

SUPPLEMENT TO PERMIT NO. 164-70D

Ron Brown & Sons, Inc.  
Bear Lake, Michigan

December 11, 1997

GENERAL CONDITIONS

1. Rule 201(1) - The process or process equipment covered by this permit shall not be reconstructed, relocated, altered, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule.
2. Rule 201(4) - If the installation, reconstruction, relocation, or alteration of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the person to whom this permit was issued, or the designated authorized agent, shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or alteration of the equipment allowed by this Permit to Install.
3. Rule 201(6)(a) - If this Permit to Install is issued for a process or process equipment located at a stationary source which is subject to a Renewable Operating Permit pursuant to Rule 210, trial operation is allowed if the equipment performs in accordance with the terms and conditions of this Permit to Install and until the appropriate terms and conditions of this Permit to Install have been incorporated into the Renewable Operating Permit as a modification pursuant to Rule 216 or upon renewal pursuant to Rule 217. Upon incorporation of the appropriate terms and conditions into the Renewable Operating Permit, this Permit to Install shall become void.
4. Rules 201(7)(a) or 216(1)(a)(v)(A) - Except as provided in General Condition No. 3, operation of the process or process equipment is allowed if, not more than 30 days after completion of the installation, construction, reconstruction, relocation, alteration, or modification authorized by this Permit to Install, the person to whom this Permit to Install was issued, or the authorized agent pursuant to Rule 204, notifies the District Supervisor, Air Quality Division, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, alteration, or modification is considered to occur not later than commencement of trial operation of the process or process equipment.
5. Rule 201(7)(b) - Except as provided in General Condition No. 3, not more than 18 months after completion of the installation, construction, reconstruction, relocation, alteration, or modification authorized by this Permit to Install, the person to whom this permit was issued, or the authorized agent pursuant to Rule 204, shall notify the District Supervisor, Air Quality Division, in writing, of the status of compliance of the process or process equipment with the terms and conditions of the Permit to Install. The notification shall include all of the following:
  - A. The results of all testing, monitoring, and recordkeeping performed to determine the actual emissions from the process or process equipment and to demonstrate compliance with the terms and conditions of the Permit to Install.

- B. A schedule of compliance for the process or process equipment as described in Rule 119(a).
  - C. A statement, signed by the person owning or operating the process or process equipment, that, based on information and belief formed after reasonable inquiry, the statements and information in the notification are true, accurate, and complete.
6. Rule 201(8) and Section 5510 of Act 451, P.A. 1994 - The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Departments' rules or the Clean Air Act.
  7. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required in Rule 219(1)(a), (b) and (c). The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality.
  8. Rule 901 - Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property.
  9. Rule 912 - The owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant in excess of standards for more than one hour, or of any air contaminant in excess of standards for more than two hours, as required in this rule, to the District Supervisor, Air Quality Division. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the District Supervisor within 10 days, with the information required in this rule.
  10. Approval of this permit does not exempt the person to whom this permit was issued from complying with any future regulations which may be promulgated under Part 55 of Act 451, P.A. 1994.
  11. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
  12. Operation of this equipment may be subject to other requirements of Part 55 of Act 451, P.A. 1994, and the rules promulgated thereunder.

SPECIAL CONDITIONS

13. Rule 331 - The particulate emission from the hot mix asphalt facility shall not exceed 0.30 pound per 1,000 pounds of exhaust gases.
14. Visible emissions from the hot mix asphalt facility shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301(1)(a) .
15. Rules 1001, 1003 and 1004 - Verification of particulate emission rates from the hot mix asphalt facility by testing, at owner's expense, in accordance with Department requirements, may be required for operating approval. If a test is required, stack testing procedures and the location of stack testing ports must have prior approval by the District Supervisor, Air Quality Division, and results shall be submitted within 120 days of the written requirement for such verification.
16. Applicant shall not operate the hot mix asphalt facility unless the rotoclone is installed and operating properly.
17. Applicant shall not operate the hot mix asphalt facility on any fuel other than natural gas or propane.
18. Applicant shall comply with all applicable provisions of Attachment A.

