


MEMORANDUM

Department of Environmental Quality
Division of Water Program Coordination

SUBJECT: Guidance Memo No. 00-2015
Implementation Guidance for July, 2000 Revisions to the VPDES Permit Regulation

TO: Regional Directors

FROM: Larry G. Lawson, P.E. 

DATE: September 27, 2000

COPIES: Regional Permit Managers, Regional Compliance and Enforcement Managers, Water Permit Managers, Mary Jo Leugers, Martin Ferguson, OWPP staff

On July 12, 2000 the State Water Control Board adopted amendments to the VPDES Permit Regulation, 9 VAC 25-31-10 et seq. These amendments were necessary to bring the regulation into conformance with recent changes to the federal NPDES regulations and the 2000 statutes adopted by the Virginia General Assembly. The amendments were adopted as final, without public participation, under the technical amendment provision of the Administrative Process Act. They were published in the Virginia Register on August 28, 2000 and their effective date is September 27, 2000. The purpose of this memo is to identify the regulation changes and to give guidance, where necessary, for their implementation in the VPDES permit process. The full text of the revised regulation is posted on k:\agency\owps\vpdes and on DEQNet in the VPDES Permits section. If you have questions about the regulation amendments or this implementation guidance, please contact Richard Ayers.

9 VAC 25-31-10 Definitions

Modifications to existing definitions or addition of new definitions were made to support the changes made elsewhere in the regulation. New definitions were added for Indian Country, Municipal Separate Storm Sewer System, Small Municipal Separate Storm Sewer System, Storm Water Discharge Associated With Small Construction Activity, and TWTDS (treatment works treating domestic sewage).

9 VAC 25-31-30 Federal Effluent Guidelines

The list of federal effluent guidelines regulations was updated.

9 VAC 25-31-100 Application for a Permit

Significant revisions were made to the permit application requirements for municipal sewage treatment works. The major impact of these changes will be that in the future, all treatment works treating domestic sewage will apply on Form 2A. This will eliminate the need for Form 1, Standard Form A, Short Form A and Form 2E for municipal sewage treatment works. (Form 1 and Form 2E will still be used for industrial discharges.) Since Form 2A has its own Paperwork Reduction Act statement, there is no longer a need to send that sheet to municipal permittees. There will also be some modifications to our Sewage Sludge Application Form in order to make it conform to the new sludge application requirements in Paragraph P. EPA has promulgated Form 2S for sludge applications, but since we already have a sludge application form and it contains all of the 2S information and some information not on the EPA form, such as data on nutrients, we will modify our form instead of adopting 2S.

Although subparagraph C 2 was extensively rewritten, the basic requirement that treatment works

treating domestic sewage (TWTDS) file a sludge application form with their next VPDES permit reissuance application remains unchanged. This is the way we have been implementing the sludge use and disposal requirements since 1996.

Two new provisions were added to paragraph E. Subparagraph E 3 reflects the General Assembly's adoption of § 62.1-44.15:3 A (House Bill 451). This provision requires the submittal of a Local Government Ordinance Form (LGOF) from the locality where the discharge is to take place if the permit is being issued to a sewage discharge into an impoundment. Note that this requirement only applies to issuance, not reissuance or modification, for sewage discharges into impoundments. The permit application cannot be considered complete without this local government certification. An example LGOF is attached to this memo. The form should be sent to the permit applicant with the other application forms if the proposed discharge is into an impoundment.

Subparagraph 9 VAC 25-31-100 E 4 addresses application testing waivers for TWTDS. The introductory language of paragraphs J and P gives more information on the Board's ability to grant waivers from application testing for municipal discharges. If information required by the application is already on file at DEQ (previously submitted by the permittee or substantially identical data), the Board can grant a waiver to avoid making the permittee resubmit or duplicate data. This type of waiver could be used for parameters that the permittee was required to monitor and report during the previous permit term. These waivers can be made without EPA's concurrence. **However, if the data is not already on file and the permittee asks for a waiver and the permit writer determines that the information is not of material concern for this particular permit, then the EPA must concur on our decision to waive it.** This is a new restriction and it only applies to TWTDS, not industrial permit applications.

Types of waivers: The effluent testing requirements of Form 2A are very specific. An applicant will have to ask for a waiver from any of them. This includes the parameter to be tested (e.g. EPA's priority pollutant list vs our water quality criteria list for toxics), the sample type (grab vs composite), the number of samples or sample frequency, and the test method (e.g. dissolved vs total recoverable metals). (Applicants who do not have information for the answers to Questions A 10 d and e, which ask for critical flows and receiving stream hardness, may indicate "NA" or "unknown". These answers to these questions will not require EPA waiver approval. DEQ will generate this information from our own sources if we need it.)

Procedure for granting waivers: Previously, the Board had the discretion to grant application testing waivers for any parameter that was on the application form. EPA's adoption of the new municipal application requirements deleted this discretionary provision. In August 1999, EPA also adopted 40 CFR Part 123.43(b) which says:

"If the State intends to waive any of the permit application requirements of § 122.21 (j) or (q) [this is our new paragraphs J and P] of this chapter for a specific applicant, the Director must submit a written request to the Regional Administrator no less than 210 days prior to permit expiration. This request must include the State's justification for granting the waiver."

a. Reissuance applications for Major Permits: With this rulemaking, EPA has said that the decision to grant certain waivers for a municipal application for permit reissuance must be made jointly by DEQ and EPA, and it must be made on a permit-by-permit basis. In addition, the request for a waiver at permit reissuance must be filed with EPA at least 210 days before the existing permit is due to expire. However, subparagraph E 4 of the revised VPDES Permit Regulation says if EPA does not respond to the waiver request by 181 days before permit expiration, the application can be considered complete without the required information. Thus, EPA has to have at least 29 days to review and decide on the waiver request. If we send the request to them on time and they do not respond on time, then the waiver is granted by default. The key to this process is the submittal of the waiver request by the 210 day deadline. This will require that the permittee be made aware of the new waiver requirements at the time we send the reissuance reminder letter (365 days before expiration) and that he send his waiver request to us soon enough for us to process it and get it to EPA by the

210 day deadline. We are suggesting that the permittee's request get to DEQ not later than 240 days prior to expiration so we will have enough time to send it on to EPA. The regional office would then submit the waiver request to the Regional Administrator on behalf of the Director. The waiver request to the Regional Administrator must include the justification for the waiver. In most cases, the waiver justification will be that the information being waived is not of material concern for this specific permit. If EPA approves the waiver request or fails to act prior to their 29 day deadline, the application can be considered complete and EPA cannot object to the permit on the basis of the application completeness. However, if EPA denies the waiver request, and the Board processes the application anyway, EPA can object to the permit because it is being issued without consideration of the required information. If EPA denies the waiver request, the permittee should be notified that the waiver is not granted and the information must be submitted before the application can be considered complete. The reissuance reminder letter has to be revised to include this new waiver request procedure. An example is attached.

b. Minor Municipal Permits: In the MOU that authorizes the Board to administer the NPDES program, EPA has waived its right to comment on draft permits for minor municipal discharges. Although they have recently asked to see minor permits associated with TMDLs, most minor permits are only sent to EPA after the permit has been issued. This intent to delegate decisions on minors to the Board applies to application testing waivers. Therefore, when a minor municipal discharger asks for a waiver from a Form 2A or sludge application testing requirement, the region may grant the waiver without receiving EPA approval. The complete rationale for the waiver must be documented in the fact sheet for the permit so that when the final permit package is sent to EPA, they will have the documentation for the waiver. Note that according to the new VPDES Permit Manual, all draft permits will have a Fact Sheet. The Statement of Basis is no longer used for minor permits. It has been replaced by the Fact Sheet.

c. New discharges: Since a new or proposed discharge will not be able to provide effluent test data, there is no need to grant a waiver from Form 2A or sludge application testing requirements or to obtain EPA approval to determine the application complete. Applicants may simply write "NA" in the testing data blocks of the application. Applicants will still have to give as much information as they can regarding discharge location, receiving stream, etc. Permit writers may ask for estimated values if this information will be useful in drafting the permit. Special conditions may also be included in the new permit requiring the permittee to submit the application data once the discharge commences if the permit writer believes it will be beneficial to have that information. Otherwise, the permit should contain the special conditions recommended by the VPDES Permit Manual. On reissuance, the procedures described above for major and minor discharges will apply.

These waiver procedures apply to all applications that come in on the new Form 2A or the revised sludge application form. This guidance on application testing waivers supercedes the procedures for municipal discharges in Guidance Memo #92-003.

The rest of paragraph J describes the application requirements for POTWs and other TWTDS. This essentially mirrors the content of the new Form 2A. Form 2A is in 7 parts. Parts A and C are required for ALL applicants. Discharges with a design flow of 100,000 gpd or more will also complete Part B. If the design flow is greater than or equal to 1 MGD (municipal majors), or if the applicant is required to have a pretreatment program, then they will complete Parts D and E. Those TWTDS that accept process wastewater from Significant Industrial Users or that receive RCRA or CERCLA waste must complete Part F. If the system has combined sewer overflows (CSOs), the applicant must also complete Part G. The new Form 2A and its instructions are attached to the paper copy of this memo. The form itself is in .pdf format and is not part of the electronic version of this guidance memo. It is available for printing and copying on k:\agency and DEQNet.

The regional offices should begin sending Form 2A with municipal reissuance reminder letters immediately. Form 2A should also be sent to any new municipal applicants at this time. Because the old application forms have been sent out with reissuance reminder letters for the past 12 months, a transition from

the old forms to the new form will take place over the next 12 months. The regions may accept the old application forms until September 27, 2001 in order to account for those forms that have already been distributed. After that date, Form 2A will be the only acceptable municipal application form. The other municipal application forms will be officially deleted from the list of forms on file with the Virginia Registrar of Regulations on September 27, 2001. Since we will accept old application forms until September 27, 2001, waiver requests that come in with them can be processed under the old waiver procedures. **After that date, the new forms, as well as the new waiver procedures, are mandatory.**

Paragraph P contains the new requirements for permit applications for sewage sludge management at TWTDS. These requirements are reflected in the revised Sewage Sludge Application Form. A copy is attached. This form, and the sludge application requirements in the regulation, are only slightly modified from the version that has been in place for the past few years. The regions should begin sending the new form with reissuance reminder letters immediately. As with Form 2A, there will be a 12 month transition period. **After September 27, 2001, only the new sludge application form should be accepted. Any testing waivers requested by the permittee should follow the same procedures given for Form 2A.**

9 VAC 25-31-120 Storm Water Discharges

The major change to this part of the regulation is the addition of two new categories of storm water discharges: small municipal separate storm sewer systems (MS4s); and small construction activities (those that disturb between 1 and 5 acres). Small MS4s are systems that serve populations less than 100,000 in urbanized areas. They include systems in military bases, universities, state facilities, and VDOT highways. These sources of storm water were included in EPA's Phase II storm water rulemaking in December 1999. Subparagraph D 6 establishes March 10, 2003 as the deadline for discharges from both categories to obtain a discharge permit. Between now and then, we plan to develop general permits for these two categories and implementation guidance will come out with them.

