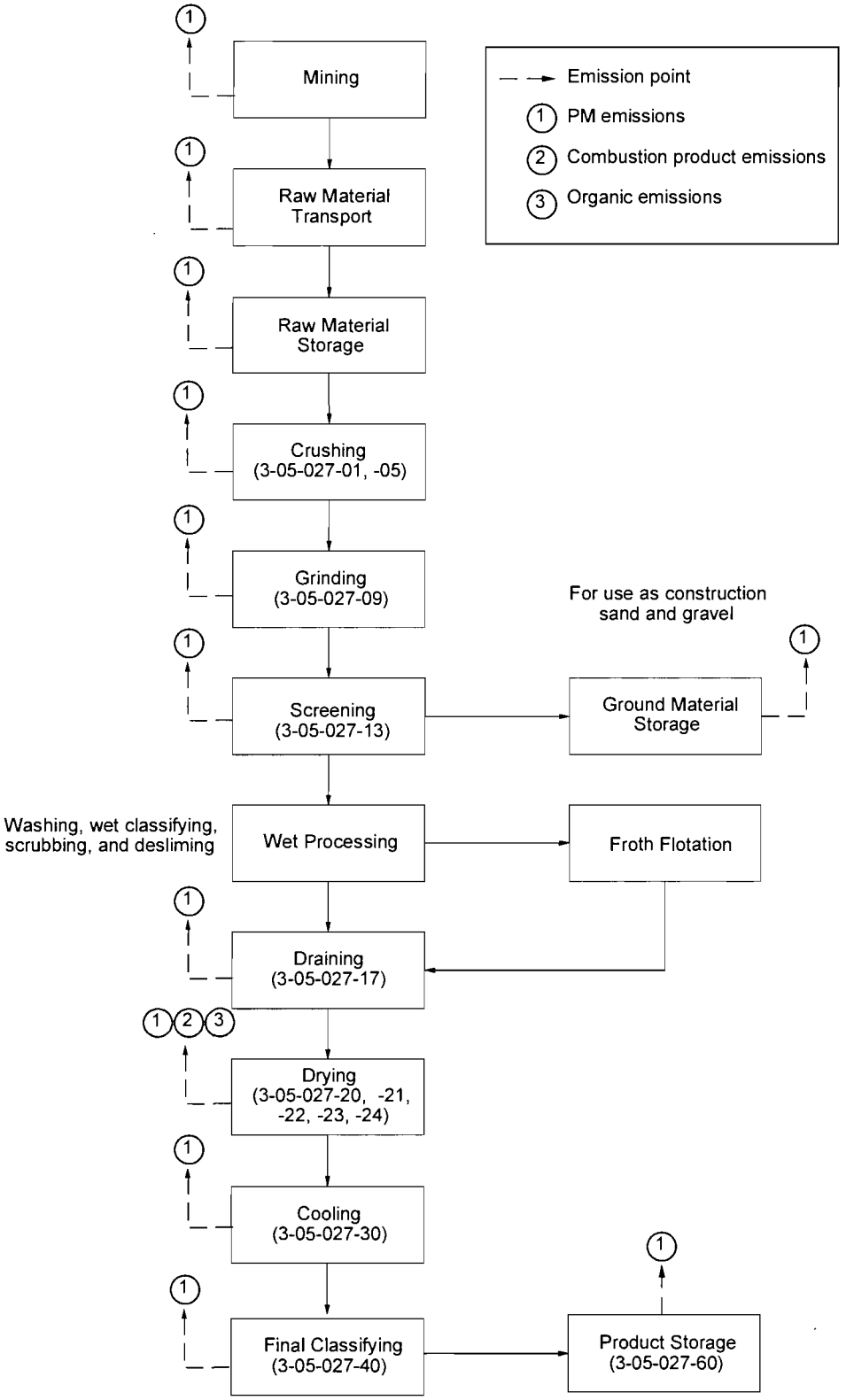


Figure 11.19.1-2. Process flow diagram for industrial sand and gravel processing. (Source Classification Codes in parentheses.)

modifications, and soil stabilization; for conveyors, covering and wet suppression; for storage piles, wet suppression, windbreaks, enclosure, and soil stabilizers; for conveyor and batch transfer points, wet suppression and various methods to reduce freefall distances (e. g., telescopic chutes, stone ladders, and hinged boom stacker conveyors); and for screening and other size classification, covering and wet suppression.

Wet suppression techniques include application of water, chemicals and/or foam, usually at crusher or conveyor feed and/or discharge points. Such spray systems at transfer points and on material handling operations have been estimated to reduce emissions 70 to 95 percent. Spray systems can also reduce loading and wind erosion emissions from storage piles of various materials 80 to 90 percent. Control efficiencies depend upon local climatic conditions, source properties and duration of control effectiveness. Wet suppression has a carryover effect downstream of the point of application of water or other wetting agents, as long as the surface moisture content is high enough to cause the fines to adhere to the larger rock particles.

In addition to fugitive dust control techniques, some facilities use add-on control devices to reduce emissions of PM and PM-10 from sand and gravel processing operations. Controls in use include cyclones, wet scrubbers, venturi scrubbers, and fabric filters. These types of controls are rarel used at construction sand and gravel plants, but are more common at industrial sand and gravel processing facilities.

Emission factors for criteria pollutant emissions from industrial sand and gravel processing are presented in Table 11.19.1-1 (metric and English units), and emission factors for organic pollutant emissions from industrial sand and gravel processing are presented in Table 11.19.1-2 (metric and English units). Although no emission factors are presented for construction sand and gravel processing, emission factors for the crushing, screening, and handling and transfer operations associated with stone crushing can be found in Section 11.19.2, "Crushed Stone Processing." In the absence of other data, the emission factors presented in Section 11.19.2 can be used to estimate emissions from corresponding sand and gravel processing sources. The background report for this AP-42 section also presents factors for the combined emissions of total suspended particulate from construction gravel storage pile wind erosion, material handling, and vehicle traffic. However, because the applicability of those emission factors to other storage piles is questionable, they are not presented here. To estimate emissions from fugitive sources, refer to AP-42 Chapter 13, "Miscellaneous Sources". The emission factors for industrial sand storage and screening presented in Table 11.19.1-1 are not recommended as surrogates for construction sand and gravel processing, because they are based on emissions from dried sand and may result in overestimates of emissions from those sources. Construction sand and gravel are processed at much higher moisture contents.

Table 11.19.1-1 (Metric And English Units).
EMISSION FACTORS FOR INDUSTRIAL SAND AND GRAVEL PROCESSING[a]

EMISSION FACTOR RATING: D

Source	Total PM		NO_x		CO_2	
	kg/Mg	lb/ton	kg/Mg	lb/ton	kg/Mg	lb/ton
Sand dryer (SCC 3-05-027-20)	0.98[b,c]	2.0[b,c]	0.016[d]	0.031[d]	14[e]	27[e]
Sand dryer with wet scrubber (SCC 3-05-027-20)	0.019[b,f]	0.039[b,f]	[g]	[g]	[g]	[g]
Sand dryer with fabric filter (SCC 3-05-027-20)	0.0053[b,h]	0.010[b,h]	[g]	[g]	[g]	[g]
Sand handling, transfer, and storage with wet scrubber (SCC 3-05-027-60)	0.00064[j]	0.0013[j]	ND	ND	ND	ND
Sand screening with venturi scrubber (SCC 3-05-027-13)	0.0042[k]	0.0083[k]	ND	ND	ND	ND

[a] Factors represent uncontrolled emissions unless noted. Dryer emission factors in units of kg/Mg and lb/ton of dried material produced; other factors in units of kg/Mg and lb/ton of material stored or screened. SCC = Source Classification Code.

[b] Factors are for filterable PM only. Filterable PM is that PM collected on or prior to the filter of an EPA Method 5 (or equivalent) sampling train. Condensible organic and inorganic PM emission factors are not available. Factors presented can be considered a conservative underestimate of total PM.

[c] Reference 12. EMISSION FACTOR RATING: E.

[d] Reference 10.

[e] References 10,13.

[f] References 5,13. EMISSION FACTOR RATING: C.

[g] Control device has no effect on emissions. See factor for uncontrolled emissions.

[h] References 7,11.

[j] Reference 9. For dried sand.

[k] Reference 14. Screening of dried sand.

Table 11.19.1-2 (Metric And English Units).
EMISSION FACTORS FOR INDUSTRIAL SAND AND GRAVEL PROCESSING--
ORGANIC POLLUTANTS[a]

EMISSION FACTOR RATING: D

Source	Pollutant		Emission factor	
	CASRN[b]	Name	kg/Mg	lb/ton
Diesel-fired rotary sand dryer with fabric filter (SCC 3-05-027-22)	50-00-0	Formaldehyde	0.0021	0.0043
	206-44-0	Fluoranthene	3.0×10^{-6}	6.0×10^{-6}
	91-20-3	Naphthalene	2.9×10^{-5}	5.9×10^{-5}
	85-01-8	Phenanthrene	7.5×10^{-6}	1.5×10^{-5}

[a] Reference 8. Factors represent uncontrolled emissions unless noted. Dryer emission factors in units of kg/Mg and lb/ton of material dried. SCC = Source Classification Code.
[b] Chemical Abstract Service Registry Number.

References For Section 11.19.1

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11.19.2 Crushed Stone Processing

11.19.2.1 Process Description[1-2]

Major rock types processed by the rock and crushed stone industry include limestone, granite, dolomite, traprock, sandstone, quartz, and quartzite. Minor types include calcareous marl, marble, shell, and slate. Industry classifications vary considerably and, in many cases, do not reflect actual geological definitions.

Rock and crushed stone products generally are loosened by drilling and blasting, then are loaded by power shovel or front-end loader into large haul trucks that transport the material to the processing operations. Techniques used for extraction vary with the nature and location of the deposit. Processing operations may include crushing, screening, size classification, material handling, and storage operations. All of these processes can be significant sources of PM and PM-10 emissions if uncontrolled.

Quarried stone normally is delivered to the processing plant by truck and is dumped into a hoppered feeder, usually a vibrating grizzly type, or onto screens, as illustrated in Figure 11.19.2-1. The feeder or screens separate large boulders from finer rocks that do not require primary crushing, thus reducing the load to the primary crusher. Jaw, impactor, or gyratory crushers are usually used for initial reduction. The crusher product, normally 7.5 to 30 centimeters (3 to 12 inches) in diameter, and the grizzly throughs (undersize material) are discharged onto a belt conveyor and usually are conveyed to a surge pile for temporary storage, or are sold as coarse aggregates.

The stone from the surge pile is conveyed to a vibrating inclined screen called the scalping screen. This unit separates oversized rock from the smaller stone. The undersize material from the scalping screen is considered to be a product stream and is transported to a storage pile and sold as base material. The stone that is too large to pass through the top deck of the scalping screen is processed in the secondary crusher. Cone crushers are commonly used for secondary crushing (although impact crushers are sometimes used), which typically reduces material to about 2.5 to 10 centimeters (1 to 4 inches). The material (throughs) from the second level of the screen bypasses the secondary crusher because it is sufficiently small for the last crushing step. The output from the secondary crusher and the throughs from the secondary screen are transported by conveyor to the tertiary circuit, which includes a sizing screen and a tertiary crusher.

Tertiary crushing is usually performed using cone crushers or other types of impactor crushers. Oversize material from the top deck of the sizing screen is fed to the tertiary crusher. The tertiary crusher output, which is typically about 0.50 to 2.5 centimeters (3/16th to 1 inch), is returned to the sizing screen. Various product streams with different size gradations are separated in the screening operation. The products are conveyed or trucked directly to finished product bins, open area stockpiles, or to other processing systems such as washing, air separators, and screens and classifiers (for the production of manufactured sand).

Some stone crushing plants produce manufactured sand. This is a small-sized rock product with a maximum size of 0.50 centimeters (3/16th inch). Crushed stone from the tertiary sizing screen is sized in a vibrating inclined screen (fines screen) with relatively small mesh sizes. Oversized material is processed in a cone crusher or a hammermill (fines crusher) adjusted to produce small diameter material. The output is then returned to the fines screen for resizing.