**ATTACHMENT A**

**GENERAL PERMIT ADDENDUM FOR HOT MIX ASPHALT PLANTS**  
**SPECIAL CONDITIONS**

1. The following special conditions are intended to be added to a source's current permit to install and/or permit to operate in order to place a federally enforceable limit on the source's production, thus limiting its potential to emit below major source thresholds. This general permit does not replace a source's current permit, but is added to all current permit conditions. In the event that the existing permit for the HMA facility contains more stringent production rates or emission limitations, then the applicant shall comply with the limits of the existing permit.
2. The Carbon Monoxide (CO), Sulfur Dioxides (SO<sub>2</sub>), Volatile Organic Compounds (VOCs), Oxides of Nitrogen (NO<sub>x</sub>), Particulate Matter (PM), and Lead annual emission rates from the Hot Mix Asphalt (HMA) manufacturing plant shall not exceed 99 tons per year based on a twelve-month rolling period. Compliance with this condition shall be determined by limiting the production rate and emission limitation specified in pounds of pollutants per ton of HMA produced based on each fuel type:

<b>Fuel Type</b>	<b>Annual Production Rate</b> (tons of HMA per rolling twelve-month period)	<b>Emission Limitation for each pollutant: CO, NO<sub>x</sub>, SO<sub>2</sub>, VOCs, and PM</b> (pounds of pollutant per ton of HMA produced)
Natural Gas & Liquefied Petroleum Gas	1,000,000	0.1980*
No. 2 Fuel Oil	1,600,000	0.1225*
No. 4, 5, 6 Fuel Oil and Recycled Fuel Oil	940,000	0.2010*

Sample calculation:

$$\frac{\text{tons pollutant}}{\text{year}} = \frac{\text{lb pollutant}}{\text{ton HMA}} \times \frac{\text{tons of HMA}}{\text{year}} \times \frac{\text{tons pollutant}}{2000 \text{ lbs pollutant}}$$

\* For particulate matter the emission limitation = stack emissions + fugitive emissions.

3. The annual production of HMA limitation established to maintain all criteria air pollutant emissions below 99 tons per rolling twelve-month period shall also maintain

emissions of Hazardous Air Pollutants (HAPS) below 10 tons per rolling twelve-month period for each individual HAP and below 25 tons per rolling twelve-month period for all HAPS combined.

4. The air pollution control equipment for this HMA facility shall be operated at all times that the process equipment is operated. Such operation shall be in accordance with all existing permit conditions.
5. The owner or operator of the source shall conduct all necessary maintenance and make all necessary attempts to keep all monitoring equipment for the air pollution control equipment in proper operating condition at all times. The owner or operator of the source shall maintain a log of all significant maintenance activities conducted and all repairs made to the air pollution control equipment. This information shall be kept on file for two years and made available to the Air Quality Division upon request.
6. The monitoring equipment for the air pollution control equipment shall be operated at all times that the process equipment is operated. Such operation shall be in accordance with all permit conditions.
7. For an HMA facility with fabric filter collector as the particulate control device, within 60 days of the permit issuance, at a minimum, the fabric filter collector shall include instrumentation to measure the pressure drop across the fabric filter collector in inches, water gauge.
8. For an HMA facility with a wet collector as the particulate control device, within 60 days of the permit issuance, at a minimum, the wet scrubber shall be equipped with instrumentation to measure the pressure drop across the wet collector or venturi throat in inches, water gauge. Also, instrumentation to measure the water supply pressure to the scrubber manifold in pounds per square inch is required, for which a single pressure gauge installed on the water supply pipe to the scrubber manifold will satisfy this requirement.
9. The owner or operator of the source shall observe and record the following parameters at least once each operating day:
  - A. For fabric filter collectors--the pressure drop across the fabric in inches, water gauge.
  - B. For wet collectors--the pressure drop across the wet collector (venturi throat) in inches, water gauge and the water supply pressure in pounds per square inch.This information shall be kept on file for two years and made available to the Air Quality Division upon request.