Another significant change in this part is the addition of paragraph F, which provides for an exclusion from the need for a permit if the owner of an activity that is classified as having storm water associated with industrial activity can demonstrate that there is no exposure of industrial activities and materials to storm water. A similar exclusion was included in the general permit for industrial storm water that was issued in June 1999. Since then, EPA revised their no exposure provisions and included them in the NPDES rulemaking. Attached to this guidance is a revised checklist for no exposure certification and instructions for completing it. The regions should send this checklist to persons who request exclusion from storm water permitting based on no exposure. When the checklist is returned, the region should review it to determine if the facility is exempt. If they are exempt, the exemption is good for 5 years from the date DEQ received the checklist. If the region does not accept their certification based on the checklist and/or a site inspection, the facility is not exempt. They should apply for a permit. Sample letters for accepting, commenting on, and rejecting no exposure exemption requests are attached to this guidance.

9 VAC 25-31-121 Small Municipal Separate Storm Sewer Systems

EPA's Phase 2 Storm Water Regulations require DEQ to issue storm water discharge permits to small municipal separate storm sewer systems (small MS4s) located in urbanized areas. Small MS4s include systems owned by municipalities, federal facilities, State facilities, universities and VDOT. In Virginia, 43 municipalities located within urbanized areas have been "automatically designated" by EPA; and 10 more have been "potentially designated", meaning that DEQ will have to evaluate these 10 areas before they are officially designated for permitting. In addition, any small MS4 located in a Phase 1 "large" or "medium" municipality is required to be permitted under this rule (there are 11 Phase 1 municipalities currently permitted by DEQ).

Permits for regulated small MS4s will require the development, implementation and enforcement of a Storm Water Management (SWM) Program that includes the following "six minimum control measures": (1) public education and outreach on storm water impacts, (2) public involvement/participation, (3) illicit discharge detection and elimination, (4) construction site storm water runoff control, (5) post-construction storm water

management in new development and redevelopment, and (6) pollution prevention/good housekeeping for municipal operations.

Regulated small MS4s must apply for a permit by 3/10/03, and will have up to 5 years after DEQ issues the general permit to develop and implement their SWM program. Small MS4 permit applications must identify (1) the BMP's and Measurable Goals for each of the "six minimum control measures"; (2) the timing of the implementation of each control measure; and (3) the person or persons responsible for implementing the small MS4 SWM program.

EPA has until 10/00 to develop a "menu of BMPs", and until 10/01 to develop guidance to assist the small MS4s in the development of "measurable goals". These documents will assist small MS4s with their permit applications. EPA also has until 10/00 to develop a model small MS4 storm water general permit. DEQ has until 12/09/02 to develop a small MS4 VPDES permit. We will most likely develop one or more general permits based upon EPA's model permit to cover the small MS4s. If DEQ issues a general permit for small MS4s, we have to make available a menu of BMP's to assist the MS4s in their permit application. We will be using EPA's menu of BMP's as a starting point, and working with DCR and CBLAD to insure Statewide consistency in the menu of BMP's that is developed.

DEQ has to develop a process and criteria to designate additional small MS4s. We have to designate small MS4s that meet our criteria by 12/9/02; we may wait until 12/08/04 to designate on a watershed basis if we have developed a comprehensive watershed plan.

DEQ has to make a final determination on petitions to designate MS4s within 180 days from receipt of the petition (any person may petition the Director for the designation of a large, medium or small MS4.)

DEQ's Water Division will be issuing separate guidance for various components of the Phase 2 Storm Water Program as the program develops.

9 VAC 25-31-200 Additional Conditions Applicable to Specified Categories of VPDES Permits

Paragraph E is added to reflect the General Assembly's enactment of § 62.1-44.15:1.2 (House Bill 625). This new section of the law requires that if a VPDES permit is issued for a surface water impoundment whose primary purpose is to provide cooling water for a power plant, then the permit must have a lake level contingency plan that allows for reductions in the flow from the impoundment during droughts. The requirement does not apply if the lake release is governed by a VWP permit. This statutory requirement has limited applicability since most impoundments are permitted under the VWP program, not VPDES. At this time, Lake Anna is the only cooling water impoundment where lake level is regulated by a VPDES permit.

9 VAC 25-31-220 Establishing Limitations, Standards and Other Permit Conditions

Paragraph K was modified to add storm water discharges to the list of categories that can be controlled by best management practices. This doesn't change the way we have been processing permits.

Paragraph R was added to allow permit conditions that recognize the validity of state or local erosion and sediment control programs in management of storm water discharges from small construction activities. These programs are already included in the construction storm water general permit. When the general permit is modified to include small construction activities, this paragraph will support the incorporation by reference of local erosion and sediment control plans. Further guidance on this will be issued with the general permit.

9 VAC 25-31-280 Fact Sheet

The justification of application testing waivers granted to municipal applicants under 9 VAC 25-31-100 J or P was added to the list of items that must be included in the permit fact sheet. This will be included in the

new permit manual's example fact sheet.

9 VAC 25-31-390 Modification or Revocation and Reissuance of Permits

Paragraph A, Causes for Modification, was revised to allow permits for small MS4s to be modified to insert special conditions implementing a minimum control measure that was not already in the permit because it was supposed to be implemented by another entity, which has failed to do so. Details on minimum control measures will be included in the implementation guidance for the small MS4 storm water permits.

9 VAC 25-31-500 Definitions

The definition of pH in the sludge section was modified to specify 25° C as the correct test temperature.

9 VAC 25-31-510 Applicability

The exclusions from sludge regulation in paragraphs B – G were modified to include ceiling concentrations as part of the decision criteria. The numeric values for the ceiling concentrations did not change. This regulatory amendment doesn't change the way we regulate sludge since these same ceiling concentrations are already being used as the maximum limits in our permits. EPA did this to clarify their regulation.

9 VAC 25-31-570 and 9 VAC 25-31-660 Frequency of Monitoring

The monitoring requirements for vector attraction reduction methods B5 and B6 were deleted. The minimum monitoring frequency of once per year was also deleted from the table footnote A 2. However, in order to maintain an adequate database on the amount and quality of sludge being land applied, a minimum monitoring frequency of once per year is still recommended.

9 VAC 25-31-580 and 9 VAC 25-31-670 Recordkeeping

The language of the certification statements the permittee must file with the sludge use and disposal DMR was modified. This change will be reflected in the permit language in the new VPDES Permit Manual.

9 VAC 25-31-710 Pathogens

In paragraphs B and E some minor wording changes were made to clarify the intent of several requirements. These were incorporated into the instructions for the sludge application form.

DISCLAIMER

This document provides procedural guidance to the permit staff. This document is guidance only. It does not establish or affect legal rights or obligations. It does not establish a binding norm and is not finally determinative of the issues addressed. Agency decisions in any particular case will be made by applying the State Water Control Law and the implementation regulations on the basis of the site specific facts when permits are issued.

Attachment List:

Local Government Ordinance Form
Reissuance Reminder Letter
VPDES Permit Application Form 2A and Instructions
Letters for Industrial Storm Water No Exposure Certifications
Industrial Storm Water No Exposure Certification Form and Instructions
VPDES Sewage Sludge Permit Application Form and Instructions

Local Government Ordinance Form

SUBJECT: Local and Areawide Planning Requirements

TO: Applicants For A Virginia Pollutant Discharge Elimination System Permit to Discharge Treated Sewage into an Impoundment

§ 62.1-44.15:3 A of the State Water Control Law states:

"No application for a certificate to discharge sewage into any water impoundment located in the state shall be considered complete unless it contains notification from the governing body of the county, city, or town in which the discharge is to take place that the location and operation of the discharging facility are consistent with applicable ordinances adopted pursuant to Chapter 22 (§ 15.2-2200 et seq.) of Title 15.2. The governing body shall inform in writing the applicant and the Board of the discharging facility's compliance or noncompliance not more than forty-five days from receipt by the chief administrative officer, or his agent, of a request from the applicant. Should the governing body fail to provide such written notification within forty-five days, the requirement for such notification is waived. The provisions of this subsection shall not apply to any discharge for which a valid certificate had been issued prior to the effective date of this act. [Effective March 10, 2000]"

An application for a VPDES permit for a sewage discharge into an impoundment will not be considered complete until the certification statement in accordance with this section is submitted to the Department of Environmental Quality Regional Office. Applicants may use the bottom of this page to transmit the request to the locality.

To: _____
(County, City, or Town Administrator/Manager)

I am in the process of completing an application for a VPDES permit. In accordance with § 62.1-44.15:3 A of the Code of Virginia, I request that you sign one of the three statements certifying that the operation described on the attached permit application is or is not consistent with your local ordinances. Please return this form to me at:

(Applicant's address) : _____

PLEASE SEE THE REVERSE SIDE OF THIS FORM FOR CERTIFICATION STATEMENTS

LOCAL GOVERNMENT ORDINANCE FORM

For VPDES permit applications for sewage discharges into impoundments

In reference to the request from: _____
Applicant's Name

For certification of a discharge at:

Name and Location of Facility

I hereby certify,

___ (1) That the proposed location, and operation of the facility is consistent with all ordinances adopted pursuant to Chapter 22 (§15.2-2200 et seq.) of Title 15.2 of the Code of Virginia

OR

___ (2) That no local ordinances are in effect pursuant to Chapter 22 (§15.2-2200 et seq.) of Title 15.2 of the Code of Virginia

OR

___ (3) That the proposed location and operation of the facility is **not** consistent with all ordinances adopted pursuant to Chapter 22 (§15.2-2200 et seq.) of Title 15.2 of the Code of Virginia

Signature Title

Printed Name Date

Reissuance Reminder Letter

Regional DEQ Letterhead
Date

Facility Name
Address

Attn:
Re: VPDES Permit No. VA0000000

Dear :

This letter is to remind you that your VPDES permit will expire on (date). If you wish to continue discharging, you must reapply for the permit. The State Water Control Board's VPDES Permit Regulation requires that we receive a complete application at least 180 days before the existing permit expires. The deadline for submitting the application is (date). Early submissions are welcome and will better enable us to complete processing before permit expiration. The instructions and application forms are enclosed. **[For industrial discharges:** If you would like to request a waiver from any of the sampling or testing requirements in the application forms, please contact me prior to submitting your application or provide a thorough justification for the request when you submit your application.]**[For municipal discharges:** If you would like to request a waiver from any of the sampling or testing requirements in the application forms, you must submit your application and a thorough justification for the request at least 240 days prior to the exiting permit's expiration date. These waiver requests must be approved by DEQ and the U.S. EPA at least 180 days before the existing permit expires. DEQ will review your waiver request and, if it is justified, forward it to EPA. Failure to submit the waiver request by the 240 day deadline will result in the waiver being denied.]

[For municipal discharges: Upon completing the application, return the original and three copies to the [] Regional Office at the above address and mail one copy (**2 copies if discharge is into shellfish waters**) to the Virginia Department of Health, Office of Water Programs, Environmental Engineering Field Office, (**VDH Address here**)].

[For industrial discharges: Upon completing the application, return the original and four copies to the [] Regional Office at the above address.]

In addition, we must receive the appropriate permit fee before we can process your application. Based on your current permit, the fee for this permit action is []. Please follow the instructions on the enclosed Permit Application Fee form concerning payment of the fees.

Please call me at () XXX-XXXX if you have any questions.

Sincerely,

[Permit Writer]
Environmental Engineer

Enclosures

(Note to Permit Writers-Include with this letter a copy of all applicable application forms, the VPDES Permit Application Addendum, the Paperwork Reduction Act notice, the list of common application errors, and the Pollution Prevention Flyer.

Instructions for Completing Form 2A--Application for an NPDES Permit

Paperwork Reduction Act Notice: The annual public reporting and recordkeeping burden for this collection of information is estimated to average 9.6 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments regarding the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OP Regulatory Information Division, U.S. Environmental Protection Agency (2137), 401 M St., S.W., Washington, DC 20460. Include the OMB control number in any correspondence. Do not send the completed Form 2A to this address.