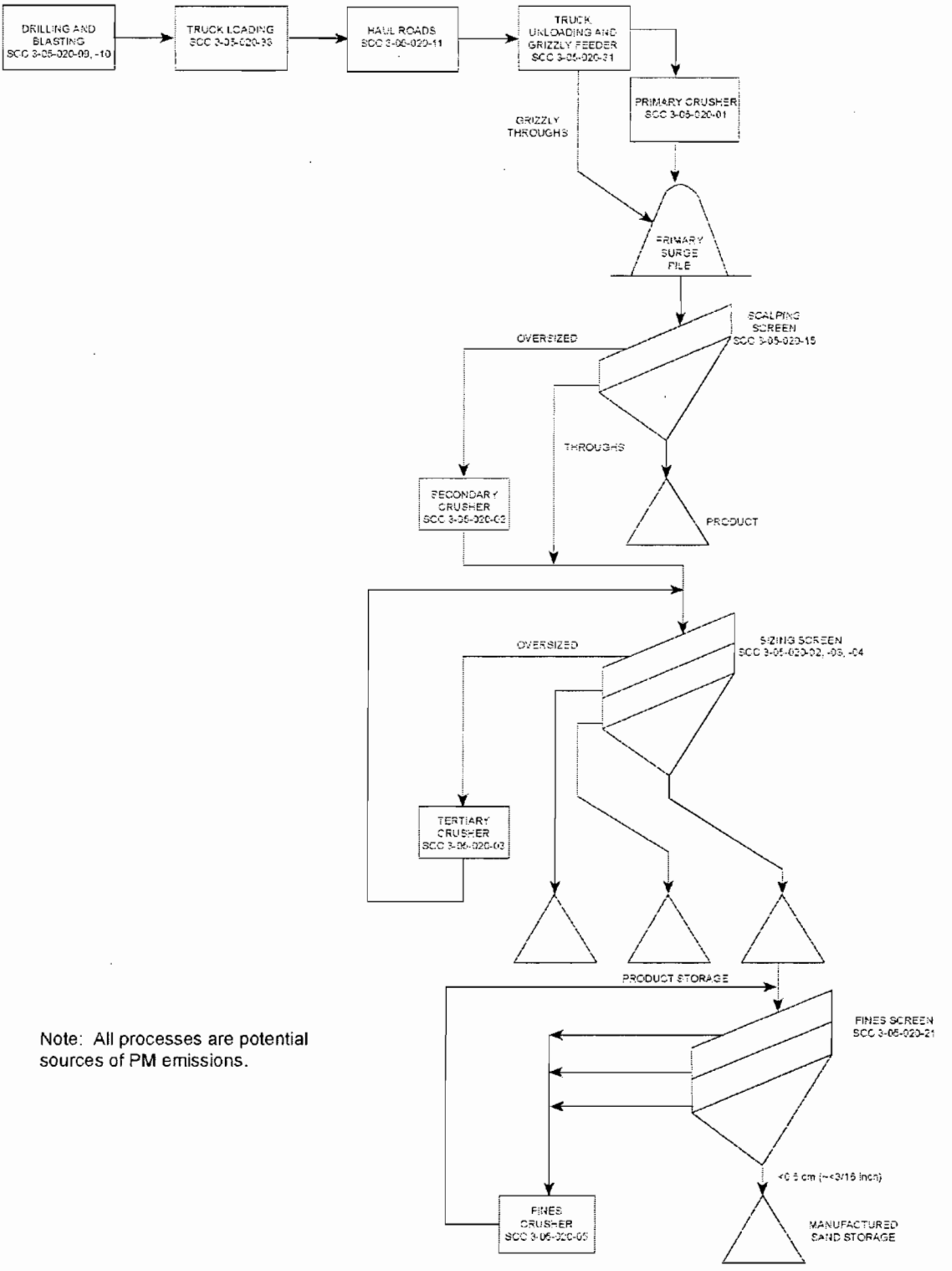


Figure 11.19.2-1. Typical stone processing plant.[2]
(SCC = Source Classification Code.)

In certain cases, stone washing is required to meet particular end product specifications or demands as with concrete aggregate processing. Crushed and broken stone normally is not milled but is screened and shipped to the consumer after secondary or tertiary crushing.

11.19.2.2 Emissions And Controls[1-8]

Emissions of PM and PM-10 occur from a number of operations in stone quarrying and processing. A substantial portion of these emissions consists of heavy particles that may settle out within the plant. As in other operations, crushed stone emission sources may be categorized as either process sources or fugitive dust sources. Process sources include those for which emissions are amenable to capture and subsequent control. Fugitive dust sources generally involve the reentrainment of settled dust by wind or machine movement. Emissions from process sources should be considered fugitive unless the sources are vented to a baghouse or are contained in an enclosure with a forced-air vent or stack. Factors affecting emissions from either source category include the stone size distribution and surface moisture content of the stone processed; the process throughput rate; the type of equipment and operating practices used; and topographical and climatic factors.

Of geographic and seasonal factors, the primary variables affecting uncontrolled PM emissions are wind and material moisture content. Wind parameters vary with geographical location, season, and weather. It can be expected that the level of emissions from unenclosed sources (principally fugitive dust sources) will be greater during periods of high winds. The material moisture content also varies with geographic location, season, and weather. Therefore, the levels of uncontrolled emissions from both process emission sources and fugitive dust sources generally will be greater in arid regions of the country than in temperate ones, and greater during the summer months because of a higher evaporation rate.

The moisture content of the material processed can have a substantial effect on emissions. This effect is evident throughout the processing operations. Surface wetness causes fine particles to agglomerate on, or to adhere to, the faces of larger stones, with a resulting dust suppression effect. However, as new fine particles are created by crushing and attrition, and as the moisture content is reduced by evaporation, this suppressive effect diminishes and may disappear. Plants that use wet suppression systems (spray nozzles) to maintain relatively high material moisture contents can effectively control PM emissions throughout the process. Depending on the geographic and climatic conditions, the moisture content of mined rock may range from nearly zero to several percent. Because moisture content is usually expressed on a basis of overall weight percent, the actual moisture amount per unit area will vary with the size of the rock being handled. On a constant mass-fraction basis, the per-unit area moisture content varies inversely with the diameter of the rock. Therefore, the suppressive effect of the moisture depends on both the absolute mass water content and the size of the rock product. Typically, wet material contains 1.5 to 4 percent water or more.

A variety of material, equipment, and operating factors can influence emissions from crushing. These factors include (1) stone type, (2) feed size and distribution, (3) moisture content, (4) throughput rate, (5) crusher type, (6) size reduction ratio, and (7) fines content. Insufficient data are available to present a matrix of rock crushing emission factors detailing the above classifications and variables. Available data indicate that PM-10 emissions from limestone and granite processing operations are similar. Therefore, the emission factors developed from the emission data gathered at limestone and granite processing facilities are considered to be representative of typical crushed stone processing operations. Emission factors for filterable PM and PM-10 emissions from crushed stone processing operations are presented in Tables 11.19-1 (metric units) and 11.19-2 (English units).

Table 11.19.2-1 (Metric Units). EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS[a]

Source[b]	Total Particulate Matter	EMISSION FACTOR RATING	Total PM-10[c]	EMISSION FACTOR RATING
Screening (SCC 3-05-020-02,-03)	—[d]		0.0076[e]	C
Screening (controlled) (SCC 3-05-020-02-03)	—[d]		0.00042[e]	C
Primary crushing (SCC 3-05-020-01)	0.00035[f]	E	ND[g]	
Secondary crushing (SCC 3-05-020-02)	ND		ND[g]	
Tertiary crushing (SCC 3-05-020-03)	—[d]		0.0012[h]	C
Primary crushing (controlled) (SCC 3-05-020-01)	ND		ND[g]	
Secondary crushing (controlled) (SCC 3-05-020-02)	ND		ND[g]	
Tertiary crushing (controlled) (SCC 3-05-020-03)	—[d]		0.00029[h]	C
Fines crushing[j] (SCC 3-05-020-05)	—[d]		0.0075	E
Fines crushing (controlled)[j] (SCC 3-05-020-05)	—[d]		0.0010	E
Fines screening[j] (SCC 3-05-020-21)	—[d]		0.036	E
Fines screening (controlled)[j] (SCC 3-05-020-21)	—[d]		0.0011	E
Conveyor transfer point[k] (SCC 3-05-020-06)	—[d]		0.00072	D
Conveyor transfer point (controlled)[k] (SCC 3-05-020-06)	—[d]		2.4×10^{-5}	D
Wet drilling: unfragmented stone[m] (SCC 3-05-020-10)	ND		4.0×10^{-5}	E
Truck unloading: fragmented stone[m] (SCC 3-05-020-31)	ND		8.0×10^{-6}	E
Truck loading--conveyor: crushed stone[n] (SCC 3-05-020-32)	ND		5.0×10^{-5}	E

[a] Emission factors represent uncontrolled emissions unless noted. Emission factors in kg/Mg of material throughput. SCC = Source Classification Code. ND = no data.

[b] Controlled sources (with wet suppression) are those that are part of the processing plant that employs current wet suppression technology similar to the study group. The moisture content of the study group without wet suppression systems operating (uncontrolled) ranged from 0.21 to 1.3 percent and the same facilities operating wet suppression sytems (controlled) ranged from 0.55 to 2.88 percent. Due to carry over or the small amount of moisture required, it has been shown that each source, with the exception of crushers, does not need to employ direct water sprays. Although the moisture content was the only variable measured, other process features may have as much influence on emissions from a given source. Visual observations from each source under normal operating conditions are probably the best indicator of which emission factor is most appropriate. Plants that employ sub-standard control measures as indicated by visual observations should use the uncontrolled factor with an appropriate control efficiency that best reflects the effectiveness of the controls employed.

[c] Although total suspended particulate (TSP) is not a measurable property from a process, some states may require estimates of TSP emissions. No data are available to make these estimates. However, relative ratios in AP-42 Sections 13.2.2 and 13.2.4 indicate that TSP emission factors may be estimated by multiplying PM-10 by 2.1.

Table 11.19.2-1 (cont.).

[d] Emission factors for total particulate are not presented pending a re-evaluation of the EPA Method 201a test data and/or results of emission testing. This re-evaluation is expected to be completed by July 1995.
[e] References 9, 11, 15-16.
[f] Reference 1.
[g] No data available, but emission factors for PM-10 emission factors for tertiary crushing can be used as an upper limit for primary or secondary crushing.
[h] References 10-11, 15-16.
[j] Reference 12.
[k] References 13-14.
[m] Reference 3.
[n] Reference 4.

Table 11.19.2-2 (English Units). EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS[a]

Source[b]	Total Particulate Matter	EMISSION FACTOR RATING	Total PM-10[c]	EMISSION FACTOR RATING
Screening (SCC 3-05-020-02,-03)	—[d]		0.015[e]	C
Screening (controlled) (SCC 3-05-020-02-03)	—[d]		0.00084[e]	C
Primary crushing (SCC 3-05-020-01)	0.00070[f]	E	ND[g]	
Secondary crushing (SCC 3-05-020-02)	ND		ND[g]	
Tertiary crushing (SCC 3-05-020-03)	—[d]		0.0024[h]	C
Primary crushing (controlled) (SCC 3-05-020-01)	ND		ND[g]	NA
Secondary crushing (controlled) (SCC 3-05-020-02)	ND		ND[g]	NA
Tertiary crushing (controlled) (SCC 3-05-020-03)	—[d]		0.00059[h]	C
Fines crushing[j] (SCC 3-05-020-05)	—[d]		0.015	E
Fines crushing (controlled)[j] (SCC 3-05-020-05)	—[d]		0.0020	E
Fines screening[j] (SCC 3-05-020-21)	—[d]		0.071	E
Fines screening (controlled)[j] (SCC 3-05-020-21)	—[d]		0.0021	E
Conveyor transfer point[k] (SCC 3-05-020-06)	—[d]		0.0014	D
Conveyor transfer point (controlled)[k] (SCC 3-05-020-06)	—[d]		4.8×10^{-5}	D
Wet drilling: unfragmented stone[m] (SCC 3-05-020-10)	ND		8.0×10^{-5}	E
Truck unloading: fragmented stone[m] (SCC 3-05-020-31)	ND		1.6×10^{-5}	E
Truck loading--conveyor: crushed stone[n] (SCC 3-05-020-32)	ND		0.00010	E

[a] Emission factors represent uncontrolled emissions unless noted. Emission factors in lb/ton of material throughput. SCC = Source Classification Code. ND = no data.

[b] Controlled sources (with wet suppression) are those that are part of the processing plant that employs current wet suppression technology similar to the study group. The moisture content of the study group without wet suppression systems operating (uncontrolled) ranged from 0.21 to 1.3 percent and the same facilities operating wet suppression systems (controlled) ranged from 0.55 to 2.88 percent. Due to carry over or the small amount of moisture required, it has been shown that each source, with the exception of crushers, does not need to employ direct water sprays. Although the moisture content was the only variable measured, other process features may have as much influence on emissions from a given source. Visual observations from each source under normal operating conditions are probably the best indicator of which emission factor is most appropriate. Plants that employ sub-standard control measures as indicated by visual observations should use the uncontrolled factor with an appropriate control efficiency that best reflects the effectiveness of the controls employed.

