The NPDES Permit Application Process

1. NPDES Permit Writers' Course Online Training Curriculum

1.1 The NPDES Permit Application Process



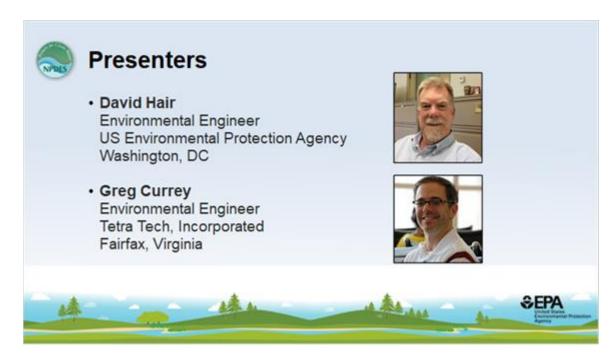
Notes:

Welcome to this overview of the National Pollutant Discharge Elimination System, or NPDES, permit application process. This presentation is part of an online training series on the NPDES program sponsored by the Environmental Protection Agency's Water Permits Division.

You can view this as a stand-alone presentation, or you might be interested in the entire series.

Before we get started with this presentation, I'll make some introductions and cover one important housekeeping item.

1.2 Presenters



Notes:

Your speakers for this presentation are David Hair, an environmental engineer with the Water Permits Division of USEPA in Washington, DC, and me, Greg Currey, an environmental engineer with Tetra Tech, Incorporated in Fairfax, Virginia.

As far as that housekeeping item goes, I need to tell you that all the materials used in this presentation have been reviewed by USEPA staff for technical accuracy; however, the views of the speakers are their own and do not necessarily reflect those of USEPA. NPDES permitting is governed by the existing requirements of the Clean Water Act and USEPA's NPDES implementing regulations. These statutory and regulatory provisions contain legally binding requirements. The information in this presentation is not binding. Furthermore, it supplements, and does not modify, existing USEPA policy, guidance, and training on NPDES permitting. USEPA may change the contents of this presentation in the future.

1.3 Who Must Apply for an NPDES Permit?



Notes:

Thanks, Greg.

This presentation covers the basics of the process that a facility would follow to obtain coverage under an NPDES permit.

As we walk through this process, the first question that you might ask is "Who has to apply for an NPDES permit?"

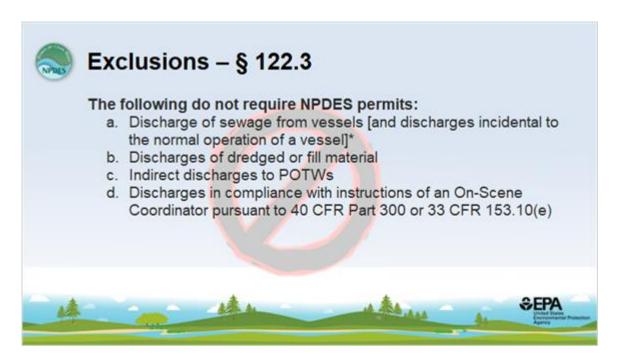
Well, the answer lies in the NPDES regulations at 40 CFR 122.21(a). This regulation establishes that there is a duty to apply for any "person" who discharges or proposes to discharge pollutants to waters of the United States, and for facilities that generate or process sewage sludge. As we noted in another presentation in this series, the discharge of pollutants from a point source to a water of the US is illegal in the absence of an NPDES permit, so it makes sense that anyone proposing to do so would first have to apply for permission. As with any good regulation, there are some exceptions and exclusions to this requirement that we'll talk about in just a moment.

In most cases the person that must apply is the owner of the facility or activity that needs permit coverage; however, the regulation at 40 CFR 122.21(b) establishes that when a facility or activity is owned by one person but operated by another person (for example, one company hires another company to operate its wastewater treatment facility), it's the operator that is responsible for applying for the permit.

The regulations are also very specific regarding the appropriate person to "sign on the dotted line" of the permit application. 40 CFR 122.22 requires that, for a corporation, the application must be signed by the president, vice president, secretary, treasurer, responsible corporate officer, or the manager of one or more facilities if the manager meets certain criteria. For a partnership or sole proprietorship, the signatory must be a general partner or

the proprietor, and for a public agency, the signatory must be a principal executive officer, such as a city manager, or a ranking elected official, such as the mayor.