Background Information

Each wastewater treatment works that discharges treated effluent to waters of the United States must apply for a permit for its discharges. This permitting requirement is part of the National Pollutant Discharge Elimination System (NPDES) program, which is implemented by the U.S. Environmental Protection Agency (EPA). You can obtain a permit for your treatment works by filling out and sending in the appropriate form(s) to your permitting authority. If the State in which your treatment works is located operates its own NPDES program, then the State is your permitting authority and you should ask your State for permit application forms. On the other hand, if EPA operates the NPDES program in your State, then EPA is the permitting authority, and you must fill out and send in Form 2A.

These instructions explain how to fill out each question in Form 2A. However, not every applicant will have to fill out every section of Form 2A. You may determine which parts of Form 2A apply to your treatment works by reading the Application Overview section on page 1 of Form 2A before filling out the form.

Commonly Asked Questions

What If I Need More Space for My Answer?

If you need more room for your answer than is provided on the form, attach a separate sheet called "Additional Information." At the top of the separate sheet, put the name of your plant, your plant's NPDES permit number, and the number of the outfall that you are writing about, if applicable. Also, next to your answer, put the question number (from Form 2A). Provide this information on any drawings or other papers that you attach to your application as well.

Will the Public Be Able To See the Information I Submit?

Any information you submit on Form 2A will be available to the public. If you send in more information than is requested on Form 2A that is considered company-privileged information, you may ask EPA to keep that extra information confidential. Note that you cannot ask EPA to keep effluent data confidential. If you want any of the extra information to be kept confidential, inform EPA of this when you submit your application. Otherwise, EPA may make the information public without letting you know in advance. For more information on claims of confidentiality, see EPA's business confidentiality regulations at Title 40, Part 2 of the Code of Federal Regulations (CFR).

How Do I Complete the Forms?

Answer every question on Form 2A that applies to your treatment works. If your answer to a question requires more room than there is on the form, please attach additional sheets as described above. If a particular question does not apply to your treatment works, write "N/A" (meaning "not applicable") as your answer to that question. If you need additional guidance on filling out these forms, contact your EPA Regional Office or your State office.

Which Parts of the Form Apply?

Form 2A is presented in a modular format, consisting of two packets: the Basic Application Information packet and the Supplemental Application Information packet. The Basic Application Information Packet is divided into three parts. All applicants must complete Part A (Basic Application Information For All Applicants) and Part C (Certification). Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B (Additional Application Information For Applicants With A Design Flow Greater Than Or Equal To 0.1 MGD). Some applicants must also complete the Supplemental Application Information packet. Refer to the Application Overview on page 1 of Form 2A to determine which parts of the Supplemental Application Information you must complete.

Step-by-Step Instructions

The following section provides clarification and additional information for the questions on Form 2A. Most of the terms used in Form 2A are defined in the NPDES regulations at 40 CFR 122.2.

Basic Application Information

Part A (Basic Application Information for All Applicants)

A.1. Facility Information

Provide your plant's official or legal name. Do not use a nickname or short name. Also provide your plant's mailing address, a contact person at the plant, his/her title, and that person's work telephone number. The contact person should be someone who has a thorough understanding of the operation of the treatment works. The permitting authority may call this person if there are any questions about the application. Also provide the actual facility address (if different than the mailing address). The facility location should be a street address (not a Post Office box number) or other description of the actual location of the facility. Be sure to provide the city or county and state in which the facility is located.

A.2. Applicant Information

If someone other than the facility contact person is actually submitting this application (e.g., a consultant), provide the name and mailing address of that person's organization. Also provide the name of a contact person, his/her title, and his/her work telephone number. The permitting authority may call this person if there are any questions about the application.

A.3. Existing Environmental Permits

Provide the permit number of each currently effective permit issued to the treatment works for NPDES, UIC, RCRA, PSD, and any other environmental programs. If you have previously filed an application but have not yet received a permit, give the number of the application, if any. If you have more than one currently effective permit under a particular permit program, list each such permit number. List any other relevant environmental permits under "Other."

A.4. Collection System Information

Provide the names of all the cities, towns, and unincorporated areas served by your plant and enter the number of people served by your plant at the time you complete this form. Indicate whether each portion of the collection system is separate or combined storm and sanitary, if known, and note the ownership status of each portion of the system (municipal, private, etc.).

A.5. Indian Country

Indian Country means all land within the limits of any Indian reservation under the jurisdiction of the United States Government notwithstanding the issuance of any patent, and including rights-of-way running through the reservation. Indicate whether your plant is located in (i.e., within the limits of) Indian Country and whether the water body into which your plant discharges flows through Indian Country after it receives your plant discharge.

A.6. Flow

a. Provide your plant's current design flow rate. Treatment works with a design flow less than 5 mgd must provide the design influent flow rate to two decimal places. Treatment works that are greater than or equal to 5 mgd must report this to 1 decimal place. This is because fluctuations of 0.01 mgd to 0.09 mgd in smaller treatment works represent a significant percentage of daily flow.

b. Enter the annual average daily flow rate, in million gallons per day, that your plant actually treated this year and each of the past two years for days that your plant actually discharges. Each year's data must be based on a 12-month time period, with the 12th month of "this year" occurring no more than three months prior to this application submittal.

c. Enter the maximum daily flow rate, in million gallons per day (mgd), that your plant received this year and each of the past two years. Each year's data must be based on a 12-month time period, with the 12th month of "this year" occurring no more than three months prior to this application submittal.

A.7. Collection System

Indicate what type of collection system brings wastewater to your plant. If you check both of the collection systems indicated on the form, you must also provide an estimate of what percentage (in terms of miles of pipe) of your entire collection system each type represents. For example, 80 percent separate sanitary sewers would mean that 80 percent of the actual miles of pipes are separate sanitary sewers (and 20 percent are combined sewers).

A.8. Discharges and Other Disposal Methods

a. Note whether the treatment works discharges effluent to waters of the U.S. If yes, note the number of treated effluent discharge points, untreated or partially treated effluent discharge points, combined sewer overflow points, constructed emergency overflows prior to the headworks, and any other discharge points. Dischargers of effluent to waters of the U.S. with flow rates greater than or equal to 0.1 mgd must also complete questions B.1 through B.6 and, in some cases, Part D (Expanded Effluent Testing Data) of Form 2A. See the Application Overview on page 1 of Form 2A for more information.

b. A surface impoundment with no point source discharge (to waters of the U.S.) is a holding pond or basin that is large enough to contain all wastewaters discharged into it. It has no places where water overflows from it. It is used for evaporation of water and very little water seeps into the ground. Your plant must report the location of each surface impoundment, the annual average volume discharged to each impoundment, and the frequency of discharge into the surface impoundment (i.e., is the discharge continuous or intermittent). If your plant discharges to more than one surface impoundment, use an additional sheet (or sheets) to give this information for each impoundment. Attach the additional sheet(s) to the application form. The information on the location of the surface impoundment(s) may be referenced on the topographic map prepared under question B.2, if applicable.

c. Land application is the spraying or spreading of treated wastewater over an area of land. If your plant applies wastewater to land, you must list the site location, the size of the site (in acres), the annual average daily volume applied to the site, and the frequency of application (i.e., is the application continuous or intermittent). If your plant applies wastewater to more than one site, provide the information for each site on a separate sheet (or sheets). Attach the additional sheet(s) to your application form. The information on the location of the land application site may be referenced on the topographic map prepared under question B.2, if applicable.

d. If your plant discharges treated or untreated wastewater to another treatment works (including a municipal waste transport or collection system), provide the information requested in question A.8.d. If your plant sends wastewater to more than one treatment works, provide this information for each treatment works on an

additional sheet (or sheets). Attach the additional sheet(s) to your application form. Describe how the wastewater is transported to the other treatment works. Also provide the name and mailing address of the company that transports your plant's wastewater to this treatment works as well as the name, phone number, and title of the contact person at the transportation company. Also provide the name and mailing address of each treatment works that receives wastewater from your plant as well as the name, phone number, and title of the contact person at the treatment works that receives your plant's wastewater and the NPDES permit number for the treatment works, if known. Indicate the average daily flow, in million gallons per day, that is sent from your plant to the other treatment works.

e. If your plant disposes of its wastewater in some way that was not described by A.8.a through A.8.d above, briefly describe how your plant discharges or disposes of its wastewater. Also give the annual daily volumes disposed of this way and indicate whether the discharge is continuous or intermittent. Other ways to discharge or dispose include underground percolation and well injection.

Wastewater Discharges. If this treatment works does not discharge treated wastewater to waters of the United States, do not complete questions A.9 through A.11. Instead, go to Part C (Certification). Note that you may also be required to complete portions of the Supplemental Application Information packet.

Answer questions A.9 through A.12 once for each outfall (including bypass points) through which your treatment works discharges effluent to surface waters of the United States. Do not include information about combined sewer overflow discharge points. Surface water means creeks, streams, rivers, lakes, estuaries, and oceans. If your treatment works has more than one outfall, copy and complete questions A.9 through A.12 once for each outfall.

A.9. Description of Outfall

a-e. Give the outfall number and its location. For location, provide the city or town (if applicable), zip code, county, state, and latitude and longitude to the nearest second. If this outfall is a subsurface discharge (e.g., into an estuary, lake, or ocean), indicate how far the outfall is from shore and how far below the water's surface it is. Give these distances in feet at the lowest point of low tide. Also provide the average daily flow rate in million gallons per day.

f. Mark whether this outfall is a periodic or intermittent discharge. A "periodic discharge" is one that happens regularly (for example, monthly or seasonally), but is not continuous all year. An "intermittent discharge" is one that happens sometimes, but not regularly. Discharges from holding ponds, lagoons, etc., may be included as periodic or intermittent. Give the number of times per year a discharge occurs from this outfall. Also tell how long each discharge lasts and how much water is discharged, in million gallons per day. List each month when discharge happens. If you do not have records of exact months in which such discharges occurred, provide an estimate based on the best available information.

g. Indicate whether the outfall is equipped with a diffuser.

A.10. Description of Receiving Waters

a. Give the name of the surface water to which this outfall discharges and the waterbodies to which the discharge will ultimately flow. For example, "Control Ditch A, then into Stream B, then into River C, and finally into River D in River Basin E."

b. If known, provide the name of the watershed in which the receiving water (identified in question A.10.a) is located. If known, also provide the 14-digit watershed code assigned to this watershed by the U.S. Soil Conservation Service.

c. If known, provide the name of the State Management/River Basin into which this outfall discharges. If known, also provide the 8-digit hydrologic cataloging unit code assigned by the U.S. Geological Survey.

d. If known and if the water body is a river or stream, provide the acute and chronic critical low flow in cubic feet per second (cfs). If you are unsure of these numbers, the U.S. Geological Survey may be able to give them to you or you may be able to get these numbers from prior studies.

e. Give the total hardness of the receiving stream at critical low flow, in milligrams per liter of CaCO₃, if known.

A.11. Description of Treatment

- a. Indicate the levels of treatment that your plant provides for the discharge from this outfall.
- b. Give the design removal rates, in percent, for biochemical oxygen demand (BOD5) or carbonaceous biochemical oxygen demand (CBOD5), suspended solids (SS), phosphorus (P), nitrogen (N), and any other parameter requested by the permitting authority.
- c. Describe the type of disinfection your plant uses (for example, chlorination, ozonation, ultraviolet, etc.) and any seasonal variation in disinfection technique that may occur. If your plant uses chlorination, indicate whether it also dechlorinates.
- d. Note whether the facility has post aeration.