[c] Although total suspended particulate (TSP) is not a measurable property from a process, some states may require estimates of TSP emissions. No data are available to make these estimates. However, relative ratios in AP-42 Sections 13.2.2 and 13.2.4 indicate that TSP emission factors may be estimated by multiplying PM-10 by 2.1.

Table 11.19.2-2 (cont.).

[d] Emission factors for total particulate are not presented pending a re-evaluation of the EPA Method 201a test data and/or results of emission testing. This re-evaluation is expected to be completed by July 1995.
[e] References 9, 11, 15-16.
[f] Reference 1.
[g] No data available, but emission factors for PM-10 emission factors for tertiary crushing can be used as an upper limit for primary or secondary crushing.
[h] References 10-11, 15-16.
[j] Reference 12.
[k] References 13-14.
[m] Reference 3.
[n] Reference 4.

Emission factor estimates for stone quarry blasting operations are not presented here because of the sparsity and unreliability of available test data. While a procedure for estimating blasting emissions is presented in Section 11.9, Western Surface Coal Mining, that procedure should not be applied to stone quarries because of dissimilarities in blasting techniques, material blasted, and size of blast areas. Milling of fines is not included in this section as this operation is normally associated with nonconstruction aggregate end uses and will be covered elsewhere when information is adequate. Emission factors for fugitive dust sources, including paved and unpaved roads, materials handling and transfer, and wind erosion of storage piles, can be determined using the predictive emission factor equations presented in AP-42 Section 13.2.

References For Section 11.19.2

1. *Air Pollution Control Techniques for Nonmetallic Minerals Industry*, EPA-450/3-82-014, U. S. Environmental Protection Agency, Research Triangle Park, NC, August 1982.

2. Written communication from J. Richards, Air Control Techniques, P.C., to B. Shrager, MRI. March 18, 1994.

3. P. K. Chalekode *et al.*, *Emissions from the Crushed Granite Industry: State of the Art*, EPA-600/2-78-021, U. S. Environmental Protection Agency, Washington, DC, February 1978.

4. T. R. Blackwood *et al.*, *Source Assessment: Crushed Stone*, EPA-600/2-78-004L, U. S. Environmental Protection Agency, Washington, DC, May 1978.

5. F. Record and W. T. Harnett, *Particulate Emission Factors for the Construction Aggregate Industry, Draft Report*, GCA-TR-CH-83-02, EPA Contract No. 68-02-3510, GCA Corporation, Chapel Hill, NC, February 1983.

6. *Review Emission Data Base and Develop Emission Factors for the Construction Aggregate Industry*, Engineering-Science, Inc., Arcadia, CA, September 1984.

7. C. Cowherd, Jr. *et al.*, *Development of Emission Factors for Fugitive Dust Sources*, EPA-450/3-74-037, U. S. Environmental Protection Agency, Research Triangle Park, NC, June 1974.

8. R. Bohn *et al.*, *Fugitive Emissions from Integrated Iron and Steel Plants*, EPA-600/2-78-050, U. S. Environmental Protection Agency, Washington, DC, March 1978.

9. J. Richards, T. Brozell, and W. Kirk, *PM-10 Emission Factors for a Stone Crushing Plant Deister Vibrating Screen*, EPA Contract No. 68-D1-0055, Task 2.84, U. S. Environmental Protection Agency, Research Triangle Park, NC, February 1992.

10. J. Richards, T. Brozell, and W. Kirk, *PM-10 Emission Factors for a Stone Crushing Plant Tertiary Crusher*, EPA Contract No. 68-D1-0055, Task 2.84, U. S. Environmental Protection Agency, Research Triangle Park, NC, February 1992.

11. W. Kirk, T. Brozell, and J. Richards, *PM-10 Emission Factors for a Stone Crushing Plant Deister Vibrating Screen and Crusher*, National Stone Association, Washington DC, December 1992.

12. T. Brozell, J. Richards, and W. Kirk, *PM-10 Emission Factors for a Stone Crushing Plant Tertiary Crusher and Vibrating Screen*, EPA Contract No. 68-D0-0122, U. S. Environmental Protection Agency, Research Triangle Park, NC, December 1992.

13. T. Brozell, *PM-10 Emission Factors for Two Transfer Points at a Granite Stone Crushing Plant*, EPA Contract No. 68-D0-0122, U. S. Environmental Protection Agency, Research Triangle Park, NC, January 1994.

14. T. Brozell, *PM-10 Emission Factors for a Stone Crushing Plant Transfer Point*, EPA Contract No. 68-D0-0122, U. S. Environmental Protection Agency, Research Triangle Park, NC, February 1993.

15. T. Brozell and J. Richards, *PM-10 Emission Factors for a Limestone Crushing Plant Vibrating Screen and Crusher for Bristol, Tennessee*, EPA Contract No. 68-D2-0163, U. S. Environmental Protection Agency, Research Triangle Park, NC, July 1993.

16. T. Brozell and J. Richards, *PM-10 Emission Factors for a Limestone Crushing Plant Vibrating Screen and Crusher for Marysville, Tennessee*, EPA Contract No. 68-D2-0163, U. S. Environmental Protection Agency, Research Triangle Park, NC, July 1993.

11.28 Vermiculite Processing

11.28.1 Process Description[1-9]

Vermiculite is the geological name given to a group of hydrated laminar minerals that are aluminum-iron-magnesium silicates and that resemble mica in appearance. The chemical formula for vermiculite is $(Mg,Ca,K,Fe^{+2})_3(Si,Al,Fe^{+3})_4O_{10}(OH)_2 \cdot 4H_2O$. When subjected to heat, vermiculite has the unusual property of exfoliating, or expanding, due to the interlaminar generation of steam. Uses of unexpanded vermiculite include muds for oil-well drilling and fillers in fire-resistant wallboard. The six-digit source classification code (SCC) for vermiculite processing is 3-05-033.

Vermiculite ore is mined using open-pit methods. Beneficiation includes screening, flotation, drying in rotary or fluid bed dryers, and expansion by exposure to high heat. All mined vermiculite is dried and sized at the mine site prior to exfoliation.

Crude Ore Processing -

Figure 11.28-1 is a process flow diagram for vermiculite processing. Crude ore from open-pit mines is brought to the mill by truck and is loaded onto outdoor stockpiles. Primary processing consists of screening the raw material to remove the waste rock greater than 1.6 centimeters (cm) (5/8 inch [in.]) and returning the raw ore to stockpiles. Blending is accomplished as material is removed from stockpiles and conveyed to the mill feed bin. The blended ore is fed to the mill, where it is separated into fractions by wet screening and then concentrated by gravity. All concentrates are collected, dewatered, and dried in either a fluidized bed or rotary dryer. Drying reduces the moisture content of the vermiculite concentrate from approximately 15 to 20 percent to approximately 2 to 6 percent. At least one facility uses a hammermill to crush the material exiting the dryer. However, at most facilities, the dryer products are transported by bucket elevators to vibrating screens, where the material is classified. The dryer exhaust generally is ducted to a cyclone for recovering the finer grades of vermiculite concentrate. The classified concentrate then is stored in bins or silos for later shipment or exfoliation.

The rotary dryer is the more common dryer type used in the industry, although fluidized bed dryers also are used. Drying temperatures are 120° to 480°C (250° to 900°F), and fuel oil is the most commonly used fuel. Natural gas and propane also are used to fuel dryers.

Exfoliation -

After being transported to the exfoliation plant, the vermiculite concentrate is stored. The ore concentrate then is conveyed by bucket elevator or other means and is dropped continuously through a gas- or oil-fired vertical furnace. Exfoliation occurs after a residence time of less than 8 seconds in th furnace, and immediate removal of the expanded material from the furnace prevents damage to the structure of the vermiculite particle. Flame temperatures of more than 540°C (1000°F) are used for exfoliation. Proper exfoliation requires both a high rate of heat transfer and a rapid generation of steam within the vermiculite particles. The expanded product falls through the furnace and is air conveyed to a classifier system, which collects the vermiculite product and removes excessive fines. The furnace exhaust generally is ducted through a product recovery cyclone, followed by an emission control device. At some facilities, the exfoliated material is ground in a pulverizer prior to being classified. Finally, the material is packaged and stored for shipment.

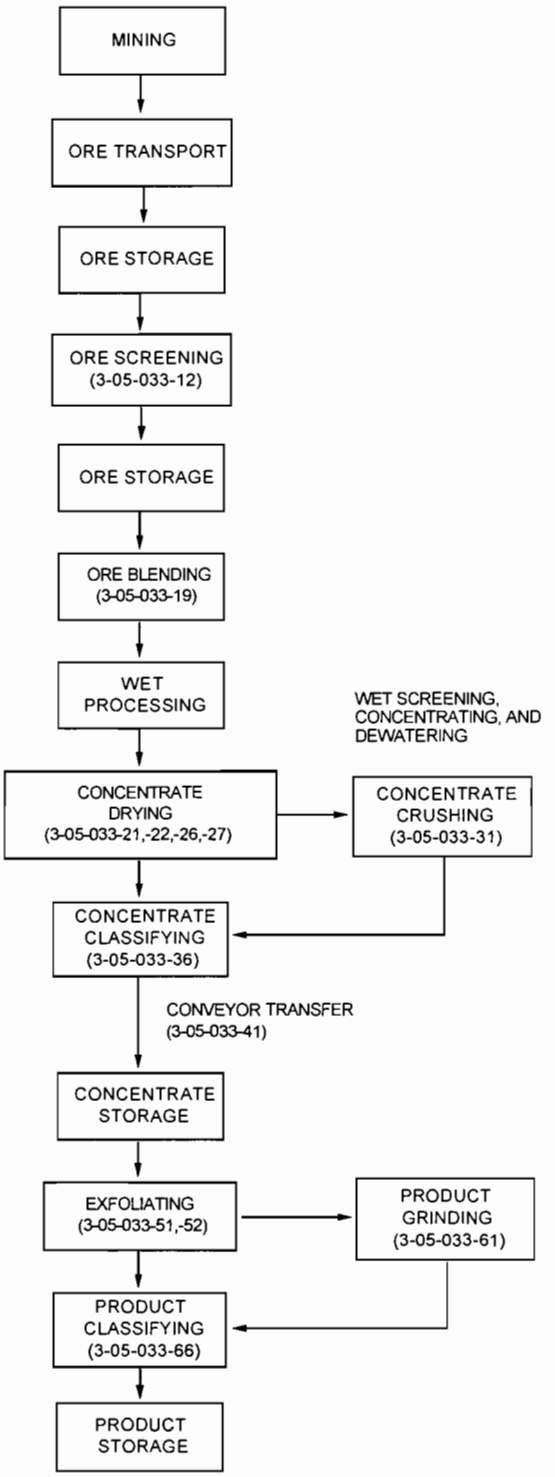


Figure 11.28-1. Process flow diagram for vermiculite processing.
(Source Classification Codes in parentheses.)

11.28.2 Emissions And Controls[1,4-11]

The primary pollutants of concern in vermiculite processing are particulate matter (PM) and PM less than 10 micrometers (PM-10). Particulate matter is emitted from screening, drying, exfoliating, and materials handling and transfer operations. Emissions from dryers and exfoliating furnaces, in addition to filterable and condensible PM and PM-10, include products of combustion, such as carbon monoxide (CO), carbon dioxide (CO_2), nitrogen oxides (NO_x), and sulfur oxides (SO_x).

Wet scrubbers are typically used to control dryer emissions. The majority of expansion furnaces are ducted to fabric filters for emission control. However, wet scrubbers also are used to control the furnace emissions. Cyclones and fabric filters also are used to control emissions from screening, milling, and materials handling and transfer operations.

Table 11.28-1 summarizes the emission factors for vermiculite processing.

Table 11.28-1 EMISSION FACTORS FOR VERMICULITE PROCESSING[a]

EMISSION FACTOR RATING: D

Process	Filterable PM[b] kg/Mg	Condensible organic PM[c] kg/Mg	Total PM[d] kg/Mg	CO_2 kg/Mg
Rotary dryer, with wet collector (SCC 3-05-033-21,-22)	0.29[e]	ND	ND	50[f]
Concentrate screening, with cyclone (SCC 3-05-033-36)	0.30[g]	NA	0.30[g]	NA
Concentrate conveyor transfer, with cyclone (SCC 3-05-033-41)	0.013[g]	NA	0.013[g]	NA
Exfoliation - gas-fired vertical furnace, with fabric filter (SCC 3-05-033-51)	0.32[h]	0.18[j]	0.50[k]	ND
Product grinding, with fabric filter (SCC 3-05-033-61)	0.18[m]	NA	0.18[m]	NA

[a] Factors represent uncontrolled emissions unless noted. Emission factor units for drying are kg/Mg of material feed; emission factor units for other processes are kg/Mg of product. 1 kg/Mg is equivalent to 1 lb/1,000 lb. SCC = Source Classification Code. ND = no data. NA = not applicable.