1.4 Exclusions - § 122.3



Notes:

Now for those exclusions that I mentioned.

40 CFR 122.21(a) indicates that applications are not required for facilities specifically excluded under 40 CFR 122.3. The categories of discharge excluded under 40 CFR 122.3 are listed on this slide and the next.

Item "a," as written, excludes from NPDES permit requirements the discharge of sewage from vessels and discharges incidental to the normal operation of a vessel; however, notice the asterisk and brackets we've added. Those are there because a decision by the U.S. District Court for the Northern District of California vacated portions of this exclusion and required certain types of vessel discharges to be covered by NPDES permits. The specifics of which vessel discharges are and are not covered is a bit too complicated to address in this introductory presentation, so if you have additional questions, please refer to the "Vessels" Web page on EPA's NPDES Web site.

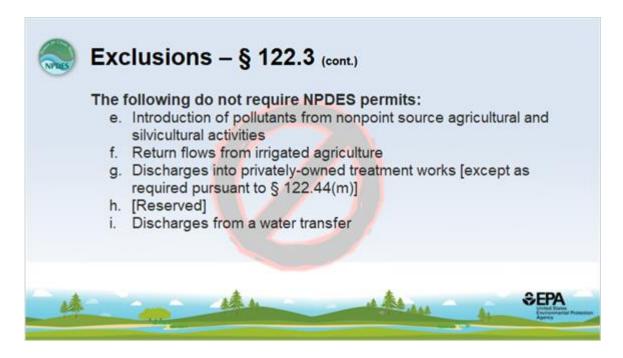
Item "b" on the list excludes discharges of dredged or fill material. These types of discharges don't need NPDES permit coverage, because they're covered by a different program established under section 404 of the Clean Water Act which, in most cases, is administered by the US Army Corps of Engineers.

Item "c" excludes indirect discharges to publicly-owned treatment works, or POTWs, from NPDES permit application requirements. This is because indirect discharges enter a sanitary sewer and are mixed with domestic sewage and

treated by the POTW prior to entering waters of the U.S. These types of discharges are subject to the requirements of the national pretreatment program, which are established in 40 CFR Part 403.

Item "d" excludes discharges in compliance with the instructions of an on-scene coordinator when there is an oil or hazardous substance clean-up. These types of discharges are controlled under requirements of the National Oil and Hazardous Substances Pollution Contingency Plan.

1.5 Exclusions – § 122.3 (cont.)



Notes:

Item "e" deals with non-point source agricultural and silvicultural stormwater runoff. These types of discharge are specifically excluded from the definition of a "point source" and are, therefore, not required to obtain NPDES permit coverage. We should note here, that some types of silvicultural operations, such as log sorting and storage and agricultural discharges from concentrated animal feeding operations, or CAFOs, are considered point sources, and are not covered by this exclusion.

Item "f" excludes return flows from irrigated agriculture, which is also specifically excluded from the definition of a point source.

Item "g" excludes discharges into privately-owned treatment works, such as a centralized waste treatment facility operated by an industrial park, unless the permitting authority determines that it's necessary to require the individual discharges to the system to obtain their own NPDES permits.

Item "h" formerly included an exclusion for direct application of pesticides to waters of the U.S., however, this

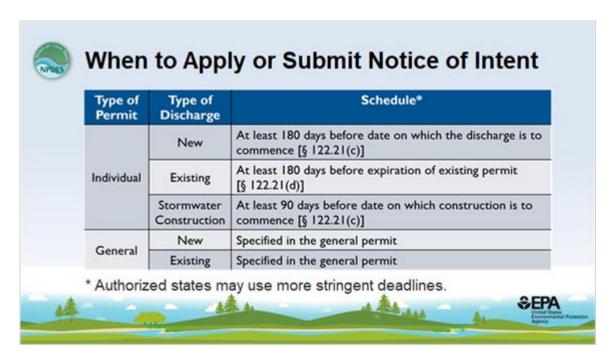
exclusion was recently removed based on a court decision.

Lastly, item "i" excludes discharges from a water transfer. The regulation defines a water transfer as an activity that conveys or connects waters of the United States without subjecting the transferred water to an intervening industrial, municipal, or commercial use. This exclusion does not apply to pollutants introduced by the water transfer activity itself to the water being transferred.

It's worth mentioning as well that the regulations at 122.21(a) indicate that applications are not required for persons covered or seeking coverage under an NPDES general permit. Facilities seeking coverage under general permits typically submit a Notice of Intent, or NOI, which we'll talk about a bit later in this presentation.