10. The owner or operator shall not burn recycled used oil unless prior approval has been obtained from the Air Quality Division. If the existing permit allows the use of recycled fuel oil, the Owner or operator shall not burn any hazardous waste (as defined by federal law), or any recycled used fuel oil containing any contaminant that exceeds the following concentrations:

<u>Contaminant</u>	<u>Maximum Concentration (Parts per million by weight)</u>
Arsenic	5.0
Cadmium	2.0
Chromium	10.0
Lead	100.0
PCBs	1.0
Total Halogens	1000.0

11. If the existing permit allows the use of recycled fuel oil, the applicant shall obtain a copy of the recycled oil analysis from the fuel supplier for each shipment of recycled used oil. The analysis shall include the oil's content of arsenic, cadmium, chromium, lead, PCB's, and total halogens (all in parts per million by weight). The analysis shall report the detection limit for each component analyzed. This information shall be kept on file for two years and made available to the Air Quality Division upon request.
12. The owner or operator of the source shall conduct all necessary maintenance and make all necessary attempts to keep all components of the manufacturing process equipment in proper operating condition at all times. The owner or operator of the source shall maintain a log of all significant maintenance activities conducted and all significant repairs made to the manufacturing process equipment. This information shall be kept on file for two years and made available to the Air Quality Division upon request.
13. If the owner or operator of the source utilizes only one fuel type at the source, or utilizes multiple fuels at the source and elects to maintain the production limit based on the fuel being used that allows the lowest annual production, the owner or operator of the source shall at the end of each calendar month calculate the total Hot Mix Asphalt production for the preceding 12 month period.
14. If the owner or operator of the source utilizes multiple fuels at the source and does not elect to limit HMA production based on the fuel being used allowing the lowest annual production, the owner or operator of the source shall perform the following calculations:
- A. The total combined nitrogen oxides (NOx) from the HMA facility shall not exceed 99 tons per year, based on a 12 month rolling period as determined at the end of each calendar month. The actual NOx emissions from the facility shall be determined and compiled on a monthly basis using the emission factors specified in Table 1

(Attachment B) and the respective amount of HMA produced when each fuel is combusted during each month.

- B. The total combined sulfur dioxide (SO<sub>2</sub>) from the HMA facility shall not exceed 99 tons per year, based on a 12 month rolling period as determined at the end of each calendar month. The actual SO<sub>2</sub> emissions from the facility shall be determined and compiled on a monthly basis using the emission factors specified in Table 1 (Attachment B) and the respective amount of HMA produced when each fuel is combusted during each month.
- C. The total combined carbon monoxide (CO) from the HMA facility shall not exceed 99 tons per year, based on a 12 month rolling period as determined at the end of each calendar month. The actual CO emissions from the facility shall be determined and compiled on a monthly basis using the emission factors specified in Table 1 (Attachment B) and the respective amount of HMA produced when each fuel is combusted during each month.
15. For facilities which are currently permitted to burn recycled used oil and/or No. 4, 5 or 6 fuel oil, the owner or operator of the source shall limit the asphalt mixture to 30% recycled asphalt material (RAP) (tons of RAP used divided by tons of RAP -containing mixes) when utilizing the above named fuels, based on a 12-month rolling average as determined at the end of each calendar month.
16. For facilities which are currently permitted to burn recycled used oil and/or No. 4, 5 or 6 fuel oil, the owner or operator of the source shall determine and compile, at the end of each calendar month for the preceding twelve months, the fuel consumption rate in gallons per ton of HMA produced. This information shall be kept on file for two years and made available to the Air Quality Division upon request.
17. A Daily Production Report shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request. At a minimum, the report shall include the proportions of virgin aggregate and RAP utilized for all mixtures produced on a daily basis at the facility.
18. The owner or operator of the source shall maintain records of the following process data:
- (i) the quantity of RAP used in HMA paving materials each calendar month;
  - (ii) the sulfur content of each load of fuel oil or recycled used oil delivered to the HMA facility;
  - (iii) the fuel usage for fuel oil or recycled used oil used each day that fuel is consumed; and,
  - (iv) all records in accordance with the Quality Control plan if one has been established for recycled used oil.
- This information shall be kept on file for two years and made available to the Air Quality Division upon request.