[b] Filterable PM is that PM collected on or prior to the filter of an EPA Method 5 (or equivalent) sampling train.

[c] Condensible PM is that PM collected in the impinger portion of a PM sampling train. Condensible organic PM is the organic fraction of the condensible PM.

[d] Total PM equals the sum of the filterable PM, condensible organic PM, and condensible inorganic PM.

[e] Reference 8. EMISSION FACTOR RATING: E.

[f] References 8,11. Factor represents uncontrolled emissions of CO_2.

[g] Reference 11. For dried ore concentrate.

[h] Reference 10.

[j] Reference 10. Emissions may be largely from volatilization of oil used in ore beneficiation.

[k] Sum of factors for filterable PM and condensible organic PM; does not include condensible inorganic PM.

[m] Reference 9.

References For Section 11.28

1. *Calciners And Dryers In Mineral Industries - Background Information For Proposed Standards*, EPA-450/3-025a, U. S. Environmental Protection Agency, Research Triangle Park, NC, October 1985.

2. P. R. Strand and O. F. Stewart. "Vermiculite", *Industrial Rocks And Minerals, Volume I*, Society Of Mining Engineers, New York, 1983.

3. *Vermiculite, Its Properties And Uses*, The Vermiculite Association, Incorporated, Chicago, IL.

4. Written communication from Jeffrey A. Danneker, W. R. Grace And Company, Cambridge, MA, to Ronald E. Myers, U. S. Environmental Protection Agency, Research Triangle Park, NC, August 26, 1994.

5. W. J. Neuffer, *Trip Report For The September 30, 1980, Visit To W. R. Grace And Company, Enoree, South Carolina, ESD Project No. 81/08*, U. S. Environmental Protection Agency, Research Triangle Park, NC, October 6, 1981.

6. *Site Visit: Virginia Vermiculite Limited, Trevilians, Virginia*, memorandum from A. J. Nelson, Midwest Research Institute, Cary, NC, to W. J. Neuffer, U. S. Environmental Protection Agency, Research Triangle Park, NC, June 8, 1983.

7. *Site Visit: W. R. Grace And Company, Irondale, Alabama*, memorandum from A. J. Nelson, Midwest Research Institute, Cary, NC, to W. J. Neuffer, U. S. Environmental Protection Agency, Research Triangle Park, NC, June 29, 1983.

8. *Rotary Dryer Particulate Emissions Testing, Performed For Virginia Vermiculite Limited, Boswell's Tavern, Virginia.* RTP Environmental Associates, Research Triangle Park, NC, November 1979.

9. *Particulate Emission Compliance Test On Grinder Baghouse On August 8, 1989 At W. R. Grace And Company Kearney Exfoliating Plant, Enoree, South Carolina 29335*, Environmental Engineering Division, PSI, Greenville, SC, August 24, 1989.

10. *Particulate Emissions Sampling, W. R. Grace And Company, Dallas, TX, April 2-4, 1990*, Turner Engineering, Dallas, TX, April 10, 1990.

11. *Particulate Emissions Test Report For W. R. Grace And Company, August 1991*, RTP Environmental Associates, Inc, Greer, SC, August 1991.

Mitchell, Bruce

From: Zhu, Yi
Sent: Thursday, March 08, 2001 1:58 PM
To: Mitchell, Bruce
Cc: Fancy, Clair; Sheplak, Scott; Leffler, William
Subject: RE: ARMS update for Better Roads, Inc.: 7775122-001-AC.

The data in this facility is checked. I also removed the unnecessary SCC in the other facility. Thanks. Yi

-----Original Message-----
From: Mitchell, Bruce
Sent: Wednesday, March 07, 2001 2:40 PM
To: Zhu, Yi
Cc: Fancy, Clair; Sheplak, Scott; Leffler, William
Subject: ARMS update for Better Roads, Inc.: 7775122-001-AC.

3/7/2001

Dear Yi,

Please check the ARMS data for the above referenced permitting project. In addition, please delete the SCC for EU 002 for Samsula: 7775112-001-AC (it is an exempt unit and there is no need for tracking all of the various pollutants prompted by the SCC entered). Many thanks.

Bruce

Mitchell, Bruce

To: Zhu, Yi
Cc: Fancy, Clair; Sheplak, Scott; Leffler, William
Subject: ARMS update for Better Roads, Inc.: 7775122-001-AC.

3/7/2001

Dear Yi,

Please check the ARMS data for the above referenced permitting project. In addition, please delete the SCC for EU 002 for Samsula: 7775112-001-AC (it is an exempt unit and there is no need for tracking all of the various pollutants prompted by the SCC entered). Many thanks.

Bruce

Leffler, William

From: Baker, Earl
Sent: Monday, February 19, 2001 11:47 AM
To: Leffler, William
Subject: Testing ,7775122

Arlington Environmental has scheduled tests at this facility on 12 March,01. Thanks ,Earl.

FACSIMILE COVER PAGE

Date: 11/21/00
Time: 10:14:24
Pages: 4

To: Bill Leffler
Company: Florida DEP
Fax #: 850-922-6979

Message:

Bill,

The following is proof of public notice for the Better Roads Rock Crusher.

Bill Arlington

A SUN COAST MEDIA GROUP, INC PUBLICATION

Printers and Publishers of
Charlotte Sun Herald
Englewood Sun Herald
North Port Sun Herald
DeSoto Sun Herald
Venice Gondolier

PUBLISHER'S AFFIDAVIT OF PUBLICATION

STATE OF FLORIDA,
COUNTY OF Charlotte
Before the undersigned personally appeared Peggy Mazzone who on oath says she is Legal Clerk of the {Charlotte Sun Herald, Englewood Sun Herald, DeSoto Sun Herald, North Port Sun Herald, Venice Gondolier} a newspaper printed at Charlotte Harbor in Charlotte County, Florida; that the attached Notice of intent published in said issues:

October 28, 2000

Affiant further says that the said newspaper has heretofore been continuously published in Charlotte County, Florida, Sarasota County, Florida, and DeSoto County, Florida, each day and has been entered as Second-Class mail matter at the Post Office in Punta Gorda, in said Charlotte County, Florida and at additional mailing offices, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

(Signature of Affiant)

Sworn to and subscribed before me this 30th day of October, 2000

(signature of notary public)

SUSAN J. DESMIDT
My Comm Exp. 6/26/04
No. CC 947769
Personally Known [ ] Other I.D.

PUBLIC NOTICE OF INTENT TO ISSUE AIR
CONSTRUCTION PERMIT
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Draft Permit No. 7775122.001-AC
Better Roads, Inc.

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Better Roads, Inc., for a diesel engine powered relocatable concrete, asphalt, and rock crushing facility. The permittee plans to operate the facility at construction and industrial sites throughout Florida. The facility is a minor source of air pollution. It is subject to the Standards of Performance for New Stationary Sources, 40 CFR 60, Subpart OOO, for nonmetallic mineral processing. It is not subject to the Prevention of Significant Deterioration (PSD) regulations, Rule 62-212.400, Florida Administrative Code (F.A.C). A Best Available Control Technology determination was not required for this facility. The applicant's name and address is: Better Roads, Inc., P.O. Box 9479, Naples, Florida 33941. The facility has been reviewed for potential operation in all counties of Florida. The facility will emit fugitive particulate matter from the crusher operation and the products of combustion from the diesel fired engine. Control of process uncontrolled fugitive particulate matter emissions shall be accomplished by wetting the material using water spray bars as needed at unloading, at the crusher entrance, and at conveyor transfer points; and, nonprocess uncontrolled fugitive particulate matter emissions shall be controlled using watering and/or application of some dust suppressants on the haul roads, work areas and stockpiles. Because of the low emissions estimates and limited time of operation at any one site, the crusher will not cause or contribute to any violation of an ambient air quality standard or increment.
The Department will issue the Final permit, in accordance with the conditions of the Draft permit, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.
The Department will accept written comments concerning the proposed Draft permit issuance for a period of 14 (fourteen) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the Draft permit, the Department shall issue a revised Draft permit and require, if applicable, another Public Notice.
The Department will issue the Final permit with the conditions of the Draft permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, Florida Statutes (F.S.). Mediation is not available for this action. The procedures for petitioning for a hearing are set forth below. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9730, fax: 850/487-4938. Petitioner must file within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. Failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207, F.A.C.
A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Numbers and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in the notice of intent.
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.
Copies of the proposed air construction permit and the technical evaluation are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Florida Dept. of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114

Florida Dept. of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803
Telephone: 407/894-7555

Orange County Environmental Protection
Department - Air Program Section
800 Mercy Drive
Orlando, Florida 32808
Telephone: 407/836-1400

Florida Dept. of Environmental Protection
Northwest District Office
160 Governmental Center
Pensacola, Florida 32501
Telephone: 850/595-8300

Florida Dept. of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 2006
Jacksonville, Florida 32256
Telephone: 904/448-4300

Florida Dept. of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Fl. 33619
Telephone: 813/744-6100

Florida Dept. of Environmental Protection
Southwest District Office
400 North Congress Avenue
West Palm Beach, Florida 33416
Telephone: 561/681-6755

Florida Dept. of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902
Telephone: 941/332-6975

Broward County Department of Natural Resource Protection
218 Southwest First Avenue
Fort Lauderdale, Florida 33301
Telephone: 954/519-1202

County Department of Environmental Resources Management
33 Southwest Second Avenue Suite 900
Miami, Florida 33130
Telephone: 305/3372-6925

Regulatory and Environmental Services Department
117 West Duval Street, Suite 225
Jacksonville, Florida 32202
Telephone: 904/630-3484

Hillsborough County Environmental Protection Commission
1410 North 21 Street
Tampa, Florida 33605
Telephone: 813/272-5520

Palm Beach County Health Department
901 Evernia Street
Post Office Box 29
West Palm Beach, Florida 33401
Telephone: 561/355-3070

Pinellas County Department of Environmental Management
300 South Garden Avenue
Clearwater, Florida 33756
Telephone: 727/464-4422

Sarasota County Natural Resources Department
1301 Cattlemen Road, Building A
Sarasota, Florida 34232
Telephone: 941/378-1128

The complete project file, which includes the application, technical evaluation, Draft air construction permit and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S., is available in the office of the permitting authority in Tallahassee. Interested persons may contact William Leffler, P.E., project engineer, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call (850) 921-9522, for additional information.

Publish: October 26, 2000

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

October 2, 2000

CERTIFIED MAIL - Return Receipt Requested

Mr. Joseph Boness, III, President
Better Roads, Inc.
P.O. Box 9979
Naples, Florida 33941

Re: Air Construction Permit No.: 7775122-001-AC
Relocatable Concrete, Asphalt, and Rock Crushing Facility

Dear Mr. Boness:

Enclosed is one copy of the Draft Air Construction Permit for a diesel engine powered relocatable concrete, asphalt, and rock crusher facility, which will be based at the Babcock Ranch, located 2.5 miles South of Tucker's Corner off SR 31, in Charlotte County, Florida. The air construction permit will allow the permittee to advertise in counties for the purpose of construction/installation, performance testing, and to support an application for an air operating permit or subsequent air operating permit amendments when relocating notification is received. The Technical Evaluation and Preliminary Determination, the Department's Intent to Issue Air Construction Permit, and the "Public Notice of Intent to Issue Air Construction Permit" are also included.

The "**Public Notice of Intent to Issue Air Construction Permit**" must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area in which you propose to set up or operate this facility. The publication must meet the requirements of Chapter 50, F.S. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven (7) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit. Please do not confuse the "Public Notice" part with the "Intent to Issue" part of this section.

Please note the addition of a specific condition prohibiting the crushing of asbestos containing material. Crushing, grinding, or abrading of asbestos materials is already prohibited by state and federal law.

Please submit any written comments you wish to have considered concerning the Department's proposed action to William Leffler, P.E., at the above letterhead address. If you have any other questions, please contact him at 850/921-9522.