OK, enough about the exclusions from NPDES application requirements, let's get back to the folks that are required to apply for NPDES permits.

1.6 When to Apply or Submit Notice of Intent



Notes:

Having established who is and isn't required to apply for permit coverage, the next question is "When does a facility need to apply?"

For a new discharger (in other words, any facility that does not currently hold an NPDES permit authorizing a discharge), the facility is required to submit a complete application at least 180 days prior to the date on which it wishes to commence discharge. Effectively, this provides the permitting authority 180 days (approximately 6 months) to draft and issue the NPDES permit based on the information provided by the applicant. Of course, the

facility cannot commence its discharge until a final permit is issued and effective, so it's in the facility's best interest to complete the application as far as possible in advance of its planned start-up date to ensure that the permitting authority has plenty of time to develop and issue the permit.

For facilities that are already covered by an NPDES permit, there is a duty to provide an application for renewal of the NPDES permit at least 180 days prior to the expiration date of the existing permit. Again, this is a minimum timeframe, and it's always a good idea to get the application in early, in case the permitting authority needs to gather additional information prior to permit reissuance.

For construction stormwater, discharges seeking coverage under an individual NPDES permit, a rather uncommon occurrence, the timing is a bit different. The regulations at 122.21(c) require these types of discharges to apply for permit coverage at least 90 days in advance of the commencement of construction.

We should note here, that these are federal requirements, and that states authorized to administer the NPDES program can have more stringent deadlines than the 180-day window specified in the federal regulations.

For facilities covered by or seeking coverage under NPDES general permits, the deadline for submission of the Notice of Intent should be specified in the permit for both new and existing discharges. The general permit should also describe when and how coverage under the permit will be granted in relation to the date on which the Notice of Intent is received.

1.7 How to Apply for a Individual Permit



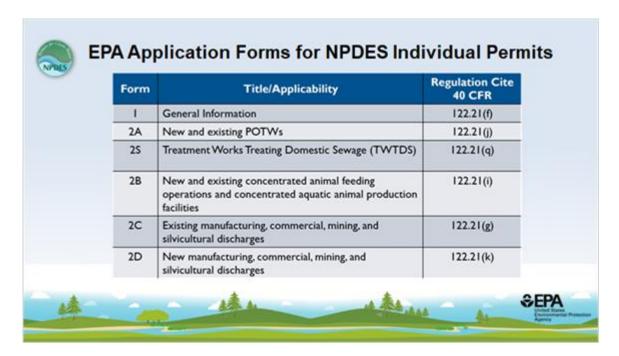
Notes:

We've covered who applies and when to apply. Now, let's look at how to apply for an NPDES permit.

For facilities seeking coverage under an individual NPDES permit, the regulations at 40 CFR 122.21(a)(2) require applicants to use specific application forms based on the nature of the facility and its discharge. The specific information that must be provided by applicants is specified in the regulations in 40 CFR 122.21 paragraphs (g) through (r). We'll discuss several of these forms on the next few slides.

It's also important to note that states authorized to implement the NPDES program may use either EPA's forms or their own state permit application forms, as long as the state forms, at a minimum, require the same information identified in the NPDES regulations. States may also choose to use EPA application forms to collect the federally required information, and then require additional state-specific data on supplemental forms.

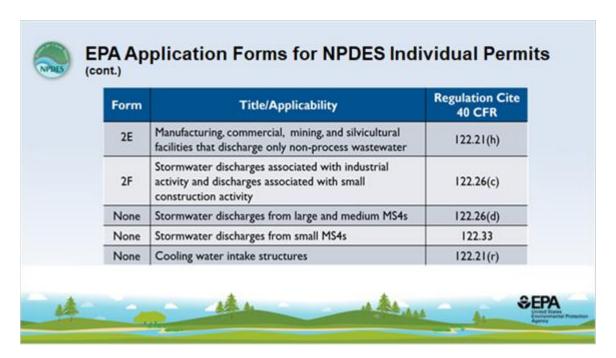
1.8 EPA Application Forms for NPDES Individual Permits



Notes:

The next two slides list EPA's application form numbers, the type of facility or discharge to which the form applies, and the regulatory citation for the application requirements. As you can see, EPA Form 1 requires general information, and Forms 2A...