19. Owner or operator shall calculate the actual emission levels for CO, SO<sub>2</sub>, NO<sub>x</sub>, VOCs, PM, and Lead from the HMA facility based on the most recent calendar year. If stack test results for the permitted HMA facility exist for any of the above-named pollutants, than stack test results may be used to estimate pollutant emissions subject to the approval of the Air Quality Division. In the event that stack test results do not exist for a specific pollutant, the applicable emission factor listed in Table 1 (Attachment B) shall be used to estimate the pollutant's emissions from the HMA facility.
20. Owner or operator shall calculate the fugitive dust emissions based on the most recent calendar year. The fugitive dust emissions of particulate matter shall be calculated using the current Environmental Protection Agency's Compilation of Air Pollutant Emission Factors (AP-42).
21. The actual emission levels for the pollutants specified in SC #19 and SC #20 shall be reported to the Air Quality Division through the annual emission reporting required under section 5503(k) of the Natural Resources and Environmental Protection Act.



## ATTACHMENT B

### TABLE 1

<b>Pollutant</b>	<b>lb./ton of HMA produced using Natural Gas</b>
PM, Baghouse	0.0400
PM, Scrubber	0.0520
Oxides of Sulfur, virgin mixes	0.0042
Oxides of Sulfur, RAP mixes	0.0042
Oxides of Nitrogen	0.0275
Carbon Monoxide	0.1980
NMTHC as Carbon (VOC)	0.0340
Lead	2.02 E-6
<b>Pollutant</b>	<b>lb./ton of HMA produced using Liquid Petroleum Gas</b>
PM, Baghouse	0.0400
PM, Scrubber	0.0520
Oxides of Sulfur, virgin mixes	0.0000
Oxides of Sulfur, RAP mixes	0.0000
Oxides of Nitrogen	0.0400
Carbon Monoxide	0.1980
NMTHC as Carbon (VOC)	0.0340
Lead	2.02 E-6
<b>Pollutant</b>	<b>lb./ton of HMA produced using No. 2 Fuel Oil</b>
PM, Baghouse	0.0400
PM, Scrubber	0.0520
Oxides of Sulfur, virgin mixes	0.0560
Oxides of Sulfur, RAP mixes	0.0560
Oxides of Nitrogen	0.1225
Carbon Monoxide	0.0525
NMTHC as Carbon (VOC)	0.0575
Lead	2.02 E-6
<b>Pollutant</b>	<b>lb./ton of HMA produced using No. 4, 5, 6 Fuel Oil and Recycled Used Oil</b>
PM, Baghouse	0.0400
PM, Scrubber	0.0520
Oxides of Sulfur, virgin mixes	$0.0397 \times F \times S^1$
Oxides of Sulfur, RAP mixes <sup>2</sup>	$0.0828 \times F \times S^1$
Oxides of Nitrogen	0.1225
Carbon Monoxide	0.2010
NMTHC as Carbon (VOC)	0.0575
Lead	2.02 E-6

<sup>1</sup> F = fuel consumption, gallons/ton HMA produced

S = sulfur content in fuel, %

<sup>2</sup> This emission factor is valid only for annual average RAP contents up to 30%, calculated as follows:

Annual Average RAP % = Tons of RAP consumed per year / Tons of HMA containing RAP produced/year x 100%