Michigan Department of Environmental Quality
Air Quality Division
Hollister Building, P.O. Box 30260
Lansing, Michigan 48909-7760

PERMIT TO INSTALL APPLICANT:

A permit to install is required to install, construct, reconstruct, relocate, alter, or modify any process or process equipment, including control equipment pertaining thereto, which may emit an air contaminant (R 336.1201). A "process" is an action, operation, or a series of actions or operations at a source that emits or has the potential to emit an air contaminant. "Process equipment" is all equipment, devices, and auxiliary components, including air pollution control equipment, stacks, and other emission points, used in a process. "Air pollution control equipment" is any method, process, or equipment that removes, reduces, or renders less noxious air contaminants discharged into the atmosphere.

One permit to install application may be submitted for one or more interrelated processes at a source. Permit to install applications for large or complex sources, or substantial modifications to existing sources, should be discussed with the Permit Section well in advance of submitting an application.

An administratively complete application for a permit to install must include reasonable responses to all requests for information on the front of the application form (EQP 5615), as well as the information requested in the instructions on the back of the application form. Please follow the instructions carefully. Failure to do so may result in your submittal being returned to you or in a delay in processing your application. All applications for permits to install, including applications to modify the terms and conditions of an existing permit to install, must include a completed application form. Any additional detailed information which will not fit in the spaces provided on the application form should be enclosed and submitted with the application form.

This document is designed to clarify the information requirements for an administratively complete application for a permit to install. The information described in this document is not intended to be all inclusive. The requirements for an administratively complete application for a permit to install are designed to provide enough information for a permit reviewer to begin a technical review. Additional information beyond that identified may be required to complete the technical review of any individual application. The specific requirements of the federal Prevention of Significant Deterioration and Nonattainment New Source Review programs are NOT addressed in this document.

CONFIDENTIAL INFORMATION: Information included in a permit to install application cannot be claimed confidential, EXCEPT for trade secrets or commercial or financial information pursuant to Section 13(1) of the Freedom of Information Act, 1976 P.A. 442, as amended. Section 5516 of Article II, Chapter 1, Part 55 of the Michigan Natural Resources and Environmental Protection Act, 1994 P.A. 451 states that any information regarding the quantity, composition or quality of the emissions from a source CANNOT be held confidential.

If you have any questions, please contact the Permit Section at the address above or call us at (517) 373-7023. This information is also available on the Internet. The Air Quality Home Page is located at *http://www.deq.state.mi.us/aqd/*. Questions and requests for pre-application meetings can also be directed to the DEQ, Environmental Assistance Division, Clean Air Assistance Program at (800) 662-9278.

Michigan Department of Environmental Quality
Air Quality Division

INFORMATION REQUIRED FOR AN ADMINISTRATIVELY COMPLETE PERMIT TO INSTALL APPLICATION ASSEMBLY INSTRUCTIONS AND GENERAL INFORMATION REQUIREMENTS

You must provide three (3) copies of the Department's application form (EQP 5615) and two (2) copies of any additional information submitted with the application form. APPLICATIONS CAN NOT BE ACCEPTED VIA FACSIMILE. The application forms and the originals of all additional information must be sent to Lansing. You may choose to send the copy of the additional information with the original, or you may send it directly to the appropriate District Office. If you send the copy to the District Office, you should clearly indicate this on the application form or in a cover letter. A map showing District boundary lines and list of the District Office addresses and telephone numbers is available on the Air Quality Division Internet Home Page (URL: http://www.deq.state.mi.us/aqd) or by contacting the Permit Section.

This document is designed to supplement and provide a detailed description of the information requested on the back of the application form. A list of other documents that clarify the additional information requirements for specific processes, process equipment and air pollution control equipment is provided at the end of this document.

PART 1 - INSTRUCTIONS FOR COMPLETING THE APPLICATION FORM

Fill out all numbered items (1 through 10) completely, as described below.

Item No. 1 (Applicant) - The applicant should be the entity (e.g., corporation, partnership, individual owner, or government agency) that actually owns and/or is responsible for the operation of the process or process equipment. Consulting or other firms ("Authorized Agents" - see Item No. 10 below) cannot apply for a permit to install "on behalf of" another entity.

Item No. 2 (Applicant Address) - This is the address where you would like to receive correspondence regarding your application.

Item No. 3 (Equipment or Process Location) - This item need only be completed if the process location is different from the Applicant Address in Item No. 2 or if that address is a P.O. Box.

Item No. 4 (General Nature of Business) - Briefly describe your business consistent with the SIC Code provided in Item No. 6.

Item No. 5 (Equipment or Process Description) - If the process description is lengthy, or specifics may be considered confidential, a brief, general description is acceptable under this item. A

detailed description should be included as part of the application package. DO NOT INDICATE "SEE ATTACHED" FOR THIS ITEM. YOU MUST PROVIDE AT LEAST A BRIEF DESCRIPTION OR YOUR SUBMITTAL WILL BE RETURNED TO YOU.