A.12. Effluent Testing Information

All applicants that discharge effluent to waters of the United States must provide effluent testing data for each outfall. Complete question A.12 once for each outfall through which effluent is discharged to waters of the United States. Indicate on each page the outfall number (as assigned in question A.9) for which the data are provided. Do not include information about combined sewer overflow discharge points in question A.12. For specific instructions on completing the pollutant tables in question A.12, refer to Appendix A of these instructions.

Part B (Additional Application Information for Applicants With a Design Flow Greater Than Equal to 0.1 MGD)

All applicants with a design flow rate greater than or equal to 0.1 mgd must answer questions B.1 through B.6.

B.1. Inflow and Infiltration

Estimate the average daily flow rate of inflow and infiltration in gallons per day and steps the facility is taking to minimize inflow and infiltration.

B.2. Topographic Map

Provide a topographic map (or other map if a topographic map is unavailable) extending at least one mile beyond property boundaries of the treatment plant, including all unit processes. In addition, the map must show the following:

- a. Treatment plant area and unit processes;
- b. Major pipes or other structures through which wastewater enters the treatment plant and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable;
- c. Each well where fluids from the treatment plant is injected underground;
- d. Wells, springs, and other surface waterbodies listed in public records or otherwise known to the applicant within one-quarter mile of the treatment works' property boundary;
- e. Sewage sludge management facilities (including on-site treatment, storage, and disposal sites); and
- f. Location at which waste classified as hazardous under RCRA enters the treatment plant by truck, rail, or dedicated pipe.

B.3. Process Flow Diagram or Schematic

Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Include a water balance showing all treatment units, including disinfection, and showing daily average flow rates at influent and discharge points, and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s)

If a contractor carries out any operational or maintenance aspects associated with wastewater treatment or effluent quality at this facility, provide the name, mailing address, and telephone number of each such contractor. Also provide a description of the responsibilities of the contractor. Attach additional pages if necessary.

B.5. Scheduled Improvements and Schedules of Implementation

Provide information on any improvements to your treatment works that you are currently planning. Include only those improvements that will affect the wastewater treatment, effluent quality, or design capacity of your treatment works (such improvements may include regionalization of treatment works). Also list the schedule for when these improvements will be started and finished. If your treatment works has more than one improvement planned, use a separate sheet of paper to provide information for each one.

a. List each outfall number that is covered by the implementation schedule. The outfall numbers you use must be the same as the ones provided under question A.9.

b. Indicate whether the planned improvements or implementation schedules are required by local, State, or Federal agencies.

c. Provide a brief description of the improvements to be made for the outfalls listed in question B.5.a, including new maximum daily inflow rate, if applicable.

d. Provide the information requested for each planned improvement. Supply dates for the following stages of any compliance schedule. For improvements that are planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. If a step has already been finished, give the date when that step was completed.

- "Begin Construction" means the date you plan to start construction.
- "End Construction" means the date you expect to finish construction.
- "Begin Discharge" means the date that you expect a discharge will start.
- "Attain Operational Level" means the date that you expect the effluent level will meet your plant's implementation schedule conditions.

e. Note whether your treatment works has received appropriate permits or clearances that are required by other Federal or State requirements. If you have received such permits, describe them.

B.6. Effluent Testing Data

All treatment works that have design flows greater than or equal to 0.1 million gallons per day must provide the effluent testing data in Question B.6. for each outfall through which effluent is discharged to waters of the United States in addition to the information required in Question A.12. Indicate on each page the outfall number (as assigned in question A.9) for which the data are provided. Do not include information about combined sewer overflow discharge points in question B.6. For specific instructions on completing the pollutant tables in question B.6, refer to Appendix A of these instructions.

Part C (Certification)

Before completing the Certification statement, review the Application Overview section on the cover page of Form 2A to make sure that you have completed all applicable sections of Form 2A, including any parts of the Supplemental Application Information packet.

All permit applications must be signed and certified. Also indicate in the boxes provided which sections of Form 2A you are submitting with this application.

An application submitted by a municipality, State, Federal, or other public agency must be signed by either a principal executive officer or ranking elected official. A principal executive officer of a Federal agency includes: (1) The chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

An application submitted by a corporation must be signed by a responsible corporate officer. A responsible corporate officer means: (1) A president, secretary, treasurer, or vice president in charge of a principal business function, or any other person who performs similar policy- or decision-making functions; or (2) the manager of manufacturing, production, or operating facilities employing more than 250 persons or having gross annual

sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

An application submitted by a partnership or sole proprietorship must be signed by a general partner or the proprietor, respectively.

Supplemental Application Information Packet

EPA has developed Form 2A in a modular format, consisting of two packets: the Basic Application Information packet and the Supplemental Application Information packet. As directed by the Application Overview section on page 1 of Form 2A, certain applicants will need to complete one or more parts of the Supplemental Application Information packet in addition to some or all of the Basic Application Information packet. Refer to the Application Overview section to determine which part(s) of Form 2A you must complete. The Supplemental Application Information packet is divided into the following parts:

- Part D Expanded Effluent Testing Data
- Part E Toxicity Testing Data
- Part F Industrial User Discharges and RCRA/CERCLA Wastes
- Part G Combined Sewer Systems

Part D (Expanded Effluent Testing Data)

A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

- Has a design flow rate greater than or equal to 1 mgd;
- Has an approved pretreatment program (or is required to develop a pretreatment program); or
- Is otherwise required by the permitting authority to provide the information

Complete Part D once for each outfall through which effluent is discharged to waters of the United States. Indicate on each page the outfall number (as assigned in question A.9 of the Basic Application Information packet) for which the data are provided. Using the blank rows provided on the form, submit any data the facility may have for pollutants not specifically listed in Part D. Note that the permitting authority may require additional testing on a case-by-case basis.

For specific instructions on completing the pollutant tables in Part D, refer to Appendix A of these instructions.

Part E (Toxicity Testing Data)

Treatment works meeting one or more of the following criteria must complete Part E (Toxicity Testing Data):

- Treatment works with a design flow rate greater than or equal to one mgd; or
- Treatment works with an approved pretreatment program (as well as those required to have one under 40 CFR Part 403); or
- Treatment works otherwise required by the permitting authority to submit the results of whole effluent toxicity testing.

Applicants completing Part E must submit the results from any whole effluent toxicity test conducted during the past four and one-half years that have not been reported or submitted to the permitting authority for each outfall discharging effluent to the waters of the United States. Do not include information on combined sewer overflows in this section. If the applicant conducted a whole effluent toxicity test during the past four and one-half years that revealed toxicity, then provide any information available on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.

Test results provided in Part E must be based on multiple species being tested quarterly for a minimum of one year or tested annually for four years. For multiple species, EPA requires a minimum of two species (e.g., vertebrates and invertebrates). The permitting authority may require the applicant to include other species (e.g., plants) as well. Applicants must provide these tests for acute and chronic toxicity depending on the receiving water dilution:

- All applicants must conduct acute toxicity testing.
- Chronic toxicity testing is also required if the dilution of the effluent is less than 100:1 at the edge of the mixing zone.

All data provided in Part E must be based on tests performed within four and one-half years prior to completing this application. The tests must have been conducted since the last NPDES permit issuance or permit modification under 40 CFR 122.62(a). In addition, applicants only need to submit data that have not previously been submitted to the permitting authority. Thus, if test data have already been submitted (within the last four and one-half years) in accordance with an issued NPDES permit, the treatment works may note the dates the tests were submitted and need not fill out the information requested in question E.2 for that test.

Additional copies of Part E may be used in submitting the required information. A permittee having no significant toxicity in the effluent over the past year and who has submitted all toxicity test results through the end of the calendar quarter preceding the time of permit application would need to supply no additional toxicity testing data as part of this application. Instead, the applicant should complete question E.4, which requests a summary of bioassay test information already submitted. (See below for more detailed instructions on completing question E.4)

Where test data are requested to be reported, the treatment works has the option of reporting the requested data on Form 2A or on reports supplied by the laboratories conducting the testing, provided the data requested are complete and presented in a logical fashion. The permitting authority reserves the right to request that the data be reported on Form 2A.

E.1. Required Tests

Provide the total number of chronic and acute whole effluent toxicity tests conducted in the past four and one-half years. A "chronic" toxicity test continues for a relatively long period of time, often one-tenth the life span of the organism or more. An "acute" toxicity test is one in which the effect is observed in 96 hours or less.

E.2. Individual Test Data

Complete E.2 for each test conducted in the last four and one-half years for which data has not been submitted. Use the columns provided on the form for each test and specify the test number at the top of each column. Use additional copies of question E.2 if more than three tests are being reported. The parameters listed on the form are based on EPA-recommended test methods. Permittees may be required by the permitting authority to submit additional test parameter data for the purposes of quality assurance.

If the treatment works is conducting whole effluent toxicity tests and reporting its results in accordance with a NPDES permit requirement, then the treatment works may note the dates the tests were submitted and need not fill out the information requested in question E.2. for those tests (unless otherwise required by the permitting authority).

a. Provide the information requested on the form for each test reported. Under "Test species & test method number," provide the scientific name of the organism used in the test and the test method number. The "Outfall number" reported must correlate to the outfall numbers listed in question A.9 of the Basic Application Information packet.

b. Provide the source of the toxicity test methods followed. In conducting the tests, the treatment works must use methods approved in accordance with 40 CFR Part 136. Note: Approved methods are currently under development.

c. Indicate whether 24-hour composite or grab samples were used for each test. For multiple grab samples, provide the number of grab samples used. Refer to Appendix A of the instructions for a definition of composite and grab samples.

d. Indicate whether the sample was taken before or after disinfection and/or after dechlorination.

- e. Provide a description of the point in the treatment process at which the sample was collected.
- f. Indicate whether the test was intended to assess chronic or acute toxicity.
- g. Indicate which type of test was performed. A "static" test is a test performed with a single constant volume of water. In a "static-renewal" test, the volume of water is renewed at discrete intervals. In a "flow-through" test, the volume of water is renewed continuously.
- h. Indicate whether laboratory water or the receiving water of the tested outfall was used as the source of dilution water. If laboratory water was used, provide the type of water used.
- i. Indicate whether fresh or salt water was used as the dilution water. For salt water, specify whether the salt water was natural or artificial (specify the type of artificial water used).
- j. For each concentration in the test series, provide the percentage of effluent used.
- k. Provide the minimum and maximum parameters measured during the test for pH, salinity, temperature, ammonia, and dissolved oxygen.
- l. Provide the results of each test performed. For acute toxicity tests, provide the percent survival of the test species in 100 percent effluent. Also provide the LC50 (Lethal Concentration to 50 percent) of the test. "LC50" is the effluent (or toxicant) concentration estimated to be lethal to 50 percent of the test organisms during a specific period. Provide the 95% confidence interval, control percent survival, and any other test results requested by the permitting authority in the space provided. For chronic toxicity tests, provide data at the most sensitive endpoint. While this is generally expressed as a "NOEC" (No Observed Effect Concentration), it may be expressed as an "Inhibition Concentration" (e.g., "IC25"--Inhibition Concentration to 25 percent). The NOEC is the highest measured concentration of an effluent (or a toxicant) at which no significant adverse effects are observed on the test organisms at a specific time of observation. The IC25 is the effluent (or toxicant) concentration estimated to cause a 25 percent reduction in reproduction, fecundity, growth, or other non-quantal biological measurements. Provide the control percent survival. Indicate any other test results in the space provided.
- m. Note whether reference toxicant data is available and indicate whether the reference toxicant test was within acceptable bounds. Provide the date on which the reference toxicant test was run. Also provide any other quality control/quality assurance information that may be requested by the permitting authority.