Sincerely,

C. H. Fancy, P.E.
Chief,
Bureau of Air Regulation

CHF/wl

Enclosures

In the Matter of an
Application for Permit by:

Better Roads, Inc.
P.O.Box 9979
Naples, Florida 33941

Draft Air Construction Permit No.: 7775122-001-AC
Relocatable Concrete, Asphalt, and Rock Crushing Plant
Statewide Operation

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of Draft permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Better Roads, Inc., applied to the Department on July 17, 2000, for an air construction permit to allow the permittee to advertise in counties for the purpose of construction/installation, performance testing, and to support an application for an air operating permit or subsequent air operating permit amendments when relocating notification is received.

Better Roads, Inc., maintains its primary Florida office at 5590 Shirley Street, P.O. Box 9979, Naples, Florida 33941. The relocatable facility will be based at the Babcock Ranch, located 2.5 miles South of Tuckers Corner off SR 31, in Charlotte County, Florida. The UTM coordinates are Zone 17; 419.23 km East; and, 2962.71 km North.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above action is not exempt from permitting procedures. The Department has determined that an air construction permit is required in order for the concrete, asphalt, and rock crusher facility to relocate to sites throughout the state by publishing Public Notice in the counties desired for construction/installation, performance testing, and potential operation.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of this facility will not adversely impact air quality, and the facility will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed "**Public Notice of Intent to Issue Air Construction Permit.**" The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S., to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the Final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen days from the date of publication of the "Public Notice of Intent to Issue Air Construction Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the draft permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal

regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, and the Draft permit) was sent by certified mail (*) and copies were mailed by U.S. Mail, or electronic mail (as noted) before the close of business on 10/3/00 to the person(s) listed:

Joseph Boness, III *, President; Better Roads, Inc.; P.O. Box 9979, Naples, Florida 33941
William D. Arlington, Arlington Environmental, Inc., P.O. Box 657, Okeechobee, Florida 34973
Stephanie Brooks, P.E., Brooks & Associates, 5068 NW 85th RD, Coral Springs, Florida 33067
Len Kozlov, DEP, Central District
Chris Kirts, DEP, Northeast District
Ed Middleswart, DEP, Northwest District
Bill Thomas, DEP, Southwest District
David Knowles, DEP, South District
Isidore Goldman, DEP, Southeast District
Daniela Banu, Broward County Department of Natural Resource Protection
H. Patrick Wong, Dade County Department of Environmental Resources Management
Richard Robinson, Regulatory and Environmental Services Department
Jerry Campbell, Hillsborough County Environmental Protection Commission
James E. Stormer, Palm Beach County Health Department
Peter Hessling, Pinellas County Department of Environmental Management
Kent Kimes, Sarasota County Natural Resources Department
Marie Driscoll, Orange County Environmental Protection Department

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara J. Friday 10/3/00
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Permit No. 7775122-001-AC
Better Roads, Inc.

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Better Roads, Inc., for a diesel engine powered relocatable concrete, asphalt, and rock crushing facility. The permittee plans to operate the facility at construction and industrial sites throughout Florida. The facility is a minor source of air pollution. It is subject to the Standards of Performance for New Stationary Sources, 40 CFR 60, Subpart OOO, for non-metallic mineral processing. It is not subject to the Prevention of Significant Deterioration (PSD) regulations, Rule 62-212.400, Florida Administrative Code (F.A.C). A Best Available Control Technology determination was not required for this facility.

The applicant's name and address is: Better Roads, Inc., P.O. Box 9979, Naples, Florida 33941.

The facility has been reviewed for potential operation in all counties of Florida. The facility will emit fugitive particulate matter from the crusher operation and the products of combustion from the diesel fuel firing. Control of process unconfined fugitive particulate matter emissions shall be accomplished by wetting the material using water spray bars as needed at unloading, at the crusher entrance, and at conveyor transfer points; and, non-process unconfined fugitive particulate matter emissions shall be controlled using watering and/or application of some dust suppressant(s) on the haul roads, work-yards and stockpiles. Because of the low emissions estimates and limited time of operation at any one site, the crusher will not cause or contribute to any violation of an ambient air quality standard or increment.

The Department will issue the Final permit, in accordance with the conditions of the Draft permit, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed Draft permit issuance action for a period of 14 (fourteen) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft permit, the Department shall issue a revised Draft permit and require, if applicable, another Public Notice.

The Department will issue the Final permit with the conditions of the Draft permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, Florida Statutes (F.S.). Mediation is not available for this action. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9370, fax: 850/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207, F.A.C.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Numbers and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the

Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Copies of the proposed air construction permit and the technical evaluation are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Florida Dept. of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114

Florida Dept. of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803
Telephone: 407/894-7555

Orange County Environmental Protection
Department - Air Program Section
800 Mercy Drive
Orlando, Florida 32808
Telephone: 407/836-1400

Florida Dept. of Environmental Protection
Northwest District Office
160 Governmental Center
Pensacola, Florida 32501
Telephone: 850/595-8300

Florida Dept. of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256
Telephone: 904/448-4300

Florida Dept. of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619
Telephone: 813/744-6100

Florida Dept. of Environmental Protection
Southeast District Office
400 North Congress Avenue
West Palm Beach, Florida 33416
Telephone: 561/681-6755

Florida Dept. of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902
Telephone: 941/332-6975

Broward County Department of Natural Resource Protection
218 Southwest First Avenue
Fort Lauderdale, Florida 33301
Telephone: 954/519-1202

Dade County Department of Environmental Resources Management
33 Southwest Second Avenue
Suite 900
Miami, Florida 33130
Telephone: 305/372-6925

Regulatory and Environmental Services Department
117 West Duval Street, Suite 225
Jacksonville, Florida 32202
Telephone: 904/630-3484

Hillsborough County Environmental Protection Commission
1410 North 21 Street
Tampa, Florida 33605
Telephone: 813/272-5530

Palm Beach County Health Department
901 Evernia Street
Post Office Box 29
West Palm Beach, Florida 33401
Telephone: 561/355-3070

Pinellas County Department of Environmental Management
300 South Garden Avenue
Clearwater, Florida 33756
Telephone: 727/464-4422

Sarasota County Natural Resources Department
1301 Cattleman Road, Building A
Sarasota, Florida 34232
Telephone: 941/378-6128

The complete project file, which includes the application, technical evaluation, Draft air construction permit, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S., is available in the office of the permitting authority in Tallahassee. Interested persons may contact William Leffler, P.E., project engineer, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-9522, for additional information.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Better Roads, Inc.
Babcock Ranch

Relocatable Concrete, Asphalt and Rock Crusher
Statewide Operation

Air Construction Permit No. 7775122-001-AC

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

1. APPLICATION INFORMATION

1.1 Applicant's Name and Address

Joseph Boness, III, President
Better Roads, Inc.
P.O. Box 9979
Naples, Florida 33941-9979

1.2 Reviewing and Processing Schedule

July 17, 2000 Date of Receipt of Complete Application

2. FACILITY INFORMATION

2.1 Relocatable concrete, asphalt and rock crushing unit operating throughout Florida.

Better Roads, Inc., plans to operate a 400 TPH Hazmag Model KR131D2912 crusher manufactured in 1994, together with associated equipment (feeder, screens, and conveyors) at sites in Florida. Better Roads, Inc., is a paving contractor and plans to use this facility for the manufacture of asphalt concrete aggregate from concrete, the processing of recycled asphalt pavement for use in new asphaltic concrete, and for the processing of limerock roadbase base material from its quarry. Major components of the relocatable facility are a grizzly feeder, impact crusher, vibrating screen, and conveyors, all of which are mounted on a transportable chassis. The impact crusher and feeder are driven by a 450 hp Caterpillar Model 3406C diesel engine. A 205 KW Caterpillar Model 3412 diesel powered generator (powered by a Caterpillar Model 3306 diesel engine) is mounted on a separate transportable chassis and powers the conveyors and vibrating screen. Water sprays and/or dust suppressants will be used as needed to control unconfined fugitive particulate emissions.

The owner desires a statewide relocatable permit in order to operate independently at road construction and quarry sites, but it contemplates crushing aggregate at facilities that are presently under stationary (or relocatable) source permits, especially its own limerock mines and asphalt batch plants. It has applied for modifications to its stationary source permits to allow the use of the crusher at such facilities.

The crusher is presently operating on the site of the Better Roads, Inc.'s Babcock Ranch asphalt batch plant, facility No.: 7770048; and, AIRS ID No: 7770048.

2.2 Standard Industrial Classification Codes (SIC)

Major Group No.	14	Mining and Quarrying of Nonmetallic Minerals
Group No.	1422	Stone Quarrying Crushed Limestone
Major Group No.	17	Construction – Special Trade Contractors
Group No.	1795	Wrecking and Demolition Work

2.3 *Facility category*

The portable crusher emits particulate matter from the handling and crushing of the limerock concrete and asphalt paving material and the normal products of combustion from the diesel fuel burned in the diesel engines used to power the crusher and the electric generator.

The portable crusher operation is classified as a minor air pollutant emitting facility. Air pollutant emissions are less than 100 TPY of any single criteria air pollutant.

This facility is not on the list of the 28 Major Facility Categories, Table 62-212.400-1. This facility is also classified as a synthetic non-Title V facility.

The applicant has requested a limit of 3120 hours per year on operation. The main diesel engine has a mechanical running time meter and the diesel generator has an electric running-time meter, which together with the logbook provides reasonable assurance that the federally enforceable operating limit can be validated.

3. PROJECT DESCRIPTION

3.1 *Emission point descriptions*

Review of this permit application addresses twelve emissions points, which have been further categorized to three emission units, those emanating from the portable crusher assembly, those from the main diesel power engine, those from the diesel power generator. Also considered were the unclassified general site emissions from the work yard and storage piles which are subject to management practices only.

EMISSION UNIT	EMISSION POINT/ ACTIVITY	DESCRIPTION	EMISSION UNIT DESCRIPTION
001	001	Grizzly Feeder	
	002	Primary Crusher	Hazmag Model KR131D2912 400 TPH rotary impact crusher
	003	Classifier	Cedarrapids vibrating screen deck 7ft x 20ft
	004	Conveyor	4ft x 30ft belt (oversize rock return from classifier to crusher feeder)
	005	Pre-screen conveyor	4ft x 50 ft belt
	006	Radial stacker No. 1	4ft x 80 ft belt
	007	Radial Stacker No. 2	4ft x 50 ft belt
	008	Radial Stacker No. 3	4 ft x 60 ft belt
002	009	Main Power Diesel Engine	450 HP Caterpillar Model 3406C diesel engine driving crusher
003	010	Diesel Powered Generator For electric motor driven conveyors, pump, etc.	205 KW Caterpillar diesel powered generator (manufacturer installed controls and fuel specification) Engine Model 3306
	011	Work-yard and roadway fugitive emissions	Non Process Particulate Emissions Water spray dust control (work practice)
	012	Storage pile fugitives	Non Process Particulate Emissions Water spray dust control (work practice)

4. PROCESS DESCRIPTION

4.1 General Information

Concrete, asphalt paving material, or quarry limerock will be fed to the crusher and reduced in size. The crushed material is screened and stored in an open area. It is loaded and unloaded from trucks. Dust from the crushing of the rocks will be controlled by wetting with water. Power for the unit comes from a 450 hp, Caterpillar Model 3406C diesel engine, which drives the crusher. A second 314 hp, Caterpillar Model 3306 diesel engine drives an electric generator, which powers the conveyors, vibrating screen, water spray pumps and lighting. These engines will consume a maximum of 30 gallons per hour of new, highway grade diesel fuel. The transportable unit will accommodate three classifier screens. A single ¾ inch grid screen is generally used for scalping crusher recycled asphalt pavement (RAP), with the oversized material returned for recrushing. Limerock crushed for road base material is often not graded and the classifier is run without screens. The production of crushed concrete aggregate may involve multiple screens to separate specific size fractions.

5. RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, and 62-212, of the Florida Administrative Code (F.A.C.).

This relocatable facility may operate in more than one county in Florida provided it has advertised its intention to operate in such county, and this construction permit has been amended and an appropriate operating permit is issued/amended. The proposed project is not subject to preconstruction review under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because it is a minor facility.

A determination of Best Available Control Technology (BACT) is not required for this minor facility. No analysis of the air quality impact of the proposed project's impacts on soils, vegetation and visibility, along with air quality impacts resulting from associated commercial, residential and industrial growth, is required for a minor facility.

The crusher and associated equipment are subject to 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants. This is due to both the capacity (>250 TPH) and date of manufacture of the crusher unit (since 1984). Because the crusher is subject to 40 CFR 60, Subpart OOO, the associated screening unit and all of the conveyors are likewise subject to the emission standards of that rule. Applicability of the federal standard is based upon the nameplate capacity of the crusher, notwithstanding the possibility that it may not be possible to achieve the regulatory threshold throughput because of the process limitations arising from the small sized screens in the associated classifier. The classifier screens are interchangeable and the crusher is capable of processing a greater throughput of larger sized aggregate.

