Wastewater Permit-to-Install Applications – Tips for When Timing is Critical

Prior to beginning construction, a permit-to-install (PTI) must be obtained from Ohio EPA for almost all new or expanded and many modified wastewater projects. Ohio EPA realizes it is important to review and act on these applications very quickly when financial assistance or other deadlines are approaching.

Ohio EPA issues a PTI following its review and approval of detailed engineering plans. Ohio law and rules Ohio Revised Code (ORC) 6111.44 and 6111.45; Ohio Administrative Code (OAC) Chapter 3745-42 and Agency guidance specify the information that must be provided in those engineering plans.

Sufficient details are necessary to determine if the project will be able to comply with the required effluent limitations; prevent or interfere with attainment of water quality standards; result in the violation of any applicable laws; and/or use best available technology. The following information is provided to help clarify when permits are needed, and what information must be included in a PTI application to ensure a prompt and thorough review.

Examples of Projects Where PTIs Are Not Required

A wastewater PTI is not required for the following:

- Sewer replacement projects of up to 1,000 feet per project as long as all of the following hold true:
  - there are no changes in pipe size;
  - there are no additional manholes;
  - there are no significant changes in elevation;
  - there are no lateral shifts more than 20 feet or that will not maintain a 10-foot separation from water lines, and
  - the sewer is not in a stream bed and will not be shifting into a stream bed.

- Sewer replacement projects of up to 1,000 feet per project where the only change is the pipe material and the new material is on Ohio EPA’s accepted pipe specification list.

- Replacement piping within a wastewater treatment plant as long as flow through the plant is not significantly altered. (As an example, piping installed to bypass a unit would need a PTI.)

- Insitu sewer repairs such as sliplining.

- Remodeling or replacement of buildings or laboratories at a wastewater treatment plant.

Also, the following are already exempt from the water pollution control PTI requirement in OAC 3745-42-02:

- Building sewers with no pumps or other appurtenances. A manhole on the building sewer also does not need a PTI if it is upstream of a collector sewer, has no more than one influent pipe and does not house any equipment, such as a pump.

- Replacing existing equipment with equipment of equal size, capacity and performance. In this case, equipment does NOT mean process units like clarifiers, aeration basins, sand filters, etc.

- Certain small industrial treatment systems that discharge to a sanitary sewer as outlined in the rule.

- Many storm water construction activities (see rule for more details).

- Certain oil and grease interceptors as outlined in the rule.

In other situations where it is not clear if a PTI is necessary under the rules or statute, Ohio EPA will make every effort to respond quickly to inquiries.
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PTI Application Processing Goals
Ohio EPA will take the following actions to ensure timely review and action on PTI applications for wastewater projects:

- Applications will be briefly reviewed for administrative completeness as quickly as possible, and logged into a statewide PTI database.
- The Division of Surface Water’s goal for issuing a decision on the application is 35 Agency days. This does not include the days that Ohio EPA is waiting for the applicant or consultant to submit requested information or revisions.
- The General PTI for gravity sanitary sewer extensions of 8 inches to 12 inches in diameter will be available to those projects that are eligible for it (see permit for details), and applications will generally be processed within 35 calendar days.
- E-mail communication is encouraged as a method of correspondence to speed up the process. Please keep in mind, however, that if revised drawings are needed, four hard copies of those must be sent to Ohio EPA with the appropriate engineer’s stamp, signature and date, and all other authorizing signatures as appropriate. If Ohio EPA knows a deadline is looming, for financing for instance, then its e-mails or letters will request a response by a certain deadline. This notification may include a reminder that in order to get the funding, consultants and applicants share the burden of acting quickly to keep these projects moving.

Minimum PTI Application Information Required
For the purpose of Ohio EPA's review to protect human health and the environment, engineering plans may not have to be 100 percent complete and ready for construction when submitted for the PTI application as long as the following minimum information is provided:

1) The information listed in OAC 3745-42-03(A), (B) and (E) applicable to the project. (Please note this includes a professional engineer’s stamp, signature and date, and for sewer extensions and some other projects will include either signed plans or a letter of support from the sewer authority).

2) In general, provide the information necessary to determine consistency with Ten States Standards and/or the Ohio EPA Greenbook. Applications must include the basic design criteria and explanations for the project such as flows, loads, criteria used to design units, site information (such as geologic conditions, flood elevations, etc.), and impact on existing systems if appropriate. If the project will result in a new or expanded discharge, submit a wastewater discharge (National Pollutant Discharge Elimination System [NPDES]) permit application before or with the PTI application.

3) Detail plans must contain a site plan, plan views, elevations, sections and supplementary views which, together with the specifications and general layouts, provide the working information for the construction and operation of the treatment plant. They must also include dimensions, the location and outline form of the equipment, location and size of piping, water levels and ground elevations. Locations and general information about other existing and proposed utilities, especially related to water supply and storm water, must be included on the plans to demonstrate sufficient isolation distances.