E.3. Toxicity Reduction Evaluation

A Toxicity Reduction Evaluation (TRE) is a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity. If the treatment works is conducting a TRE as part of a NPDES permit requirement or enforcement order, then you only need to provide the date of the last progress report concerning the TRE in the area reserved for details of the TRE.

E.4. Summary of Submitted Biomonitoring Test Information

As stated above, applicants that have already submitted the results of biomonitoring test information over the past four and one-half years do not need to resubmit this data with Form 2A. Instead, indicate in question E.4 the date you submitted each report and provide a summary of the test results for each report. Include in this summary the following information: the outfall number and collection dates of the samples tested, dates of testing, toxicity testing method(s) used, and a summary of the results from the test (e.g, 100% survival in 40% effluent).

Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

All treatment works receiving discharges from significant industrial users (SIUs) or facilities that receive RCRA, CERCLA, or other remedial wastes must complete Part F.

A "categorical industrial user" is an industrial user that is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N, which are technology-based standards developed by EPA setting industry-specific effluent limits. (A list of Industrial Categories subject to Categorical Pretreatment Standards is included in Appendix B.)

A "significant industrial user" is defined in 40 CFR 403.3(t) as an industrial user that:

- Is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; and
- Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (excluding sanitary, non-contact cooling and boiler blowdown wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment works; or is designated as such by the Control Authority as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the treatment works operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

An "industrial user" means any industrial or commercial entity that discharges wastewater that is not domestic wastewater. Domestic wastewater includes wastewater from connections to houses, hotels, non-industrial office buildings, institutions, or sanitary waste from industrial facilities. The number of "industrial users" is the total number of industrial and commercial users that discharge to the treatment works.

For the purposes of completing the application form, please provide information on non-categorical SIUs and categorical industrial users separately.

F.1. Pretreatment Program

Indicate whether the treatment works has an approved pretreatment program. An "approved pretreatment program" is a program administered by a treatment works that meets the criteria established in 40 CFR 403.8 and 403.9 and that has been approved by a Regional Administrator or State Director.

Note that if this treatment works has or is required to have a pretreatment program, you must also complete Parts D and E of the Supplemental Application Information packet.

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs)

Provide the number of SIUs and the number of CIUs that discharge to the treatment works.

Significant Industrial User (SIU) Information. All treatment works that receive discharges from SIUs must complete questions F.3 through F.8. If your treatment works receives wastewater from more than one SIU, complete questions F.3 through F.8 once for each SIU.

F.3. Significant Industrial User Information

Provide the name and mailing address of each SIU. Submit additional pages as necessary.

F.4. Industrial Processes

Describe the actual process(es) (rather than simply listing them) at the SIU that affect or contribute to the SIU's discharge. For example, in describing a metal finishing operation, include such information as how the product is cleaned prior to finishing, what type of plating baths are in operation (e.g., nickel, chromium), how paint is applied, and how the product is polished. Attach additional sheets if necessary.

F.5. Principal Product(s) and Raw Material(s)

List principal products that the SIU generates and the raw materials used to manufacture the products.

F.6. Flow Rate

"Process wastewater" means any water that, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. Indicate the average daily volume, in gallons per day, of process wastewater and non-process wastewater that the SIU discharges into the collection system. Specify whether the discharges are continuous or intermittent.

F.7. Pretreatment Standards

Indicate whether the SIU is subject to local limits and categorical pretreatment standards. "Local limits" are enforceable local requirements developed by treatment works to address Federal standards as well as state and

local regulations. "Categorical pretreatment standards" are national technology-based standards developed by EPA, setting industry-specific effluent limits. These standards are implemented by 40 CFR 403.6. If the treatment works is subject to categorical pretreatment standards, indicate the category and subcategory.

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU

Provide information concerning any problems the treatment works has experienced that are attributable to discharges from the SIUs. Problems may include upsets or interference at the plant, corrosion in the collection system, or other similar events in the past three years.

RCRA Hazardous Waste Received by Truck, Rail or Dedicated Pipeline. As defined in Section 1004(5) of the Resource Conservation and Recovery Act (RCRA), "Hazardous waste" means "a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical or infectious characteristics may:

- Cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
- Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."

Those solid wastes that are considered hazardous are listed under 40 CFR Part 261. Treatment works that accept hazardous wastes by truck, rail, or dedicated pipeline (a pipeline that is used to carry hazardous waste directly to a treatment works without prior mixing with domestic sewage) within the property boundary of the treatment works are considered to be hazardous waste treatment, storage, and disposal facilities (TSDFs) and, as such, are subject to regulations under RCRA. Under RCRA, mixtures of domestic sewage and other wastes that commingle in the treatment works collection system prior to reaching the property boundary, including those wastes that otherwise would be considered hazardous, are excluded from regulation under the domestic sewage exclusion. Hazardous wastes that are delivered directly to the treatment works by truck, rail, or dedicated pipeline do not fall within the exclusion. Hazardous wastes received by these routes may only be accepted by treatment works if the treatment works complies with applicable RCRA requirements for TSDFs.

Applicants completing questions F.9 through F.11 should have indicated all points at which RCRA hazardous waste enters the treatment works by truck, rail, or dedicated pipe in the map provided in question B.2 of the Basic Application Information packet, if applicable.

F.9. RCRA Waste

Indicate whether the treatment works currently receives or has received RCRA waste by truck, rail, or dedicated pipe in the past three years.

F.10. Waste Transport

Indicate the method by which RCRA waste is received at the treatment works.

F.11. Waste Description

Provide the EPA hazardous waste numbers, which are located in 40 CFR Part 261, Subparts C & D, and the amount (in volume or mass) received.

CERCLA (Superfund) Wastewater and RCRA Remediation/ Corrective Action Wastewater. Substances that are regulated under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) are described and listed in 40 CFR Part 302. Questions F.12 through F.15 apply to the type, origin, and treatment of CERCLA wastes currently (or expected to be) discharged to the treatment works.

F.12. CERCLA Waste

Indicate whether this treatment works currently receives waste from a CERCLA (Superfund) site or plans to accept waste from a CERCLA site in the next five years. If it does, provide the information requested in F.13 through F.15 once for each site.

F.13. Waste Origin

Provide information about the CERCLA site that is discharging waste to the treatment works. Information must include a description of the type of facility and an EPA identification number if one exists.

F.14. Pollutants

Provide a list of the pollutants that are or will be discharged by the CERCLA site and the volume and concentration of such pollutants.

F.15. Waste Treatment

Provide information concerning the treatment used (if any) by the CERCLA site to treat the waste prior to discharging it to the treatment works. The information should include a description of the treatment technology, information on the frequency of the discharge (continuous or intermittent) and any data concerning removal efficiency.

Part G. (Combined Sewer Systems)

A combined sewer system collects a mixture of both sanitary wastewater and storm water runoff.

G.1. System Map

Indicate on a system map all CSO discharge points. For each such point, indicate any sensitive use areas and any waters supporting threatened or endangered species that are potentially affected by CSOs. Sensitive use areas include beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters.

Applicants may provide the information requested in question G.1 on the map submitted in response to question B.2 in the Basic Application Information packet, if applicable.

All maps should be either on paper or other material appropriate for reproduction. If possible, all sheets should be approximately letter size with margins suitable for filing and binding. As few sheets should be used as necessary to show clearly what is involved. All discharge points should be identified by outfall number. Each sheet should be labeled with the applicant's name, NPDES permit number, location (city, county, or town), date of drawing, and designation of the number of sheets of each diagram as "page ____ of ____."

G.2. System Diagram

Diagram the location of combined and separate sanitary major sewer trunk lines and indicate any connections where separate sanitary sewers feed into the combined sewer system. Clearly indicate the location of all in-line and off-line storage structures, flow regulating devices, and pump stations.

The drawing should be either on paper or other material appropriate for reproduction. If possible, all sheets should be approximately letter size with margins suitable for filing and binding. As few sheets should be used as necessary to show clearly what is involved. All discharge points should be identified by outfall number. Each sheet should be labeled with the applicant's name, NPDES permit number, location (city, county, or town), date of drawing, and designation of the number of sheets of each diagram as "page ____ of ____".

CSO Outfalls. Fill out a copy of questions G.3 through G.6 once for each CSO discharge point. Attach additional pages as necessary.

G.3. Description of Outfall

a-f. Provide the outfall number and location (including city or town if applicable, state, county, and latitude and longitude to the nearest second). For subsurface discharges (e.g., discharges to lakes, estuaries, and oceans), provide the distance (in feet) of the discharge point from the shore and the depth (in feet) of the discharge point below the surface of the discharge point. Provide these distances at the lowest point of low tide. Indicate whether rainfall, CSO flow volume, CSO pollutant concentrations, receiving water quality, or CSO frequency were monitored during the past 12 months. In addition, provide the number of storm events monitored during the past 12 months.

G.4. CSO Events

- a. Provide the number of CSO events that have occurred in the past 12 months. Indicate whether this is an actual or approximate number.
- b. Provide the average duration (in hours) per CSO event. Indicate whether this is an actual or approximate value.
- c. Provide the average volume (in million gallons) of discharge per CSO incidents over the past 12 months. Indicate whether this is an actual or approximate number.
- d. Provide the minimum amount of rainfall that caused a CSO incident in the past 12 months.

G.5. Description of Receiving Waters

- a. List the name(s) of immediate receiving waters starting at the CSO discharge point and moving downstream. For example, "Control Ditch A, thence to Stream B, thence to River C, and thence to River D in the River Basin E."
- b. Provide the name of the watershed/river/stream system in which the receiving water (identified in question A.10.a) is located. If known, also provide the 14-digit watershed code assigned to this watershed by the U.S. Soil Conservation Service.
- c. Provide the name of the State Management/River Basin into which this outfall discharges. If known, also provide the 8-digit hydrologic cataloging unit code assigned by the U.S. Geological Survey.

G.6. CSO Operations

Provide a description of any known water quality impacts on the receiving water caused by CSOs from this discharge point. Water quality impacts include, but are not limited to, permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard.

Appendix A--Guidance for Completing the Effluent Testing Information; All Treatment Works

All applicants must provide data for each of the pollutants in question A.12 of the Basic Application Information packet. Some applicants must also provide data for the pollutants in question B.6 of the Basic Application Information packet and Part D of the Supplemental Application Information packet. Refer to the following table to determine which effluent testing information questions you must complete and to determine the number of pollutant scans on which to base your data. All applicants submitting effluent testing data must base this data on a minimum of three pollutant scans. All samples analyzed must be representative of the discharge from the sampled outfall.

Treatment works characteristics	Form 2A requirements	Minimum number of scans (See Appendix A)
Design flow rate less than 0.1 mgd, and Not required to have (or does not have) a Pretreatment program	Question A.12	3
Design flow rate less than 1 mgd but greater than 0.1 mgd, and Not required to have (or does not have) a pretreatment program	Question A.12 and Question B.6	3
Design flow rate greater than or equal to 1 mgd, or Has an approved pretreatment program or is required to develop a pretreatment program, or Otherwise required by the permitting authority to provide the data	Question A.12, Question B.6 and Part D of Supplemental Application Information Packet	3

If you have existing data that fulfills the requirements described below, you may use that data in lieu of conducting additional sampling. If you measure more than the required number of daily values for a pollutant and those values are representative of your wastestream, you must include them in the data you report. In addition, use the blank rows provided on the form to provide any existing sampling data that your facility may have for pollutants not listed in the appropriate sections. All data provided in the application must be based on samples taken within four and one half years prior to the time of this permit application.