Item No. 6 (Facility Codes) - Your source's Standard Industrial Classification (SIC) Code and Site Registration Number (SRN) can be determined from the Emission Inventory Reporting forms that you submit annually to the AQD. If your application is for a new facility or if you have not had previous business with the AQD you will not have an SRN. In that case, an SRN will be assigned during the technical review of your application. A document listing the SIC Codes for various common source categories is available by contacting the Permit Section.

Item No. 7 (Action and Timing) - This item asks for the dates when installation, construction, reconstruction, or alteration; relocation; or change of ownership will be started and completed. Select only the items that apply. Note that these dates can be "estimated". You should be aware that if no dates are provided it will be assumed that the process is already installed and operating.

Item No. 8 (Name of Prior Owner) - This item helps the AQD to keep track of prior owners and permits to install for the same equipment. If there are none, please indicate this on the form.

Item No. 9 (Signature area) - Be sure the application is signed by an authorized employee of the applicant listed under Item No. 1. This signature certifies the truth of the information provided in the application. Please provide a telephone number for the individual signing the application. AUTHORIZED AGENTS CANNOT SIGN THE APPLICATION FORM (see also Item No. 10).

Item No. 10 (Contact Person) - If you are listing a contact person under Item No. 10 who is not employed directly by the applicant, such as an attorney or a consultant, a letter of authorization must be provided pursuant to Rule 204 of the Department's rules. The letter should identify those individuals and/or firms that are expected to directly communicate with and/or provide information to the Department. Authorizations for several individuals and/or firms may be provided separately or may be combined into one letter. Any authorization letter(s) should immediately follow the application form in the application package. FAILURE TO PROVIDE AN AUTHORIZATION LETTER, IF REQUIRED, WILL RESULT IN YOUR SUBMITTAL BEING RETURNED TO YOU.

PART 2 - INSTRUCTIONS FOR ADDITIONAL SUPPORTING INFORMATION

The additional information submitted as a part of a permit to install application package should be organized into sections and assembled in the following order. Each section of the package should be clearly identified.

A. Process Description

In addition to the general process description which must be included in Item No. 5 on the front of the application form, include a detailed description of each piece of process equipment included in the permit to install application. This detailed description should include all of the following information:

1. Provide the size and type along with the make and model (if known) of each piece of proposed process equipment, including any air pollution control equipment. Manufacturer's literature for the process equipment may be helpful in providing this information.

2. Provide details of the type and feed rate of each material used in or produced by the process (including intermediate products if appropriate), in pounds per hour or similar measure.

3. For fuel burning processes provide the following information related to the fuel burning device(s): make, model, size, type, number of devices and capacity range (from minimum to maximum) of each device. For gaseous fuels provide the following information: type (for gaseous fuels other than sweet natural gas or propane, include an ultimate analysis), and maximum cubic feet per hour. For fuel oil provide the following information: fuel oil grade, (for liquid fuels other than virgin fuel oil, include an ultimate analysis), maximum gallons per hour, sulfur content, and temperature to which oil is preheated (if applicable). For solid fuels provide the following information: type, ultimate analysis and maximum pounds per hour.

4. Provide the normal and maximum operating schedule for the process and/or each vent/stack, in hours per day, days per week, and weeks per year. For batch processes provide the length of time per batch and the frequency of the batch operation in batches per day and batches per month. Note that if the emissions allowed by the permit to install are based on an operating schedule less than 24 hours per day, 7 days per week and 52 weeks per year, then that reduced operating schedule may be included as an enforceable condition of the permit to install.

5. Provide a brief description of any waste generated by the process or the air pollution control equipment and the proposed method of reuse, treatment, or disposal of that waste.

6. If the application is for complex or multiple processes, include a block diagram that shows the flow of materials, including any intermediate and final products.

B. Regulatory Discussion

Describe all federal, state, and local air pollution control regulations that you believe are applicable to the proposed process. Include a discussion of how you believe the proposed process complies with each of these regulations.

C. Control Technology Analysis

Describe how the air contaminant emissions from the proposed process equipment will be controlled or otherwise minimized. "Air pollution control equipment" is any method, process, or equipment that removes, reduces, or renders less noxious air contaminants discharged into the atmosphere. This definition includes pollution prevention or other methods which result in reduced emissions from the process. Provide sufficient detail to determine the extent to which the air pollution control equipment will be used to control emissions from the other process equipment listed in this application and to determine the control efficiency of the air pollution control equipment. The information needed to show the control efficiency of the air pollution control equipment may include process-specific calculations (e.g., calculation of the particulate emission control efficiency may depend on the particle size distribution of the exhaust gas being controlled). If applicable, you must also include a description of any proposed air pollution control equipment bypass. Generally, inputs to the process must cease immediately in the event of a bypass of the air pollution control equipment, except as provided by Rules 913 and 914 (R 336.1913 and R 336.1914.

For applicable air pollution control regulations that require a control technology determination (e.g., Best Available Control Technology (BACT), BACT for toxics (T-BACT) or Lowest Achievable Emission Rate (LAER)), include a summary of all the air pollution control equipment you investigated in addition to the selected equipment described above. This discussion should also include the reasons for rejecting any air pollution control equipment with a control efficiency greater than or equal to the selected control equipment.