1.9 EPA Application Forms for NPDES Individual Permits (cont.)



Notes:

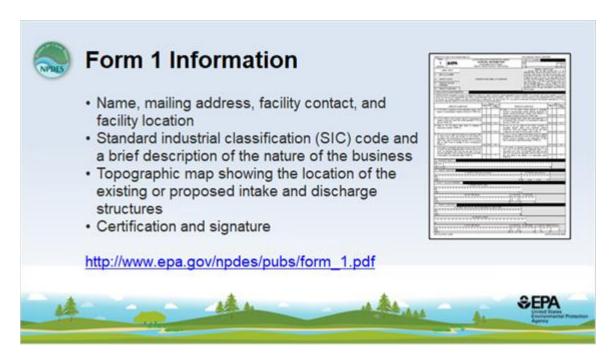
...through 2F on our list require specific data based on the nature of the facility or discharge.

Notice also that there are no specific application forms for municipal separate storm sewer systems (or MS4s) or for cooling water intake structures. This doesn't mean that these categories of discharger don't have application requirements. In fact, there are extensive application requirements outlined in the regulations. The slide simply indicates that there isn't an EPA form on which to provide the information.

On the next few slides we'll take a look at several of the more common EPA forms and discuss the types of data that applicants must provide.

Greg, why don't you take it from here?

1.10 Form 1 Information



Notes:

We're going to briefly review three application forms that a permit writer is likely to see most often: Form 1, Form 2A, and Form 2C.

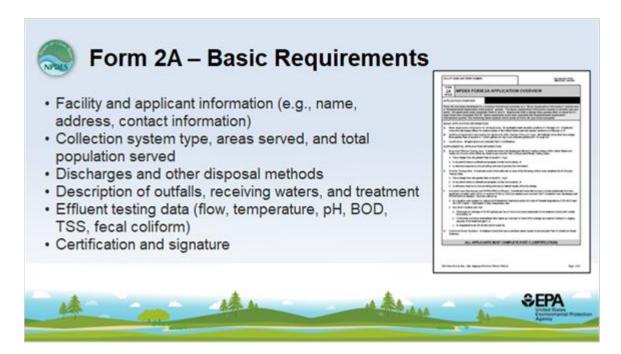
As Dave noted earlier, Form 1 requires some general information about the applicant. This information includes the facility name, address, location (including a topographic map), contact information, and a description of the business.

Of course, there is also a requirement to sign a certification that, based on the signatory's knowledge of how the information was collected, what is provided in the form is true, accurate, and complete. The signatory also acknowledges that there could be significant penalties for submitting false information. This certification and signature is a common element of all application forms.

Form 1 is required except where the information in Form 1 is already part of another application form submitted by the discharger, as is the case when a facility submits Form 2A, which is for new or existing publicly-owned treatment works, or POTWs. When EPA revised the application form for POTWs in the 1990s, it included the basic information from Form 1 in Form 2A.

You can access Form 1 and the instructions for completing the form at the Web address given on this slide.

1.11 Form 2A – Basic Requirements



Notes:

Speaking of Form 2A, let's take a look at its information requirements.

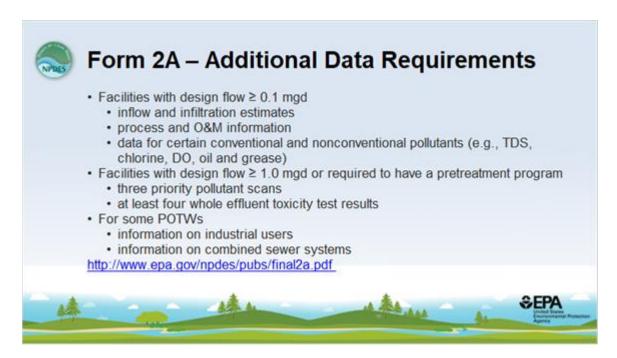
As I mentioned in the last slide, Form 2A is for new or existing publicly-owned treatment works. POTWs are facilities that treat municipal and industrial wastewater and are owned by a state or municipality.

There are some basic requirements in Form 2A that apply to all POTWs. You can see that these requirements include facility and applicant information that would duplicate some of the requirements of Form 1, such as the facility name, address, and contact information.

Other basic requirements include information about the collection system, a description of the discharges or other disposal methods, receiving water, type of treatment, and some basic effluent data.

In addition, Form 2A includes a certification and signature requirement similar to the requirement in Form 1.