Sampling data must be representative of the treatment works' discharge and take into consideration seasonal variations. At least two of the samples used to complete the effluent testing information questions must have been taken no fewer than 4 months and no more than 8 months apart. For example, one sample may be taken in April and another in October to meet this requirement. Applicants unable to meet this time requirement due to periodic, discontinuous, or seasonal discharges can obtain alternative guidance on this requirement from their permitting authority.

The collection of samples for the reported analyses should be supervised by a person experienced in performing wastewater sampling. Specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, and collection of duplicate samples. Samples should be taken at a time representative of normal operation. To the extent feasible, all processes that contribute to wastewater should be in operation and the treatment system should be operating properly with no system upsets. Samples should be collected from the center of the flow channel (where turbulence is at a maximum), at a location specified in the current NPDES permit, or at any location adequate for the collection of a representative sample.

A minimum of three grab samples must be collected for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, E. coli, and enterococci (applicants need only provide data on either fecal coliform or E. coli and enterococci). For all other pollutants, 24-hour composite samples must be collected. However, a minimum of one grab sample, instead of a 24-hour composite, may be taken for effluent from holding ponds or other impoundments that have a retention period greater than 24 hours.

Grab and composite samples are defined as follows:

- Grab sample: an individual sample of at least 100 milliliters collected randomly for a period not exceeding 15 minutes.
- Composite sample: a sample derived from two or more discrete samples collected at equal time intervals or collected proportional to the flow rate over the compositing period. The composite collection method may vary depending on pollutant characteristics or discharge flow characteristics.

The permitting authority may allow or establish appropriate site-specific sampling procedures or requirements, including sampling locations, the season in which sampling takes place, the duration between sampling events, and protocols for collecting samples under 40 CFR Part 136. Contact EPA or the State permitting authority for detailed guidance on sampling techniques and for answers to specific questions. The following instructions explain how to complete each of the columns in the pollutant tables in the effluent testing information sections of Form 2A.

Maximum Daily Discharge.

To determine the maximum daily discharge values, compare the daily discharge values from each of the sample events. The daily discharge is the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day. Report the highest total mass and highest concentration level from these samples.

- "Concentration" is the amount of pollutant that is present in a sample with respect to the size of the sample. The daily discharge concentration is the average concentration of the pollutant throughout the 24-hour period.
- "Mass" is calculated as the total mass of the pollutant discharged over the 24-hour period.
- All data must be reported as both concentration and mass (where appropriate). Use the following abbreviations in the columns headed "Units."

ppm--parts per million

gpd--gallons per day

mgd--million gallons per day
su--standard units
mg/l--milligrams per liter
ppb--parts per billion
ug/l--micrograms per liter
lbs--pounds
ton--tons (English tons)
mg--milligrams
g--grams
kg--kilograms
T--tonnes (metric tons)

Average Daily Discharge.

The average daily discharge is determined by calculating the arithmetic mean daily pollutant concentration and the arithmetic mean daily total mass of the pollutant from each of the sample events within the four and one half years prior to this permit application. Report the concentration, mass, and units used under the Average Daily Discharge column, along with the number of samples on which the average is based. Use the unit abbreviations shown above.

If data requested in Form 2A have been reported on the treatment works' Discharge Monitoring Reports (DMRs), you may compile such data and report it under the maximum daily discharge and the average daily discharge columns of the form.

Analytical Method.

All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. Applicants should use methods that enable pollutants to be detected at levels adequate to meet water quality-based standards. Where no approved method can detect a pollutant at the water quality-based standards level, the most sensitive approved method should be used. If the applicant believes that an alternative method should be used (e.g., due to matrix interference), the applicant should obtain prior approval from the permitting authority. If an alternative method is specified in the existing permit, the applicant should use that method unless otherwise directed by the permitting authority. Where no approved analytical method exists, an applicant may use a suitable method but must provide a description of the method. For the purposes of the application, "suitable method" means a method that is sufficiently sensitive to measure as close to the water quality-based standard as possible.

Indicate the method used for each pollutant in the "Analytical Method" column of the pollutant tables. If a method has not been approved for a pollutant for which you are providing data, you may use a suitable method to measure the concentration of the pollutant in the discharge, and provide a detailed description of the method used or a reference to the published method. The description must include the sample holding time, preservation techniques, and the quality control measures used. In such cases, indicate the method used and attach to the application a narrative description of the method used.

Reporting Levels.

The applicant should provide the method detection limit (MDL), minimum level (ML), or other designated method endpoint reflecting the precision of the analytical method used.

All analytical results must be reported using the actual numeric values determined by the analysis. In other words, even where analytical results are below the detection or quantitation level of the method used, the actual data should be reported, rather than reporting "non-detect" ("ND") or "zero" ("0"). Because the endpoint of the method has also been reported along with the test results, the permitting authority will be able to determine if the data are in the "non-detect" or "below quantitation" range.

For any dilutions made and any problems encountered in the analysis, the applicant should attach an explanation and any supporting documentation with the application. For GC/MS, report all results found to be present by spectral confirmation (i.e., quantitation limits or detection limits should not be used as a reporting threshold for GC/MS).

Total Recoverable Metals.

Total recoverable metals are measured from unfiltered samples using EPA methods specified in 40 CFR Part 136.3. A digestion procedure is used to solubilize suspended materials and destroy possible organic metal complexes. The method measures dissolved metals plus those metals recovered from suspended particles by the method digestion.

Appendix B--Industrial Categories Subject to National Categorical Pretreatment Standards

Industrial Categories with Pretreatment Standards in Effect

Aluminum Forming	Metal Finishing
Asbestos Manufacturing	Metal Molding and Casting
Battery Manufacturing	Nonferrous Metals Forming and Metal Powders
Builder's Paper and Board Mills	Nonferrous Metals Manufacturing
Carbon Black Manufacturing	Organic Chemicals, Plastics and Synthetic Fibers
Coil Coating	Paint Formulating
Copper Forming	Paving and Roofing
Electrical and Electronic Components	Pesticide Manufacturing
Electroplating	Petroleum Refining
Feedlots	Pharmaceutical Manufacturing
Ferroalloy Manufacturing	Porcelain Enameling
Fertilizer Manufacturing	Pulp, Paper and Paperboard
Glass Manufacturing	Rubber Manufacturing
Grain Mills Manufacturing	Soap and Detergents Manufacturing
Ink Formulating	Steam Electric Power Generating
Inorganic Chemicals	Sugar Processing
Iron and Steel Manufacturing	Timber Products Manufacturing
Landfills	Waste Combustors
Leather Tanning and Finishing	

Industrial Categories with Effluent Guidelines Currently Under Development

Pulp, Paper, and Paperboard
Pesticide Formulating, Packaging, and Repackaging
Centralized Waste Treatment
Metal Products and Machinery
Transportation Equipment Cleaning

FORM
2A
NPDES**NPDES FORM 2A APPLICATION OVERVIEW****APPLICATION OVERVIEW**

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

- A. Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow \geq 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
1. Has a design flow rate greater than or equal to 1 mgd,
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
1. Has a design flow rate greater than or equal to 1 mgd,
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

FACILITY NAME AND PERMIT NUMBER:

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application information packet.

A.1. Facility Information.

Facility name _____

Mailing Address _____

Contact person _____

Title _____

Telephone number _____

Facility Address _____
(not P.O. Box) _____

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name _____

Mailing Address _____

Contact person _____

Title _____

Telephone number _____

Is the applicant the owner or operator (or both) of the treatment works?

_____ owner _____ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

_____ facility _____ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES _____ PSD _____

UIC _____ Other _____

RCRA _____ Other _____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total population served _____			

FACILITY NAME AND PERMIT NUMBER:

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes _____ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes _____ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate _____ mgd

Two Years Ago Last Year This Year

b. Annual average daily flow rate _____ mgd

c. Maximum daily flow rate _____ mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

_____ Separate sanitary sewer _____ %

_____ Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? _____ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent _____

ii. Discharges of untreated or partially treated effluent _____

iii. Combined sewer overflow points _____

iv. Constructed emergency overflows (prior to the headworks) _____

v. Other _____

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes _____ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes _____ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes _____ No

FACILITY NAME AND PERMIT NUMBER:

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If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter name: _____

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: _____

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes _____ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

FACILITY NAME AND PERMIT NUMBER:

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WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number _____
- b. Location _____
(City or town, if applicable) (Zip Code)

(County) (State)

(Latitude) (Longitude)
- c. Distance from shore (if applicable) _____ ft.
- d. Depth below surface (if applicable) _____ ft.
- e. Average daily flow rate _____ mgd
- f. Does this outfall have either an intermittent or a periodic discharge?
_____ Yes _____ No (go to A.9.g.)
If yes, provide the following information:
Number of times per year discharge occurs: _____
Average duration of each discharge: _____
Average flow per discharge: _____ mgd
Months in which discharge occurs: _____
- g. Is outfall equipped with a diffuser? _____ Yes _____ No

A.10. Description of Receiving Waters.

- a. Name of receiving water _____
- b. Name of watershed (if known) _____
United States Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin (if known): _____
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____
- d. Critical low flow of receiving stream (if applicable):
acute _____ cfs chronic _____ cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): _____ mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

Primary Secondary
 Advanced Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD₅ removal or Design CBOD₅ removal _____ %
 Design SS removal _____ %
 Design P removal _____ %
 Design N removal _____ %
 Other _____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

If disinfection is by chlorination, is dechlorination used for this outfall? Yes No

d. Does the treatment plant have post aeration? Yes No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: _____

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)		s.u.			
pH (Maximum)		s.u.			
Flow Rate					
Temperature (Winter)					
Temperature (Summer)					

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5						
	CBOD-5						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

**END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

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BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

_____gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- a. The area surrounding the treatment plant, including all unit processes.
- b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- c. Each well where wastewater from the treatment plant is injected underground.
- d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g. chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ___Yes ___No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

- a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

- b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

___Yes ___No

FACILITY NAME AND PERMIT NUMBER:

c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule	Actual Completion
	MM / DD / YYYY	MM / DD / YYYY
- Begin construction	___/___/___	___/___/___
- End construction	___/___/___	___/___/___
- Begin discharge	___/___/___	___/___/___
- Attain operational level	___/___/___	___/___/___

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ___ Yes ___ No

Describe briefly: _____

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: _____

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)							
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN							
TOTAL KJELDAHL NITROGEN (TKN)							
NITRATE PLUS NITRITE NITROGEN							
OIL and GREASE							
PHOSPHORUS (Total)							
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER							

**END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

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BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

_____ Basic Application Information packet

_____ Supplemental Application Information packet:

_____ Part D (Expanded Effluent Testing Data)

_____ Part E (Toxicity Testing: Biomonitoring Data)

_____ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

_____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title _____

Signature _____

Telephone number _____

Date signed _____

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		

METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.

ANTIMONY												
ARSENIC												
BERYLLIUM												
CADMIUM												
CHROMIUM												
COPPER												
LEAD												
MERCURY												
NICKEL												
SELENIUM												
SILVER												
THALLIUM												
ZINC												
CYANIDE												
TOTAL PHENOLIC COMPOUNDS												
HARDNESS (AS CaCO ₃)												

Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN											
ACRYLONITRILE											
BENZENE											
BROMOFORM											
CARBON TETRACHLORIDE											
CLOROBENZENE											
CHLORODIBROMO-METHANE											
CHLOROETHANE											
2-CHLORO-ETHYLVINYL ETHER											
CHLOROFORM											
DICHLOROBROMO-METHANE											
1,1-DICHLOROETHANE											
1,2-DICHLOROETHANE											
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROETHYLENE											
1,2-DICHLOROPROPANE											
1,3-DICHLORO-PROPYLENE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE											
1,1,2,2-TETRACHLORO-ETHANE											
TETRACHLORO-ETHYLENE											
TOLUENE											

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL	
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples			
1,1,1-TRICHLOROETHANE												
1,1,2-TRICHLOROETHANE												
TRICHLORETHYLENE												
VINYL CHLORIDE												

Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.