Separate documents containing step-by-step instructions for completing BACT and T-BACT analyses are also available by contacting the Permit Section.

D. Emissions Summary and Calculations

Explain clearly and in appropriate detail the nature, quantity (both controlled and uncontrolled), concentration, particle size, pressure, temperature, and any other pertinent characteristics of all air contaminants, including all toxic air contaminants, which may be discharged to the atmosphere. This explanation should include all of the following information:

1. A summary table of the proposed controlled and uncontrolled emissions of all air contaminants from all processes included in the application. For modifications to existing processes, this summary table should address the proposed changes in emissions which would

result from the modification. The summary table should list the emissions of each pollutant in pounds per hour, tons per month, and any other units specified in any federal, state, or local air pollution control regulations which you identified as applicable to this process in the Regulatory Discussion described in Part II, Section B of this document. Attach a copy of all calculations used to determine these emission rates and describe any assumptions that were made. For repetitive calculations, a sample calculation may be provided.

2. A summary table of the proposed controlled and uncontrolled emissions of all air contaminants from each vent/stack included in the application. List each toxic air contaminant individually, including the Chemical Abstract Service (CAS) number, and provide maximum pounds per hour, stack concentration in micrograms per cubic meter (ug/m^3), and predicted ambient impact in ug/m^3. Specify the method(s) used to determine the predicted ambient impact. For some applications, detailed emissions by vent/stack may be unnecessary or inappropriate. In that case, the information on toxic air contaminants specified in this item should be provided under item D. 1. above.

<u>The maximum controlled emission rates for the process will be reflected in legally enforceable permit conditions. Therefore, all emission estimates should provide a reasonable margin of safety to ensure that the process can operate within those limits.</u>

E. Stack/Vent Parameters

For each vent/stack include all of the following information (including possible ranges if appropriate):

1. The height of the stack/vent above ground level at the discharge point (in feet).

2. The internal diameter or dimensions of the stack/vent at the discharge point (in inches).

3. The orientation of the stack/vent discharge (i.e., vertical, horizontal, etc.).

4. The volume flow rate of the exhaust gas in cubic feet per minute (cfm). Please note whether the flow rate is based on actual or standard cfm.

5. The approximate temperature of the exhaust gas at the discharge point (in degrees Fahrenheit).

6. A description of any rain protection device.

7. If the stack/vent is to be equipped with stack testing ports, a description of the size and location of such ports.

8. Source Classification Code(s) and Control Equipment Codes for the process/equipment associated with each stack. Documents which describe the Source Classification Codes and Control Equipment Codes are also available by contacting the Permit Section.

Exhaust gases should be discharged unobstructed vertically upwards to maximize dispersion of air contaminants. In addition, a stack height design of at least 1.5 times the building height above the ground will minimize the potential for emission downwash problems.

F. Site Description and Process Equipment Location Drawings

Provide scale drawings that show a plan view of the owner's property to the boundary lines. A scaled site plan does not necessarily mean construction drawings or blueprints. A site plan should include all of the following information:

1. The outline and dimensions (length, width, and height at roof peak and eaves), in feet, of all buildings and structures on the owner's property and any other buildings or structures within either of the following:

   - Within 150 feet of any process stack/vent proposed or identified in the application, or

   - Within a distance of 5 times the height of that building or structure to any stack/vent identified or proposed in the application (e.g., the dimensions of a building with a height of 50 feet would have to be included on the site plan if it is within 250 feet (5 x 50) of a stack/vent proposed or identified in the application).

2. Show all property lines and any fence lines.

3. Locate and identify the process equipment proposed to be installed or modified in the application.

4. Show the location of all stacks/vents identified in Section E. and indicate the distance to the nearest property line.

5. Indicate the direction of North and provide sufficient detail to enable the permit reviewer to accurately orient the site to the surrounding area.

6. Indicate the scale of the plan (e.g., 1 inch = 100 feet).

G. Additional Supporting Information for Specific Processes and Equipment

In addition to this document, other documents that clarify the additional information requirements for the following specific processes, process equipment and control equipment and that provide guidance on control technology review requirements are also available by contacting the Permit Section.

Processes/Process Equipment

Anhydrous Ammonia Storage
Asphalt Plants
Boilers
Chemical/Pharmaceutical Processes
Coating Operations
Concrete Plants
Crushers (Concrete, Asphalt, Rock)
Degreasers
Gas Turbines
Incinerators - General Refuse
Incinerators - Medical Waste
Material Handling Operations
Municipal Waste-to-Energy Facilities
Natural Gas Sweetening Facilities
Remediation Operations - Groundwater
Remediation Operations - Soil
Sour Oil and Gas Well Equipment
Storage Tanks - General
Waste Oil Firing Equipment
Welding Operations

Air Pollution Control Equipment

Afterburners
Condensers
Electrostatic Precipitators
Fabric Filters (baghouse, cartridge)
Scrubbers

Control Technology Reviews

Best Available Control Technology (BACT)
Best Available Control Technology for Toxics (T-BACT)