1.12 Form 2A – Additional Data Requirements



Notes:

The remainder of Form 2A is divided into several sections.

The determination of which sections a facility must complete is based on the design flow rate of that facility and some characteristics of the discharger.

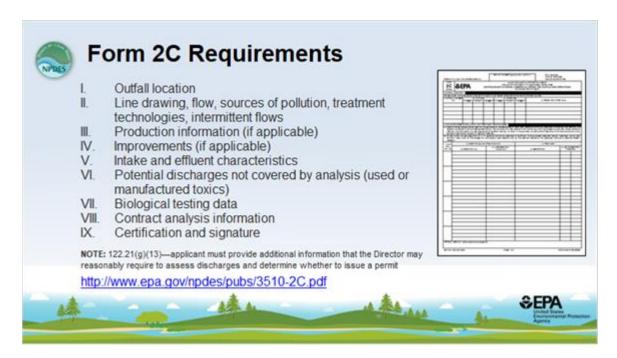
An applicant with a design flow of 100,000 gallons per day or more must complete a section that requires it to submit estimates of inflow and infiltration, provide a topographic map and a process flow diagram, give contact information for any contractor performing operation and maintenance of the facility, provide information on scheduled improvements, and provide effluent data for certain conventional and nonconventional pollutants.

Facilities with a design flow of 1 million gallons per day or more, or that are required to have a pretreatment program, must complete sections with additional effluent testing requirements that cover, mostly, toxic pollutants and whole effluent toxicity.

Finally, there are sections that apply to POTWs with significant industrial users and to facilities with combined sewer systems.

If you're interested in more information on Form 2A, the Web address where you will find a copy of the application form and its instructions is at the bottom of this slide.

1.13 Form 2C Requirements



Notes:

As we have noted, Form 2C is the application form required for existing manufacturing, commercial, mining, and silvicultural discharges-in other words, the renewal application for most "industrial" facilities.

This slide presents the sections of the form, so we can see what's typically required of an applicant.

As you can see, some of the required information is the same or similar to the information required in the application form for POTWs.

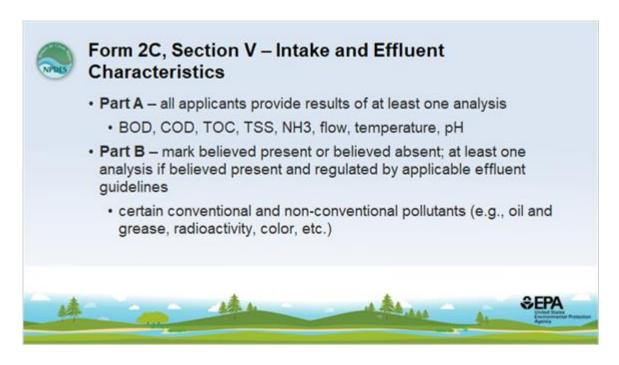
We'll consider the effluent testing requirements on the next slide, but I wanted to note a few of the other items on this list.

Section II asks for flow, sources of pollution, and treatment technologies associated with each outfall, and for a line drawing with a water balance. This information is important to permit writers for gaining an understanding of how water and wastewater move through the facility and treatment system.

Section III is production information. This is especially important because, most of the time, technology-based effluent limitations derived from effluent guidelines are based on some measure of actual production at the facility. This section requires the applicant to submit that information.

Finally, it's worth noting that Form 2C, like the other application forms, includes a certification and signature requirement.

1.14 Form 2C, Section V – Intake and Effluent Characteristics



Notes:

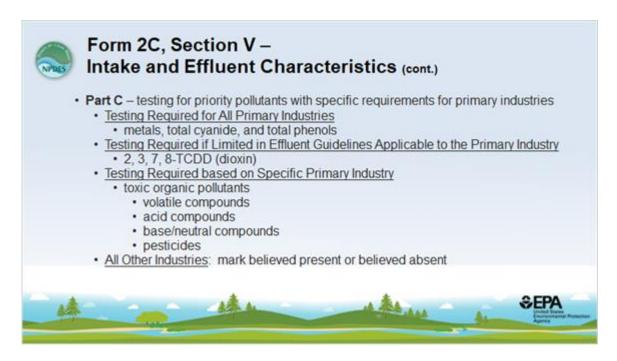
Section V of Form 2C contains the effluent data requirements, and it can be pretty complicated. We'll try to give you just an overview here.