--	--	--	--	--	--	--	--	--	--	--	--	--

ACID-EXTRACTABLE COMPOUNDS

P-CHLORO-M-CRESOL												
2-CHLOROPHENOL												
2,4-DICHLOROPHENOL												
2,4-DIMETHYLPHENOL												
4,6-DINITRO-O-CRESOL												
2,4-DINITROPHENOL												
2-NITROPHENOL												
4-NITROPHENOL												
PENTACHLOROPHENOL												
PHENOL												
2,4,6-TRICHLOROPHENOL												

Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.

--	--	--	--	--	--	--	--	--	--	--	--	--

BASE-NEUTRAL COMPOUNDS.

ACENAPHTHENE												
ACENAPHTHYLENE												
ANTHRACENE												
BENZIDINE												
BENZO(A)ANTHRACENE												

BENZO(A)PYRENE												
----------------	--	--	--	--	--	--	--	--	--	--	--	--

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL	
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples			
3,4 BENZO-FLUORANTHENE												
BENZO(GH)PERYLENE												
BENZO(K)FLUORANTHENE												
BIS (2-CHLOROETHOXY) METHANE												
BIS (2-CHLOROETHYL)-ETHER												
BIS (2-CHLOROISO-PROPYL) ETHER												
BIS (2-ETHYLHEXYL) PHTHALATE												
4-BROMOPHENYL PHENYL ETHER												
BUTYL BENZYL PHTHALATE												
2-CHLORONAPHTHALENE												
4-CHLORPHENYL PHENYL ETHER												
CHRYSENE												
DI-N-BUTYL PHTHALATE												
DI-N-OCTYL PHTHALATE												
DIBENZO(A,H) ANTHRACENE												
1,2-DICHLOROBENZENE												
1,3-DICHLOROBENZENE												
1,4-DICHLOROBENZENE												
3,3-DICHLOROBENZIDINE												
DIETHYL PHTHALATE												
DIMETHYL PHTHALATE												
2,4-DINITROTOLUENE												
2,6-DINITROTOLUENE												

1,2-DIPHENYLHYDRAZINE

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE											
FLUORENE											
HEXACHLOROBENZENE											
HEXACHLOROBUTADIENE											
HEXACHLOROCYCLO-PENTADIENE											
HEXACHLOROETHANE											
INDENO(1,2,3-CD)PYRENE											
ISOPHORONE											
NAPHTHALENE											
NITROBENZENE											
N-NITROSODI-N-PROPYLAMINE											
N-NITROSODI- METHYLAMINE											
N-NITROSODI-PHENYLAMINE											
PHENANTHRENE											
PYRENE											
1,2,4-TRICHLOROBENZENE											

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

--	--	--	--	--	--	--	--	--	--	--	--

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

--	--	--	--	--	--	--	--	--	--	--	--

**END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE**

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

____ chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: _____ Test number: _____ Test number: _____

a. Test information.

Test species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			

b. Give toxicity test methods followed.

Manual title			
Edition number and year of publication			
Page number(s)			

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite			
Grab			

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection			
After disinfection			
After dechlorination			

FACILITY NAME AND PERMIT NUMBER:

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Test number: _____ Test number: _____ Test number: _____

e. Describe the point in the treatment process at which the sample was collected.

Sample was collected:			
-----------------------	--	--	--

f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.

Chronic toxicity			
Acute toxicity			

g. Provide the type of test performed.

Static			
Static-renewal			
Flow-through			

h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.

Laboratory water			
Receiving water			

i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.

Fresh water			
Salt water			

j. Give the percentage effluent used for all concentrations in the test series.

k. Parameters measured during the test. (State whether parameter meets test method specifications)

pH			
Salinity			
Temperature			
Ammonia			
Dissolved oxygen			

l. Test Results.

Acute:			
Percent survival in 100% effluent	%	%	%
LC ₅₀			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

FACILITY NAME AND PERMIT NUMBER:

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Chronic:

NOEC	%	%	%
IC ₂₅	%	%	%
Control percent survival	%	%	%
Other (describe)			

m. Quality Control/Quality Assurance.

Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___ Yes ___ No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: _____ (MM/DD/YYYY)

Summary of results: (see instructions)

**END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE.**

FACILITY NAME AND PERMIT NUMBER:

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SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. **Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

____ Yes ____ No

F.2. **Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs).** Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. _____

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: _____

Mailing Address: _____

F.4. **Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

F.5. **Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): _____

Raw material(s): _____

F.6. **Flow Rate.**

a. **Process wastewater flow rate.** Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (____ continuous or ____ intermittent)

b. **Non-process wastewater flow rate.** Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (____ continuous or ____ intermittent)

F.7. **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits ____ Yes ____ No

b. Categorical pretreatment standards ____ Yes ____ No

If subject to categorical pretreatment standards, which category and subcategory?

FACILITY NAME AND PERMIT NUMBER:

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

Yes No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?
 Yes No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

Truck Rail Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

<u>EPA Hazardous Waste Number</u>	<u>Amount</u>	<u>Units</u>
-----	-----	-----
-----	-----	-----
-----	-----	-----

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?
 Yes (complete F.13 through F.15.) No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

Yes No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

Continuous Intermittent If intermittent, describe discharge schedule.

**END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

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SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

- a. All CSO discharge points.
- b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).
- c. Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:

- a. Locations of major sewer trunk lines, both combined and separate sanitary.
- b. Locations of points where separate sanitary sewers feed into the combined sewer system.
- c. Locations of in-line and off-line storage structures.
- d. Locations of flow-regulating devices.
- e. Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

- a. Outfall number _____
- b. Location _____
(City or town, if applicable) (Zip Code)

(County) (State)

(Latitude) (Longitude)
- c. Distance from shore (if applicable) _____ ft.
- d. Depth below surface (if applicable) _____ ft.
- e. Which of the following were monitored during the last year for this CSO?
 Rainfall CSO pollutant concentrations CSO frequency
 CSO flow volume Receiving water quality
- f. How many storm events were monitored during the last year? _____

G.4. CSO Events.

- a. Give the number of CSO events in the last year.
_____ events (___ actual or ___ approx.)
- b. Give the average duration per CSO event.
_____ hours (_____ actual or _____ approx.)

FACILITY NAME AND PERMIT NUMBER:

- c. Give the average volume per CSO event.
_____ million gallons (_____ actual or _____ approx.)
- d. Give the minimum rainfall that caused a CSO event in the last year.
_____ inches of rainfall

G.5. Description of Receiving Waters.

- a. Name of receiving water: _____
- b. Name of watershed/river/stream system: _____

United States Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

**END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE.**

Letters for Industrial Storm Water No Exposure Certifications

No Exposure Certification Comment Letter to Owner

Regional DEQ Letterhead

DATE

(OWNER'S ADDRESS)

RE: Facility Name

Dear :

This is to advise you that your No Exposure Certification form for exemption from VPDES storm water permitting is considered incomplete. We cannot accept your No Exposure Certification until it is complete. Please provide the following information to complete the form:

- a.
- b.
- c.

If you have any questions about this letter, please call me at () XXX-XXXX.

Sincerely,

[Permit Writer]
Environmental Engineer

cc: Compliance Auditor

No Exposure Certification Acceptance Letter

Regional Office Letterhead

Date

(OWNER'S ADDRESS)

RE: Facility Name

Dear :

Your No Exposure Certification form has been reviewed and is acceptable.

We remind you that you are obligated to submit the No Exposure Certification form once every five years to the Department and, if requested, to the operator of the local municipal separate storm sewer system into which the facility discharges (if applicable). If conditions change at the facility, and any industrial materials or activities become exposed to storm water, you must obtain coverage under a VPDES permit prior to any point source discharge of storm water from the facility.

If you have any questions, please feel free to call me at () XXX-XXXX.

Sincerely,

[Permit Writer]
Environmental Engineer

Notice of Intent to Reject the No Exposure Certification

Regional Letterhead

Date

(OWNER'S ADDRESS)

RE: Facility Name

Dear :

The Virginia Department of Environmental Quality has rejected your No Exposure Certification submittal for exemption from VPDES storm water permitting based on the information contained on your form **(or on a site visit to the facility, or a combination of the two)**. You must apply for a VPDES storm water permit within the next 30 days.

The exposed industrial materials or activities are as follows:

If you eliminate the exposure at the facility in the future, you may resubmit the No Exposure Certification form and terminate the VPDES storm water permit.

Please call me at () XXX-XXXX if you have any questions.

Sincerely,

[Regional Permit Manager]
Regional Permit Manager

**VIRGINIA DEQ NO EXPOSURE CERTIFICATION
FOR EXCLUSION FROM VPDES STORM WATER PERMITTING**

Submission of this **No Exposure Certification** constitutes notice that the entity identified below does not require permit authorization for its storm water discharges associated with industrial activity under the VPDES Permit Program due to the existence of a condition of **No Exposure**.

A condition of **No Exposure** exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. A storm resistant shelter is not required for the following industrial materials and activities:

- drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves;
- adequately maintained vehicles used in material handling; and
- final products, other than products that would be mobilized in storm water discharges (e.g., rock salt).

A No Exposure Certification must be provided for each facility qualifying for the No Exposure exclusion. In addition, the exclusion from VPDES permitting is available on a facility-wide basis only, not for individual outfalls. If any industrial activities or materials are or will be exposed to precipitation, the facility is not eligible for the No Exposure exclusion.

By signing and submitting this No Exposure Certification form, the entity below is certifying that a condition of No Exposure exists at its facility or site, and is obligated to comply with the terms and conditions at 9 VAC 25-31-120.F (the VPDES Permit Regulation).

Please Type or Print All Information. ALL INFORMATION ON THIS FORM MUST BE PROVIDED.

1. Facility Owner Information

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

2. Facility/Site Location Information

Facility Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Latitude: _____ Longitude: _____

3. Was the facility or site previously covered under a VPDES storm water permit? Yes No

If "Yes", enter the VPDES permit number: _____

4. SIC/Activity Codes: Primary: _____ Secondary (if applicable): _____

5. Total size of facility/site associated with industrial activity: _____ acres

6. Have you paved or roofed over a formerly exposed pervious area in order to qualify for the No Exposure exclusion?
Yes No

If "Yes", please indicate approximately how much area was paved or roofed. Completing this question does not disqualify you for the No Exposure exclusion. However, DEQ may use this information in considering whether storm water discharges from your site are likely to have an adverse impact on water quality, in which case you could be required to obtain permit coverage.