Unconfined fugitive particulate matter emissions from the crusher operation, using water spray control, are minimal.

The diesel engines are subject to permitting pursuant to Rule 62-210.300, F.A.C., Permits Required; however, there are no unit specific regulatory requirements that apply. The potential emissions will be limited by the hours of operation. No regular testing needs to be required if the engine is run on new, highway grade (or better) diesel fuel; however, if the Department has reason to believe that a violation of the facility-wide visible emissions limit has occurred, a special compliance test can be ordered.

The crushing system, including the conveyors, classifiers and truck loading/unloading are subject to Rule 1-3.61, Rules of EPCHC. Detailed descriptions of this maintenance area will be included in the draft permit. When operated in this maintenance area, a "no visible emissions" (5% maximum) standard applies.

A 'relocatable facility permit' for a rock crusher does not authorize co-location and simultaneous operation at another stationary or relocatable asphalt plant, that does not have an air construction and air operation permit specifically authorizing the operation or such a crusher as an emission unit. The co-location prohibition includes adjacent sites. Better Roads, Inc. has applied to the South District for modification of its stationary source permits for the asphalt plants and its quarry to authorize the use of this crusher on those sites.

The emission units affected by this permit shall comply with all applicable regulations of the Florida Administrative Code and, specifically, the following Chapters and Rules:

Chapter 62-4	Permits
Rule 62-4.160(14)(a)	Records Retention
Rule 62-210.300	Permits Required
Rule 62-204.340	Designation of Attainment, Nonattainment and Maintenance Areas
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-204.370	Reports
Rule 62-210.300	Permits Required
Rule 62-210.370	Reports
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-296.320(b)	General Visible Emissions Standard
Rule 62-296.320(c)	Unconfined Emissions of Particulate Matter
Rule 62-297.310	General Test Requirements
Rule 62-297.310(4)	Applicable Test Procedures
Rule 62-297.310(7)(a)	Frequency of Compliance Tests: General Compliance Testing
Rules 62-297.310(8)(b) & (c)	Test Reports
Rule 62-297.400	EPA Methods Adopted by Reference
Rule 62-297.401	EPA Test Procedures
Chapter 62-257	Asbestos Program
Rule 62-701.520	Special Waste Handling: Asbestos
40 CFR 60, Subpart A	Standards of Performance for New Stationary Sources
40 CFR 60, Subpart OOO	Standards of Performance for Non Metallic Mineral Processing Plants
40 CFR 61, Subpart M	Asbestos NESHAP
HCEPC Rule 1-3.61	Hillsborough County EPC

The following table provides the applicable visible emission limits for the various emission points/activities:

Table 3: Visible Emission Limits

Emission Point / Activity	VE Limit (%Opacity) Limited by 40 CFR 60, Subpart 000	VE Limit (% Opacity) (for operation in a maintenance area)
001 Receiving Hopper/Grizzly Feeder	10	5
002 Crusher	15*	5
003 Screen(s)	10	5
004 through 008 Portable Belt Conveyor(s)	10**	5
011 and 012 Truck Loading/Unloading	<20	5

- * This limit applies since no capture system is used.
- ** This limit applies to transfer points onto conveyor belts only.

In Hillsborough County: The following area is designated maintenance for particulate matter or is part of the area that is not exempted by rule:

That portion of Hillsborough County which falls within the area of the circle having a centerpoint at the intersection of U. S. 41 South and State Road 60 and a radius of 12 kilometers.

Note: When operating in Hillsborough County, the permittee shall not cause, permit, or allow any visible emissions (five percent opacity). This includes, but is not limited to, the receiving hopper, crushers, belt conveyors, screens, and truck loading/unloading.

6. SOURCE IMPACT ANALYSIS

6.1 Emission Limitations

The proposed relocatable crusher operation will emit the following criteria pollutants: particulate matter, sulfur dioxide, nitrogen oxides, volatile organic compounds, and carbon monoxide. These emissions are well below the threshold for classification as a major source or for consideration of PSD or consumption of PSD increment. No specific emissions limitations will be imposed on the diesel engines except for the permit requirement that these engines only burn new highway grade fuel oil.

6.2 Emission Summary

The proposed relocatable crusher operation is a minor source for all criteria air pollutants. Potential emission estimates are based on 3,120 hours per calendar year of operation.

Water spray on roadways, work-yard, storage piles, and unit operations, will effectively minimize unconfined fugitive particulate emissions.

The following are emission estimates, based on information provided by the applicant, which has been reviewed for this permit. These numbers are reasonable based on 3120 hours per calendar year operation, AP 42 factors, and the consistent use of water spray for dust suppression.

Pollutants	Estimated Hourly Emissions lb/hr	Estimated Annual Emissions TPY (3120 hrs)
Crusher (emission points/activities 1-8)		
PM plus PM_{10}	0.8	3.49
Diesel Power (emission points/activities 9 & 10 above)		
NOx	18.3	28.5
SO_2	1.2	1.9
CO	3.9	6.1
PM_{10}	1.3	2.0
VOC	1.5	2.3

- diesel emissions are based on gross horsepower rather than fuel limitations specified in application.

The crusher and related machinery are covered by specific federal regulations, 40 CFR 60, Subpart OOO, which specifically require testing and compliance reports. There is no practical means of testing to quantify the particulate emissions from the crusher and associated equipment. 40 CFR 60.762 authorizes the use of visual estimation of opacity as a surrogate means of measuring compliance with the rule.

6.3 Control Technology Review

The crusher unit and associated conveyors are potential sources of unconfined fugitive particulate matter emissions. Emissions shall be controlled by wetting the material being processed ahead of the crusher, at conveyor drop points and at the classifier screens.

The diesel engines powering the crusher and the generator will emit products of combustion. However, there are no unit specific regulatory requirements that apply to the diesel engines. In order to minimize emissions, the diesel engines will be limited to using only new No. 2 fuel oil, or better.

6.4 Air Quality Analysis

An air quality analysis was not conduced for this project. The Department does not expect the low emissions from this operation to have a significant impact on the ambient air quality.

6.5 Crushing or grinding of asbestos containing materials prohibited.

The crushing and grinding of asbestos containing materials is prohibited by federal and state regulations at 40 CFR 61, Subpart M, and Chapter 62-257, F.A.C., respectively.

7. CONCLUSION

Based on the technical evaluation of the application, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations provided the Department's restrictions described in the Specific Conditions of the proposed permit are met. The General and Specific Conditions are listed in the attached permit.

W. Leffler 29 Sept 2000

Permit Engineer:

William Leffler, P.E.

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

P.E. Certification Statement

Better Roads, Inc.
P.O. Box 9979
Naples, Florida 33941

DEP File No.: 7775122-001-AC
Facility ID No.: 7775122

Project: Relocatable Air Construction Permit for Hazamg Model KR131D2912 Concrete, Asphalt, and Rock Crusher Facility

I HEREBY CERTIFY that the engineering features described in the above referenced application and related additional information submittals, if any, and subject to the proposed permit conditions, provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4, 62-204, 62-210, 62-296, 62-297 and analogous federal regulations. With the following exceptions:

The co-location of this relocatable concrete, asphalt, and rock crusher and screening unit on another site with another stationary or relocatable air pollution source may cause emissions from such a site to exceed the 100 tons per year threshold of Title V of the Clean Air Act. It will be incumbent upon the permittee to coordinate with permitting authorities to avoid excessive emission contributions on a site otherwise classified as a minor facility.

I have not evaluated, nor do I certify the compliance of this facility regarding any application beyond the scope of my discipline and training in air quality engineering (expressly excluding, but not limited to the electrical, mechanical, structural, personnel safety, hydrological, and geological features).

William Leffler, P.E.
Registration Number: FLPE 41972

29 Sept 2006
Date

Permitting Authority:
Florida Department of Environmental Protection
Division of Air Resources Management, Bureau of Air Regulation
2600 Blair Stone Road, Mail Station #5505
Tallahassee, Florida 32399-2400

Telephone: 850/921-9522
Fax: 850/922-6979

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

PERMITTEE:
Better Roads, Inc.
P.O. Box 9939
Naples, Florida 33941

FID NO.: 7775122
Permit No.: 7775122-001-AC
SIC No.: 1795
Expiration Date: *5 years from issue*
Project: Diesel engine powered relocatable concrete, asphalt, and rock crushing plant designated Hazmag Model KR131D2912

AUTHORIZED REPRESENTATIVE

Mr. Joseph B. Boness, III
Better Roads, Inc.
P.O. Box 9979
Naples, Florida 33941

PROJECT

This permit allows the applicant to construct/install a diesel engine powered relocatable concrete, asphalt, and rock crushing plant, designated as Hazmag Model KR131D2912 Crushing Plant, together with associated crusher feeder, classifier screens, conveyors, primary diesel engine and an auxiliary diesel electric generator.

STATEMENT OF BASIS

This air construction permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to construct/install the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

APPENDICES

The attached appendices are a part of this permit:

Appendix GC - General Permit Conditions
Appendix PC - Permitted Counties

Howard L. Rhodes, Director
Division of Air Resources Management

FACILITY DESCRIPTION

This facility consists of a 400 tons per hour (TPH) Hazmag Model KR131D2912 impact crusher facility with associated crusher feeder, classifier screens and conveyors, all of which are mounted on a transportable chassis and powered by a 450 hp Caterpillar diesel engine mounted on the same transportable chassis. The crusher and auxiliary conveyors, screen shaker and water spray pumps, are electrically driven from the 205 KW Caterpillar diesel generator set. Process unconfined fugitive particulate matter emissions from the crushing operation, specifically the feeders, screen classifiers and conveyor transfer points, shall be controlled by a water-spray suppression system. Non-process unconfined fugitive particulate matter emissions from the roadways, stockpiles and work-yard, shall be controlled by watering and/or by application of some effective dust suppressant(s).

REGULATORY CLASSIFICATION

The facility is subject to the regulations of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants. The generator portion of the facility is regulated under Rule 62-210.300, F.A.C., Permits Required, since there are no unit specific regulatory requirements that apply.

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application received: July 17, 2000

PERMITTED COUNTIES

Please see Appendix PC, Permitted Counties, for a list of counties in which the facility will be able to operate once Public Notice has been published, the performance testing has been completed satisfactorily, and the air operation permit has been issued or amended after proper relocation notification. As proof of publication is received by the Department, the publication date shall be inserted into Appendix PC.

OPERATING LOCATION

The facility will be based near SR 31 on Babcock Ranch property 2.5 miles south of Tucker's Corner in Charlotte County, Florida. The UTM coordinates for that site are Zone 17; 410.23 km East; and, 2962.71 km North.

The following facility-wide conditions apply to all emissions units at this facility.

ADMINISTRATIVE

1. Regulating Agencies: All documents relating to the initial application for a permit to operate and all initial compliance tests shall be submitted to the Department's Bureau of Air Regulation in Tallahassee. Subsequent applications for permit renewals, reports, tests, minor modifications, and notifications shall be submitted to the district office or local program that has permitting/compliance jurisdiction over the current or proposed operating location.

2. General Conditions: In addition to the specific conditions of this permit, the owner and operator are subject to and shall operate under the General Permit Conditions G.1 through G.15, contained in the attached Appendix GC - General Permit Conditions of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403, F.S.
[Rule 62-4.160, F.A.C.]

3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C., and follow the application procedures in Chapter 62-4, F.A.C.
[Rule 62-210.900, F.A.C.]

5. Extension of Expiration Date: The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit.
[Rules 62-210.300(1), 62-4.070(4) and 62-4.210, F.A.C.]

6. Notification of Intent to Relocate: An air permit for a relocatable facility shall be amended upon each change of location of the facility. The owner or operator of the facility must submit a Notification of Intent to Relocate Air Pollutant Emitting Facility [DEP Form No. 62-210.900(6)] to the Department's District office and/or, if appropriate, the local program office, at least seven (7) days prior to the change, if the facility would be relocated to a county in which public notice of the proposed operation of the facility had been given within the previous five years pursuant to Rule 62-210.350(1), F.A.C., or otherwise thirty (30) days prior to the change. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated.

The notification shall be submitted to the Department's District office and any approved local program office using DEP Form No. 62-210.900(6), along with the appropriate processing fee, and a USGS topographic map showing all potential sites in such county.
[Rule 62-210.370(1), F.A.C.]