In Part A, All facilities must provide data on flow, temperature, pH, biochemical oxygen demand, chemical oxygen demand, total organic carbon, total suspended solids, and ammonia. Each applicant must provide the results of at least one analysis for each of these parameters.

Part B requires every applicant to indicate whether it believes that each pollutant that's listed in Part B is present in or absent from the discharge. The list of pollutants in Part B includes several conventional and nonconventional pollutants such as fecal coliform, oil and grease, chlorine, color, nitrogen, phosphorus, radioactivity, and some metals. The applicant must provide the results of at least one analysis if the pollutant is believed present and is limited by an applicable national technology standard. If the pollutant is present, but not limited by an applicable national technology standard, the applicant must either provide quantitative data or explain the pollutant's presence.

1.15 Form 2C, Section V -

Intake and Effluent Characteristics (cont.)



Notes:

Part C of Section V includes data submission requirements that vary by industry category. Certain industrial categories are known as "primary industries." Facilities in a primary industry category are required to submit the results of at least one analysis for various metals, cyanide, and total phenols. In addition, depending on the specific category of industry to which the facility belongs, it might also be required to report on dioxin and submit the results for testing various groups of organic compounds. If the facility is not in a primary industry category or if testing is not otherwise required for a particular pollutant, the applicant must mark the pollutant "believed present" or "believed absent," as appropriate. If it marks "believed present" and believes that the pollutant is discharged above a certain threshold amount, indicated in the application form, then the discharger must provide either the result of at least one analysis for the pollutant or a description of why the pollutant is expected to be discharged.

We recommend that you read the application form and its instructions for a more detailed explanation of this part of the form and to understand the requirements that would apply to a specific applicant.

1.16 General Permit NOI Requirements



Notes:

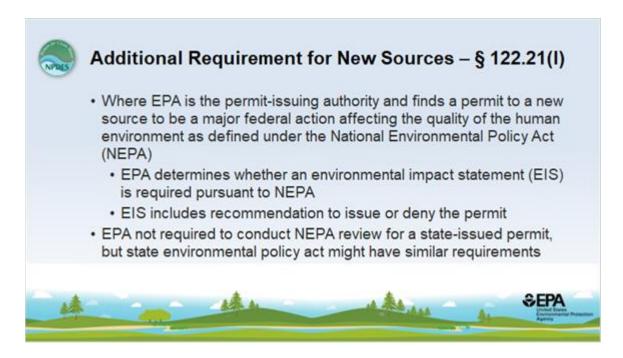
Let's briefly revisit the requirements for general permits.

The first thing you might notice about this slide is that it does not mention any EPA forms or form numbers. Remember that, in most cases, the general permit itself describes the specific information that someone seeking coverage under the general permit must provide to the permitting authority, usually through a Notice of Intent, or NOI.

A facility that files a complete and timely NOI has fulfilled the regulatory requirements for permit applications.

The specific NOI form and the information required typically is unique to each general permit, though some states have developed standard NOIs or other forms that are used for various general permits issued by that state.

1.17 Additional Requirement for New Sources – § 122.21(I)



Notes:

We need to take a moment to talk about an additional step in the application process for an applicant that is classified as a new source.

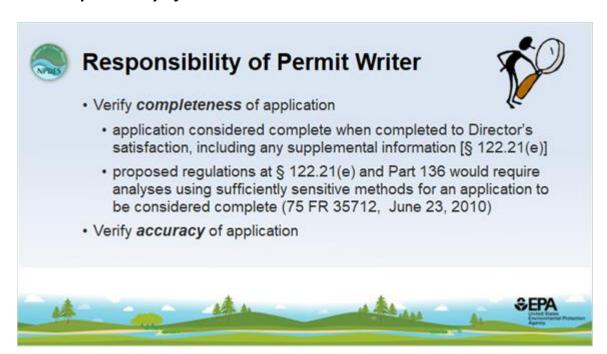
We're not going to try to define new source just yet. We will define that term in one of our presentations on technology-based effluent limitations.

At this point, we simply want to note that an extra requirement for new sources comes from the National Environmental Policy Act, or NEPA, and applies to permits that would be a federal action-in other words, where EPA is the permitting authority.

Where EPA would issue a permit and finds that permit to be a major federal action affecting the quality of the human environment, as defined under the NEPA, EPA determines whether an environmental impact statement, or EIS, is required pursuant to NEPA. The EIS, if required, includes a recommendation to issue or deny the permit.