4) Specifications must include sufficient information to inform Ohio EPA and the builder of design details related to the construction and operation of the treatment system. For sewer extensions and simpler projects, specifications are encouraged to be included on the detail plans rather than a separate document. These should include details regarding:
   a) ASTM specifications for piping;
   b) Type, size, strength, operating characteristics and rating of equipment;
   c) Requirements for mechanical and electrical equipment including machinery, valves, piping, joints of pipe;
   d) Electrical apparatus and wiring directly related to the operation of the treatment system, instrumentation and meters;
   e) Construction materials;
   f) Chemicals when used in the treatment process;
   g) Instructions for testing materials and equipment; and
   h) Performance tests for the completed works and component units.
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5) Information about items that are not directly related to the function of the plant can be more general, or multiple options can be provided in the PTI application so that final choices can be made later. These would include, but not be limited to:
   a) Laboratory fixtures and equipment;
   b) Buildings to house a filter or other parts of the plant (while details on the filter or blowers or what is inside the building are necessary, size and placement is sufficient for the building itself);
   c) Standby equipment – except for critical items like influent and effluent pumps;
   d) Safety features like rails, fencing, grates, etc.;
   e) HVAC systems information;
   f) Architectural features such as doors, windows, finishes, furniture;
   g) Fire protection for the buildings;
   h) Electrical plans for lighting or other equipment not directly related to the function of the treatment plant.

Phasing Projects
Phasing of some parts of the project is acceptable if they are not directly related to the performance of the treatment train (i.e., effluent quality). For example, general descriptions with performance criteria and sizing for sludge treatment/disposal units and an estimated schedule for construction may be sufficient to get initial approval of the main treatment plant (e.g., influent pumping, screening, grit removal, biological treatment, clarification, disinfection and post aeration if needed), as long as detail plans for those processes are approved before construction begins on those units. These could include:
   • Sludge storage facilities if they are stand-alone units;
   • Sludge drying beds;
   • Sludge presses; and
   • Sludge digesters or treatment tanks if stand-alone units.

Phasing for unsewered communities is also an option if it provides a benefit to the community. For instance, a PTI could be obtained for the treatment plant by providing the normal level of design details on the main treatment units, but more general information on the sludge handling and/or sewers (size/length, general locations). The approval of the treatment plant would contain a condition that the detail plans for the remainder of the project be submitted within a set, reasonable time frame. Detail plan approval on the sewers and sludge or other ancillary items could be issued after approval is granted for the main treatment plant. Keep in mind that the treatment plant design and approval must come BEFORE the sewers.

Carefully evaluate the option of phasing as permit fees will be higher, and there is no guarantee future parts of the project will meet the necessary deadlines to obtain funding. In many cases, it will be better to get the entire facility designed as one project and funded as one project.

Projects Subject to Antidegradation
The applicant or engineer needs to determine if the antidegradation rule (Rule 3745-1-05 of the OAC) applies to the proposed project. If so, the Antidegradation Addendum, Stream Evaluation, and/or additional justification for allowing the degradation must be provided. Ohio EPA strongly encourages applicants to contact the district office or Division of Environmental and Financial Assistance for assistance prior to submitting the PTI application.

Projects Involving Water Pollution Control Loan Funds (WPCLF)
For a WPCLF-funded project, sufficient details are necessary to establish that:
   1) information in the permit application is consistent with the recommendation of the previously submitted facilities planning information for this project;
   2) the specifications document meets the bidding and contacting requirements of the program; and
   3) the design is specific enough that it minimizes the possibility of numerous change orders and possible disputes during the construction phase.

Phasing of projects needs to be consistent with the phases recommended in the facilities planning for the project. Approval of one phase does not assure approval of subsequent phases. Because these projects are often larger, more complex and require additional information to be submitted, failure to submit adequate information as outlined above will likely result in longer time frames for Ohio EPA to act on the PTI application.
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Contact Information
For more information, please contact the Division of Surface Water in the district office where your project is located, or the Division of Environmental and Financial Assistance at (614) 644-2798 for projects where financial assistance is being sought.

Division of Environmental and Financial Assistance
50 W. Town Street, Suite 700
Columbus, Ohio 43215
(614) 644-2798
(614) 644-3687 (fax)

Division of Surface Water

Central District Office
50 W. Town Street, Suite 700
Columbus, OH 43215
(614) 728-3778
(614) 728-3898 FAX

Northeast District Office
2110 E. Aurora Road
Twinsburg, OH 44087
(330) 963-1200
(330) 487-0769 FAX

Southeast District Office
2195 Front Street
Logan, OH 43138
(740) 385-8501
(740) 385-6490 FAX

Northwest District Office
347 N. Dunbridge Road
Bowling Green, OH 43402
(419) 352-8461
(419) 352-8468 FAX

Southwest District Office
401 E. Fifth Street
Dayton, OH 45402-2911
(937) 285-6357
(937) 285-6249 FAX