7. Operation Permit Required: This permit authorizes construction/installation of the facility and initial operation for testing purposes in order to determine compliance with the applicable rules and standards. An operation permit is required for continued commercial operation of the facility. The owner or operator shall apply for and receive an operation permit prior to expiration of this permit. To apply for an operation permit, the applicant shall submit the appropriate application fee and, in quadruplicate, the appropriate application form, a certification that construction was completed with a notation of any deviations from the conditions in the construction permit, compliance test results, and such additional information as the Department may by law require. A copy of the compliance test results must be submitted to The Department's Tallahassee office as well as the district office or local program office that has compliance jurisdiction over the location where the performance test took place.
[Rules 62-4.030, 62-4.050, 62-4.220 and 62-210.300(2), F.A.C.]

8. Applicable Regulations: Unless otherwise indicated in this permit, the construction/installation and operation of the facility shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S.; Chapters 62-4, 62-204, 62-210, 62-296 and 62-297, F.A.C.; and, the Code of Federal Regulations Title 40, Parts 60 and 61, adopted by reference in Chapter 62-204, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local regulations.
[Rules 62-204.800 and 62-210.300, F.A.C.]

EMISSION LIMITING STANDARDS

9. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions elsewhere in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). If a special compliance test is required (see specific condition 21), the test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

10. Unconfined Emissions of Particulate Matter:

(a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.

(b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.

(c) Reasonable precautions committed to by the permittee:

- Unconfined fugitive particulate matter emissions that might be generated from various emission points throughout the crushing operation shall be controlled by a water suppression system with spray bars located at the various emissions points of the operation including, but not limited to, the Grizzly feeder, the entrance and exit of the impact crusher, the classifier screens and conveyor drop points.
- All stockpiles, roadways and work-yard, where this crushing operation is located, shall apply water (by water trucks equipped with spray bars) and/or an effective dust suppressant(s) on a regular basis to control any unconfined fugitive particulate matter emissions that may be generated by vehicular traffic or prevailing winds.

(d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.
[Rule 62-296.320(4)(c), F.A.C. ; and, application received July 17, 2000]

11. General Pollutant Emission Limiting Standards:
a. No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
{Permitting note: No vapor control device was deemed necessary at the time of issuance of this permit.}

b. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.

{Permitting note: An objectionable odor is defined in Rule 62-210.200, F.A.C., Definitions, as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

[Rules 62-296.320(1)(a) and (2), F.A.C.]

OPERATIONAL REQUIREMENTS

12. Modifications: No emissions unit or facility shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification.

[Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

13. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's district office and, if applicable, appropriate local program. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.

[Rule 62-4.130, F.A.C.]

14. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly.

[Rule 62-210.650, F.A.C.]

Subsection A.

The emissions units/activities contained in this subsection and their descriptions are as follows:

EMISSIONS UNIT/ACTIVITY NO.	DESCRIPTION
001	400 TPH Hazmag impactor crusher; Model KR131D2912; S/N: HU-1470; Mfg 1994; with associated feeder, classifier screens, and conveyors.
002	Caterpillar diesel engine, Model 3406C, powering the crusher.
003	205 KW Caterpillar, Model 3306, diesel powered generator set which powers the conveyors, classifier screen shaker and the water-spray pump.

Emissions unit 001 is subject to the requirements of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR 60.670 - 60.676) and 40 CFR 60, Subpart A. The diesel engines are required to be permitted pursuant to Rule 62-210.300(1), F.A.C., Permits Required, but are not subject to any testing requirements. They will be allowed to burn new No. 2 fuel oil, or better.

The following specific conditions apply to the above referenced emissions units after construction:

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

1. Hours of Operation: The emissions units/activities are allowed to operate a maximum of 24 hours/day, 364 days per calendar year, but not to exceed 3120 hours per calendar year.
[Rule 62-210.200, F.A.C., Definitions - PTE; and, application received July 17, 2000]

2. Permitted Capacity: The maximum crusher operation process throughput of materials is 400 TPH.
[Rule 62-210.200, F.A.C., Definitions - PTE; and, application received July 17, 2000]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

3. Visible Emissions: The following emission points/activities are subject to the visible emission limits in Table 1.

Table 1

Emission Point/Activity	Visible Emissions Limit (% Opacity) if operating in a PM maintenance area	Visible Emissions Limit (% Opacity) if not operating in a PM maintenance area and subject to 40CFR60, Subpart OOO
Receiving Hopper and Grizzly Feeder	5	10
Crusher	5	15*
Portable Belt Conveyor(s)	5	10**
Screen(s)	5	10
Truck Loading/Unloading	5	<20

- * This limit applies since no capture system is used.
- ** This limit applies to transfer points onto conveyor belts only.

Hillsborough County Particulate Maintenance Area:

The description of the maintenance area and the visible emissions limits are listed below:

That portion of Hillsborough County which falls within the area of the circle having a centerpoint at the intersection of U. S. 41 South and State Road 60 and a radius of 12 kilometers.

The permittee shall not cause, permit, or allow any visible emissions (five percent opacity). **[Rule 62-204.340, F.A.C.; and, Rule 1-3.61, Rules of the Environmental Protection Commission of Hillsborough County]**

4. No Visible Emissions - Saturated Materials: No owner or operator shall cause to be discharged into the atmosphere any visible emissions from:
a. Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.
b. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.
[40 CFR 60.672(h)(1) & (2)]

5. Excess Emissions: The following excess emissions provisions cannot be used to vary any NSPS requirements from any subpart of 40 CFR 60:

a. Excess emissions resulting from start-up, shutdown or malfunction of any emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

6. Test Frequency:

a. Prior to obtaining an operation permit for this facility, the owner or operator shall conduct a visible emissions compliance test to demonstrate compliance with the standards of this permit.
[Rule 62-297.310(7)(a)1., F.A.C.]

b. The owner or operator of the facility shall conduct visible emissions tests annually for all emission points/activities subject to a visible emission standard.
[Rule 62-297.310(7)(a)4.a., F.A.C.]

7. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rule 62-297.310(2), F.A.C.]

8. Test procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C.

[Rule 62-297.310(4), F.A.C.]

9. Determination of Process Variables:
a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

10. Test Notification: The owner or operator shall notify the Department's district office and/or, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[Rule 62-297.310(7)(a)9., F.A.C.; and, 40 CFR 60.8]

[Permitting note: The federal requirements of 40 CFR 60.8 require 30 days notice of the initial test and any tests required under section 114 of the Clean Air Act, but the Department rules require 15 days notice for the annual compliance tests. Unless otherwise advised by the Department, provide 15 days notice prior to conducting annual tests, except for the initial test when 30 days notice is required.]

11. Visible Emissions Test Method: In determining compliance with the standards in 40 CFR 60.672(b) and (c), the owner or operator shall use EPA Method 9 and the procedures in 40 CFR 60.11, with the following additions:
a. The minimum distance between the observer and the emissions source shall be 4.57 meters (15 feet).
b. The observer shall, when possible, select a position that minimizes interference from other fugitive emissions units (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
c. For affected emissions units using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
[40 CFR 60.675(c)(1)(i), (ii) & (iii)]

12. When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR 60.672(b), the duration of the EPA Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
a. There are no individual readings greater than 10 percent opacity; and
b. There are no more than 3 readings of 10 percent for the 1-hour period.
[40 CFR 60.675(c)(3)(i) & (ii)]

13. When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under 40 CFR 60.672(c), the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
a. There are no individual readings greater than 15 percent opacity; and
b. There are no more than 3 readings of 15 percent for the 1-hour period.
[40 CFR 60.675(c)(4)(i) & (ii)]

14. Visible Emissions Test - Emissions Interference: For the method and procedure of 40 CFR 60.675(c), if emissions from two or more emissions units continuously interfere so that the opacity of fugitive emissions from an individual affected emissions unit cannot be read, either of the following procedures may be used:
a. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected emissions units contributing to the emissions stream; or,
b. Separate the emissions so that the opacity of emissions from each affected emissions unit can be read.
[40 CFR 60.675(e)(1)(i) & (ii)]

15. No Tests Required - Saturated Materials: Method 9 performance tests under 40 CFR 60.11 and 40 CFR 60.675 are not required for:
a. Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.
b. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.
[40 CFR 60.675(h)(1) & (2)]

16. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7)(b), F.A.C.]

REPORTING AND RECORDKEEPING REQUIREMENTS

17. Log: The permittee shall maintain a daily log showing at a minimum, the following information:

(a) The location and production rate.
(b) The hours of operation of the crusher system.
(c) Maintenance and repair logs for any work performed on the permitted emissions units.
(d) The use of wetting agents to control unconfined fugitive dust.
(e) Fuel consumption.
This data shall be made available to the Department or its designee upon request.
[Rule 62-4.070(3), F.A.C.]

18. Operation and Maintenance (O&M) Plan and Log: The permittee shall keep an O&M plan and a daily log for the air pollution control equipment with the facility. The log shall include the list of the parameters being monitored, the frequency of the check/maintenance, observations, and comments.
[Rule 62-4.070(3), F.A.C.]

19. Test Reports: The owner or operator shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR 60.672, including reports of opacity observations made using Method 9 to demonstrate compliance with 40 CFR 60.672(b) and 40 CFR 60.672(c).
(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly

computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The method, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, its general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.

[40 CFR 60.676(f); and, Rules 62-297.310(8)(b) and (c)1. - 6., F.A.C.]

20. Change From Saturated to Unsaturated Material: The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to 40 CFR 60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in 40 CFR 60.672(b) and the emission test requirements of 40 CFR 60.11 and 40 CFR 60, Subpart OOO. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in 40 CFR 60.672(h).
[40 CFR 60.676(g)]

21. Records Retention: This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit.
[Rule 62-4.160(14)(a), F.A.C.]

22. Duration of Recordkeeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These records shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
[Rule 62-4.160(14)(b), F.A.C.]

23. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the Standards of Performance for New Stationary Sources, excess emissions shall also be reported in accordance with 40 CFR 60.7.
[Rule 62-4.130, F.A.C.; and, 40 CFR 60.7]

24. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

NSPS GENERAL PROVISIONS

[Note: The numbering of the original rules in the following conditions has been preserved for ease of reference. In cases where the state requirements are more restrictive than the NSPS general requirements, the state requirements shall prevail.]

25. Notification and Recordkeeping:
(a) Any owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4). A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(b) The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
(f) The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least three years following the date of such measurements, maintenance, reports, and records.
[40 CFR 60.7]

26. Performance Tests:
(a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).
(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.
(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level

of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present.
[40 CFR 60.8]

27. Compliance with Standards and Maintenance Requirements:
(a) Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.
(b) Compliance with opacity standards in 40 CFR 60.11 shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of 40 CFR 60.11, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5). [Under certain conditions (40 CFR 60.675(c)(3)&(4)), Method 9 observation time may be reduced from 3 hours to 1 hour. Some affected facilities are exempted from Method 9 tests (40 CFR 60.675 (h)).]
(c) The opacity standards set forth in 40 CFR 60.11 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
(d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.
[40 CFR 60.11]

28. Circumvention: No owner or operator subject to the provisions of 40 CFR 60.12 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[40 CFR 60.12]

29. General Notification and Reporting Requirements:
(a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.
(b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[40 CFR 60.19]

30. Prohibited Operations: Asbestos Containing Materials, 40 CFR 61, Subpart M: This facility shall not process Asbestos Containing Materials (ACM), whether regulated asbestos containing material (RACM), category I or category II, and whether friable or nonfriable when received at the facility.

(1) "Asbestos" means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite and includes trade acronyms products such as amosite.

(2) "Asbestos-containing materials", ACM, means any materials which contain more than one percent asbestos as determined by Polarized Light Microscopy. Based on a representative composite sample.

(3) "Asbestos removal project" means renovation or demolition operation in a facility that involves the removal of a threshold amount of regulated asbestos-containing material.

(4) "Category I Nonfriable Asbestos-Containing Material (ACM)" means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1

percent asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy.

(5) "Category II Nonfriable ACM" means any material, excluding Category I Nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

[40 CFR 61, Subpart M; Chapter 62-257, F.A.C.; and, Rules 62-730.300 and 62-701.520, F.A.C.]

31. Restricted/Prohibited Activities: Co-location at Existing Stationary Source Facilities: This relocatable crusher facility is not authorized to operate on the premises of, or adjacent to, any other permitted air pollution facility, unless the permit for such stationary source includes this crushing unit as an emission unit within such facility's air construction and air operation permits.

MISCELLANEOUS

32. The diesel engines are allowed to fire new No. 2 fuel oil, or better.
[Rules 62-4.070(3) and 62-210.200, Definitions - PTE, F.A.C.]