EPA is not required to conduct this NEPA review for an NPDES permit issued by a state, but a parallel state environmental law could have similar requirements for new sources and necessitate a similar environmental review by the state permitting authority.

1.18 Responsibility of Permit Writer



Notes:

Up to this point, we've spent a lot of time talking about the permit applicant's responsibilities, but what is the responsibility of the permit writer in the application process?

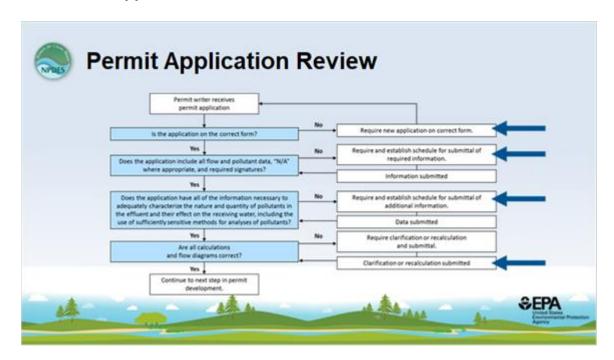
The permit writer's responsibility is to verify completeness and accuracy of the application.

In other words, the permit writer first needs to ensure that every part of the application form has been filled in and any supplemental information that the permitting authority requires, beyond the application form itself, has been submitted.

In addition, under a proposed regulation, part of the completeness determination would include the use of sufficiently sensitive analytical methods for the required pollutant analyses.

Second, the permit writer needs to verify as best as he or she can that the information provided in the application is accurate. For example, a permit writer would want to be sure that the effluent data provided in the application seem to be consistent with the facility type and, if there have been no major changes at the facility, with past performance.

1.19 Permit Application Review



Notes:

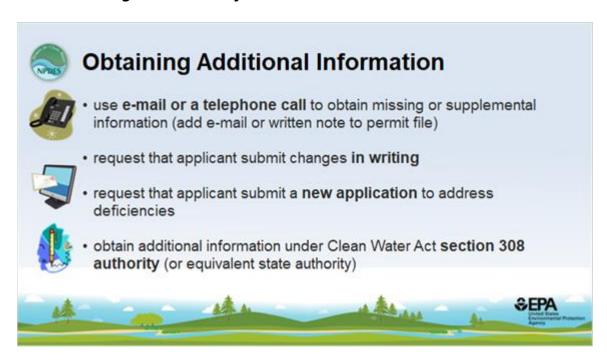
Here is a flow chart that outlines the permit application review process. It was adapted from the State of Washington's permit writer's manual.

Notice that, in several places, the flow chart indicates that the permit writer can require the applicant to submit additional information, such as effluent data or a flow diagram, because the application is incomplete.

In some cases, the permit writer might require the discharger to simply submit an entirely new application.

Also, there might be information beyond what is minimally required by the application form that the permit writer needs in order to write the permit. Remember, 40 CFR 122.21(e) states that "an application for a permit is complete when the Director receives an application form and any supplemental information which are completed to his or her satisfaction."

1.20 Obtaining Additional Information



Notes:

There are a number of ways a permit writer might ask for and receive additional information from the applicant. That additional information can be what is needed to ensure a complete permit application form or, as noted before, can include information to clarify or go beyond the minimum application form requirements.

Whatever information is received from the applicant should either be in writing or, at the very least, captured in a note to the permit file.

For example, if the permit writer makes a telephone call to obtain additional information regarding a process used at the facility, he or she should at least add a note to the file with the date and time of call, the name and telephone number of the person at the facility who provided information and the name and telephone number of the permit writer making the call.

Permit writers also can request that the information be submitted in writing to follow-up the phone conversation and add that written response to the permit file. This follow-up could be particularly important for any information that would affect specific permit conditions.

As noted before, if an application is simply inadequate, the permit writer can request that the applicant address the deficiencies by submitting a new application.

Finally, section 308 of the Clean Water Act gives EPA authority, and similar state law would give the state authority, to obtain additional information from the permittee as needed to carry out NPDES program requirements.

1.21 Additional Sources of Information for Permit Development



Notes:

It's important to remember that much of the information needed to draft a permit that is not in the permit application form is likely already available elsewhere, such as from the sources listed on this slide.

We'll discuss how a permit writer uses some of the sources of information on this slide (for example, effluent guideline development documents and water quality standards) in other presentations in this series.