The following general conditions apply to all permits pursuant to Rule 62-4.160, F.A.C.:

G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

(a) Have access to and copy and records that must be kept under the conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

(a) A description of and cause of non-compliance; and

(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

G.11 This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology *( )*

(b) Determination of Prevention of Significant Deterioration *( )*; and

(c) Compliance with New Source Performance Standards *(X)*.

G.14 The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(c) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(d) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

The permittee is authorized to operate in the following counties where public notice has been published:

Permitted Counties:	Date of Publication:	Permitted Counties:	Date of Publication:	Permitted Counties:	Date of Publication:
Alachua		Hamilton		Okeechobee	
Baker		Hardee		Orange	
Bay		Hendry		Osceola	
Bradford		Hernando		Palm Beach	
Brevard		Highlands		Pasco	
Broward		Hillsborough		Pinellas	
Calhoun		Holmes		Polk	
Charlotte		Indian River		Putnam	
Citrus		Jackson		St. Johns	
Clay		Jefferson		St. Lucie	
Collier		Lafayette		Santa Rosa	
Columbia		Lake		Sarasota	
Dade		Lee		Seminole	
DeSoto		Leon		Sumter	
Dixie		Levy		Suwannee	
Duval		Liberty		Taylor	
Escambia		Madison		Union	
Flagler		Manatee		Volusia	
Franklin		Marion		Wakulla	
Gasden		Martin		Walton	
Gilchrist		Monroe		Washington	
Glades		Nassau			
Gulf		Okaloosa			

State of Florida
Department of Environmental Protection

Memo

TO	Clair Fancy
THRU	Bruce Mitchell
FROM	William Leffler, P.E.
DATE	September 29, 2000
SUBJECT	Intent to Issue Package Draft Air Construction Permit No.: 7775122-001-AC Better Roads, Inc. Relocatable Concrete, Asphalt, and Rock Crushing Facility Hazmag Model KR131D2912
Day 90	October 15, 2000

This Draft air construction permit is for the construction/installation of a diesel engine powered relocatable concrete, asphalt, and rock crushing facility. The air construction permit will allow the permittee to advertise in counties for the purpose of construction/installation, performance testing, and to support an application for an air operating permit or subsequent air operating permit amendments when relocating notification is received.

The application history is as follows:

- Application for air construction permit received on July 17, 2000

The relocatable concrete, asphalt, and rock crusher is a minor facility. Unconfined fugitive particulate matter emissions from the process will be controlled by a water suppression system, and unconfined fugitive non-process particulate emissions from roadways, stockpiles and work-yard, will be controlled by watering and/or application of some effective dust suppressant(s).

Applicant contemplates use of this facility at sites co-located with asphalt batch plants to prepare recycled asphalt pavement for incorporation as aggregate in new paving mixtures. Modification of stationary source permits for these asphalt batch plants is pending in the South District. Applicant wishes to obtain the right to operate independently of stationary source permits by this application for a relocatable facility permit.

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Joseph Boness, III
President
Better Roads, Inc.
P.O. Box 9979
Naples, Florida 33941

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* B. Date of Delivery 10-10-00

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7099 3400 0000 1449 3423

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

7099 3400 0000 1449 3423

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To: Mr. Joseph Boness, III

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Name *(Please Print Clearly) (to be completed by mailer)*

Street, Apt. No., or PO Box No. P-O - Box 9979

City, State, ZIP+4 Naples, Florida 33941

PS Form 3800, July 1999 See Reverse for Instructions

Arlington Environmental, Inc.

Post Office Box 657
Okeechobee, Florida 34973

Telephone: (863)467-0555
Fax: (520)569-8253
E-mail ArlingtonEnv@USA.Net

July 11, 2000

Mr. Alvaro Linero
Department of Environmental Protection
Air Resources Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Better Roads, Inc.
Rock Crusher – Air Permit Application

Dear Mr. Linero:

Enclosed are four copies each of the following items relating to the above referenced Air Permit Application:

Hard copy of Section 1 – Application for Air Permit-Long Form

Four sets of the Application on Micro Floppy Disks

A check in the amount of $250.00, made payable to the Florida Department of Environmental Protection for the permit fee.

Hard copies of Attachments D and E

If you have any questions, please feel free to call me.

Sincerely,

W. Arlington

William D. Arlington

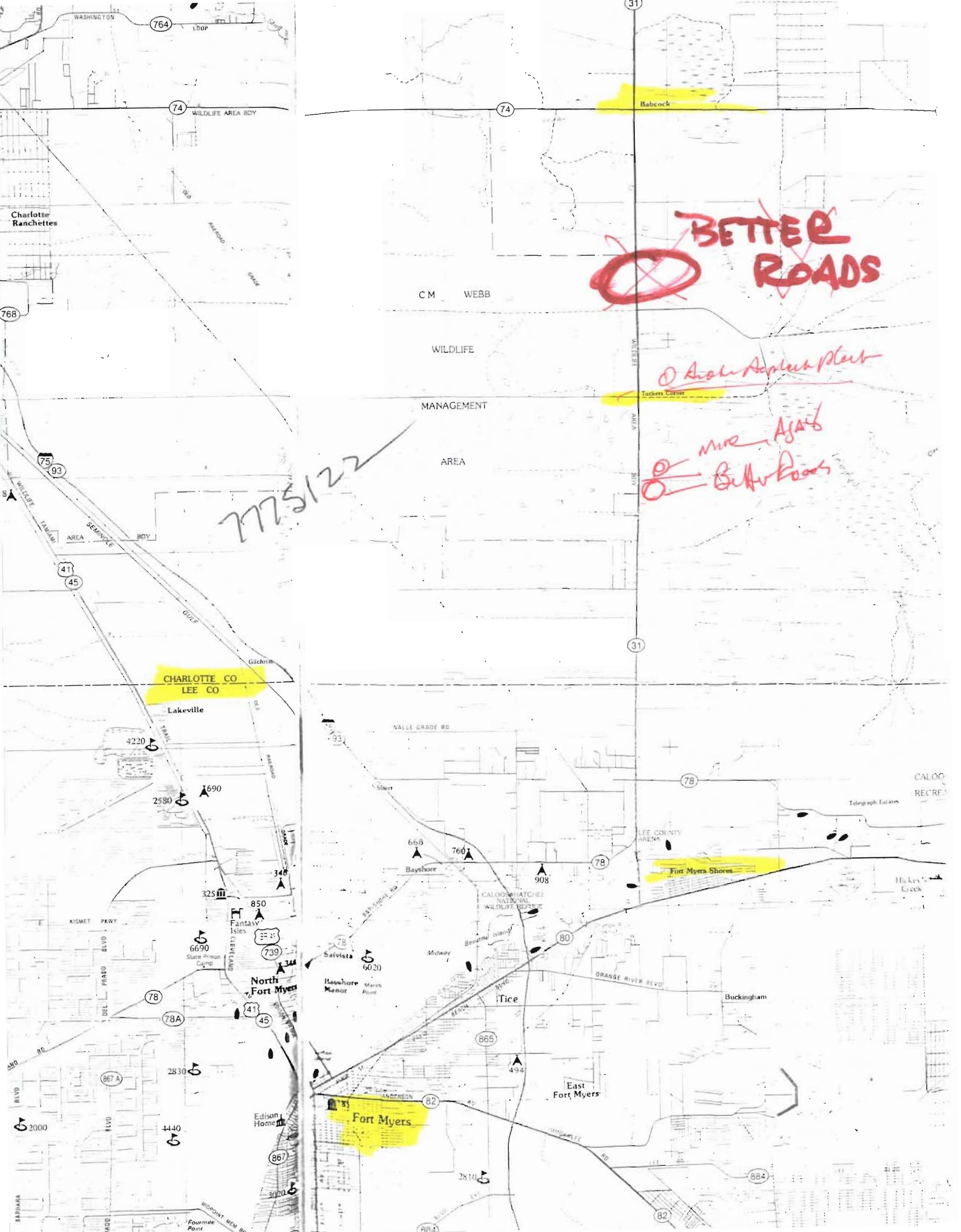
Enclosures

Better Roads,Inc. Photo of Hazmag 400 TPH relocatable crusher

IM9074.JPG

Better Roads,Inc. Photo of Hazmag 400 TPH relocatable crusher

IM9074.JPG


WASHINGTON
764
LOOP
74
WILDLIFE AREA BDY
74
Babcock
31
Charlotte Ranchettes
OLD
RAILROAD
GRADE
BETTER ROADS
768
CM WEBB
WILDLIFE
MANAGEMENT
AREA
Tuckers Corner
WILDLIFE
AREA
BDY
7775122
75
93
WILDLIFE
TAMIAMI
AREA
SEMINOLE
BDY
41
45
GULF
31
Gilchrist
CHARLOTTE CO
LEE CO
Lakeville
TRAIL
OLD
RAILROAD
93
NALLE GRADE RD
4220
690
2580
78
CALOO
RECRE
Telegraph Estates
LEE COUNTY ARENA
668
760
Bayshore
78
908
Fort Myers Shores
Hickey's Creek
348
325
850
KISMET PKWY
Fantasy Isles
CALOOSAHATCHEE NATIONAL WILDLIFE REFUGE
BLVD
PEADO
DEL
6690
State Prison Camp
CLEVELAND
739
78
Salvista
6020
Beautiful Island
80
Midway
Bayshore Manor
ORANGE RIVER BLVD
Buckingham
North Fort Myers
78
78A
41
45
Tice
BEACH
865
2830
867A
494
East Fort Myers
ANDERSON
82
Fort Myers
2000
4440
Edison Home
867
2810
884
3020
Fourmile Point
MIDPOINT MEM BR
82
884

7775122-001-AC

Department of
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name : Better Roads, Inc.
2. Site Name : Babcock Plant
3. Facility Identification Number : 0150048 [ ] Unknown
4. Facility Location : near SR # 31 on Babcock Ranch property, approximately 2.5 miles south of Tucker's Corner in Charlotte County, Florida. Street Address or Other Locator : SR # 31 City : Port Charlotte County : Charlotte Zip Code :
5. Relocatable Facility? [X] Yes [ ] No 6. Existing Permitted Facility? [X] Yes [ ] No

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : Joseph Boness III
Title : President

2. Owner or Authorized Representative or Responsible Official Mailing Address :

Organization/Firm : Better Roads, Inc.
Street Address : Post Office Box 9979
City : Naples
State : FL Zip Code : 33941-9979

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (941)597-2181 Fax : (941)597-1597

4. Owner/Authorized Representative or Responsible Official Statement :

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*

President 7-5-00

Signature Date

* Attach letter of authorization if not currently on file.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
Unknown	portable rock crusher	AC1F

Purpose of Application and Category

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

[ ] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

[ ] Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

[ ] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

[ ] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

[ ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

[ ] Renewal air operation permit under Fule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

[ ] Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

[ ] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any :

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

[**X**] Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one :

[X] Attached - Amount : $250.00 [ ] Not Applicable.

Is it also exempt?

Construction/Modification Information

1. Description of Proposed Project or Alterations : to install and operate a relocatable rock crusher, capable of crushing limerock, recycled asphalt and concr The unit has a rated capacity of 400 tons/hr.
2. Projected or Actual Date of Commencement of Construction : 01-Jul-2000
3. Projected Date of Completion of Construction : 01-Aug-2000

Professional Engineer Certification

1. Professional Engineer Name : Stephanie S.Brooks, PE Registration Number : 42489
2. Professional Engineer Mailing Address : Organization/Firm : Brooks & Associates Street Address : 5068 NW 85th RD City : Coral Springs State : FL Zip Code : 33067-1989
3. Professional Engineer Telephone Numbers : Telephone : (954)796-1987 Fax : (954)796-1984

4. Professional Engineer Statement :

I, the undersigned, hereby certify, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Stephanie B. Brooks, PE — 6-18-08

Signature — Date

(seal)

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact :

Name : William D. Arlington
Title : Permit Coordinator

2. Application Contact Mailing Address :

Organization/Firm : Arlington Environmental
Street Address : P O Box 657
City : Okeechobee
State : FL Zip Code : 34973

3. Application Contact Telephone Numbers :

Telephone : (863)467-0555 Fax :

Application Comment

This application is for a portable crusher. The crusher will operate at various locations throughout the state.

Document D

Unconfined Emissions of Particulate Matter

Per FAC Rule 62-296.320(3)

The facility shall use reasonable precautions to minimize fugitive emissions from the portable crusher. These shall consist of minimizing drop distance while loading the crusher and wetting the trafficked areas with water as necessary.

Document E

Other sources of fugitive emissions include stockpiled material which will be wetted as necessary to prevent emissions to the atmosphere.