Less than one acre One to five acres More than five acres

7. Exposure Checklist

Are any of the following materials or activities exposed to precipitation, now or in the foreseeable future? (Please check either "Yes" or "No" in the appropriate box.) **If you answer "Yes" to any of these questions (1) through (11), you are not eligible for the No Exposure exclusion.**

	Yes	No
1. Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to storm water	<input type="checkbox"/>	<input type="checkbox"/>
2. Materials or residuals on the ground or in storm water inlets from spill/leaks	<input type="checkbox"/>	<input type="checkbox"/>
3. Materials or products from past industrial activity	<input type="checkbox"/>	<input type="checkbox"/>
4. Material handling equipment (except adequately maintained vehicles)	<input type="checkbox"/>	<input type="checkbox"/>
5. Materials or products during loading/unloading or transporting activities	<input type="checkbox"/>	<input type="checkbox"/>
6. Materials or products stored outdoors (except final products intended for outside use [e.g., new cars] where exposure to storm water does not result in the discharge of pollutants)	<input type="checkbox"/>	<input type="checkbox"/>
7. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers	<input type="checkbox"/>	<input type="checkbox"/>
8. Materials or products handled/stored on roads or railways owned or maintained by the discharger	<input type="checkbox"/>	<input type="checkbox"/>
9. Waste material (except waste in covered, non-leaking containers [e.g., dumpsters])	<input type="checkbox"/>	<input type="checkbox"/>
10. Application or disposal of process wastewater (unless otherwise permitted)	<input type="checkbox"/>	<input type="checkbox"/>
11. Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the storm water outflow	<input type="checkbox"/>	<input type="checkbox"/>

8. Certification Statement

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of "no exposure" and obtaining an exclusion from VPDES storm water permitting.

I certify under penalty of law that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility or site identified in this document (except as allowed under 9 VAC 25-31-120.F).

I understand that I am obligated to submit a No Exposure Certification form once every five years to the Department and, if requested, to the operator of the local municipal separate storm sewer system (MS4) into which the facility discharges (where applicable). I understand that I must allow the Department, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under a VPDES permit prior to any point source discharge of storm water from the facility.

Additionally, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: _____

Print Title: _____

Signature: _____

Date: _____

For Department of Environmental Quality Use Only

Accepted/Not Accepted by: _____

Date : _____

Instructions for the NO EXPOSURE CERTIFICATION For Exclusion from VPDES Storm Water Permitting

Who May File a No Exposure Certification

In accordance with the Clean Water Act and the State Water Control Law, all industrial facilities that discharge storm water associated with industrial activity (as defined at 9 VAC 25-31-10) must apply for coverage under a VPDES permit. However, permit coverage is not required for industrial activity storm water discharges from facilities in industrial activity categories 1-9 and 11 (under the definition of "storm water discharge associated with industrial activity") if the discharger can certify that a condition of "no exposure" exists at the facility or site.

Storm water discharges from construction activities (as defined in industrial activity category 10 and in "storm water discharge associated with small construction activity") are not eligible for the no exposure exclusion.

Obtaining and Maintaining the No Exposure Exclusion

This form is used to certify that a condition of no exposure exists at the industrial facility or site described herein. This certification must be re-submitted at least once every five years.

The industrial facility owner must maintain a condition of no exposure at the facility or site in order for the no exposure exclusion to remain applicable. If conditions change resulting in the exposure of materials and/or activities to storm water, the facility owner must immediately obtain coverage under a VPDES storm water permit.

Completing The Form

Please type or print all information. ALL INFORMATION ON THE FORM MUST BE PROVIDED. One form must be completed for each facility or site for which you are seeking to certify a condition of no exposure.

Section 1 Facility Owner Information

Give the legal name (no nicknames or colloquial names) of the person, firm, public organization, or any other entity that owns the facility or site described in this certification. The name of the owner may or may not be the same as the name of the facility. The owner is the legal entity that controls the facility's operation, rather than the plant or site manager. Enter the complete address and telephone number of the owner.

Section 2 Facility Location Information

Enter the facility's official or legal name and complete street address. If the facility lacks a street address, enter the latitude and longitude of the approximate center of the facility in degrees/minutes/seconds to the nearest 15 seconds.

Section 3 Previous VPDES Permit Coverage

Indicate whether the facility was previously covered under a VPDES storm water permit. If so, include the permit number.

Section 4 Standard Industrial Classification Codes

Enter the 4-digit SIC code which identifies the facility's primary activity, and second 4-digit SIC code identifying the facility's secondary activity, if applicable. SIC codes can be obtained from the Office of Management and Budget Standard Industrial Classification Manual, 1987.

Section 5 Facility Industrial Activity Area

Enter the total size of the site associated with industrial activity in acres.

Section 6 Formerly Exposed Pervious Area

Indicate whether you have paved or roofed over a formerly exposed, pervious area (i.e., lawn, meadow, dirt or gravel road/parking lot) in order to qualify for no exposure. If "yes", also indicate approximately how much area was paved or roofed over and is now impervious area.

Section 7 Exposure Checklist

Check "Yes" or "No" as appropriate to describe the exposure conditions at your facility. If you answer "Yes" to **ANY** of the questions (1) through (11) in this section, a potential for exposure exists at your site and you cannot certify to a condition of no exposure. You must obtain (or already have) coverage under a VPDES storm water permit. After obtaining permit coverage, you can institute modifications to eliminate the potential for a discharge of storm water exposed to industrial activity, and then certify to a condition of no exposure.

Section 8 Certification

State statutes provide for severe penalties for submitting false information on this application form. State regulations require this No Exposure Certification to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, State, Federal, or other public facility: by either a principal executive or ranking elected official.

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? Yes No

Will this facility derive a material from sewage sludge? Yes No

If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? Yes No

Will sewage sludge from this facility be applied to the land? Yes No

If you answered No to both questions above, skip Section C.

If you answered Yes to either, answer the following three questions:

a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
 Yes No

b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? Yes No

c. Will sewage sludge from this facility be sent to another facility for treatment or blending? Yes No

If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? Yes No

If Yes, complete Section D (Surface Disposal).

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.

- a. Facility name: _____
- b. Contact person: _____
Title: _____
Phone: () _____
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Facility location:
Street or Route #: _____
County: _____
City or Town: _____ State: _____ Zip: _____
- e. Is this facility a Class I sludge management facility? Yes No
- f. Facility design flow rate: _____ mgd
- g. Total population served: _____
- h. Indicate the type of facility:
 Publicly owned treatment works (POTW)
 Privately owned treatment works
 Federally owned treatment works
 Blending or treatment operation
 Surface disposal site
 Other (describe): _____

2. Applicant Information. If the applicant is different from the above, provide the following:

- a. Applicant name: _____
- b. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- c. Contact person: _____
Title: _____
Phone: () _____
- d. Is the applicant the owner or operator (or both) of this facility? owner operator
- e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one) facility applicant

3. Permit Information.

- a. Facility's VPDES permit number (if applicable): _____
- b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? Yes No If yes, describe:

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
- a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
 - b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.
6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.
7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? Yes No
If yes, provide the following for each contractor (attach additional pages if necessary).
Name: _____
Mailing address: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
Phone: () _____
Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge: _____

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

- Section A (General Information)
- Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
- Section C (Land Application of Bulk Sewage Sludge)
- Section D (Surface Disposal)

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title _____

Signature _____ Date Signed _____

Telephone number _____

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

**SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION
OF A MATERIAL DERIVED FROM SEWAGE SLUDGE**

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
Total dry metric tons per 365-day period generated at your facility: _____ dry metric tons

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
 - a. Facility name: _____
 - b. Contact Person: _____
Title: _____
Phone () _____
 - c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
 - d. Facility Address: _____
(not P.O. Box) _____
 - e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons
 - f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. Treatment Provided at Your Facility.
 - a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
___ Class A ___ Class B ___ Neither or unknown
 - b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: _____

 - c. Which vector attraction reduction option is met for the sewage sludge at your facility?
___ Option 1 (Minimum 38 percent reduction in volatile solids)
___ Option 2 (Anaerobic process, with bench-scale demonstration)
___ Option 3 (Aerobic process, with bench-scale demonstration)
___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
___ Option 5 (Aerobic processes plus raised temperature)
___ Option 6 (Raise pH to 12 and retain at 11.5)
___ Option 7 (75 percent solids with no unstabilized solids)
___ Option 8 (90 percent solids with unstabilized solids)
___ None or unknown
 - d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: _____

 - e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: _____

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
 - a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _
_____ dry metric tons
 - b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
___ Yes ___ No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: _____ dry metric tons
- b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

- a. Receiving facility name: _____
- b. Facility contact: _____
Title: _____
Phone: () _____
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____ dry metric tons
- e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

<u>Permit Number:</u>	<u>Type of Permit:</u>
_____	_____
_____	_____

- f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? Yes No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
 Class A Class B Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: _____

- g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? Yes No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
 Option 1 (Minimum 38 percent reduction in volatile solids)
 Option 2 (Anaerobic process, with bench-scale demonstration)
 Option 3 (Aerobic process, with bench-scale demonstration)
 Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
 Option 5 (Aerobic processes plus raised temperature)
 Option 6 (Raise pH to 12 and retain at 11.5)
 Option 7 (75 percent solids with no unstabilized solids)
 Option 8 (90 percent solids with unstabilized solids)
 None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: _____

- h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
 Yes No
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above: _____

- i. If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

- j. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? Yes No
If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

- k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? Yes No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. _____

7. Land Application of Bulk Sewage Sludge.

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: _____ dry metric tons
- b. Do you identify all land application sites in Section C of this application? Yes No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).
- c. Are any land application sites located in States other than Virginia? Yes No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal.

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons
- b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
 Yes No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.
- c. Site name or number: _____
- d. Contact person: _____
Title: _____
Phone: () _____
Contact is: Site Owner Site operator
- e. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons
- g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

<u>Permit Number:</u>	<u>Type of Permit:</u>
_____	_____
_____	_____

9. Incineration.

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons
- b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
 Yes No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.
- c. Incinerator name or number: _____

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

- d. Contact person: _____
 Title: _____
 Phone: () _____
 Contact is: Incinerator Owner Incinerator Operator
- e. Mailing address.
 Street or P.O. Box: _____
 City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons
- g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:
Permit Number: _____ Type of Permit: _____

10. Disposal in a Municipal Solid Waste Landfill.

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

- a. Landfill name: _____
- b. Contact person: _____
 Title: _____
 Phone: () _____
 Contact is: Landfill Owner Landfill Operator
- c. Mailing address.
 Street or P.O. Box: _____
 City or Town: _____ State: _____ Zip: _____
- d. Landfill location.
 Street or Route #: _____
 County: _____
 City or Town: _____ State: _____ Zip: _____
- e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill: _____ dry metric tons
- f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:
Permit Number: _____ Type of Permit: _____

- g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
 Yes No
- h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? Yes No
- i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? Yes No

Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported. _____

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

- The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or
- The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or
- You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.
 - a. Site name or number: _____
 - b. Site location (Complete i and ii)
 - i. Street or Route#: _____
 County: _____
 City or Town: _____ State: _____ Zip: _____
 - ii. Latitude: _____ Longitude: _____
 Method of latitude/longitude determination
 _____ USGS map _____ Filed survey _____ Other
 - c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.
 - a. Are you the owner of this land application site? Yes No
 - b. If no, provide the following information about the owner:
 Name: _____
 Street or P.O. Box: _____
 City or Town: _____ State: _____ Zip: _____
 Phone: () _____

3. Applier Information:
 - a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? Yes No
 - b. If no, provide the following information for the person who applies the sewage sludge:
 Name: _____
 Street or P.O. Box: _____
 City or Town: _____ State: _____ Zip: _____
 Phone: () _____
 - c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:

Permit Number:	Type of Permit:
_____	_____
_____	_____

4. Site Type. Identify the type of land application site from among the following:
 Agricultural land Reclamation site Forest
 Public contact site Other. Describe _____

5. Vector Attraction Reduction.
 Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
 Yes No If yes, answer a and b.
 - a. Indicate which vector attraction reduction option is met:
 Option 9 (Injection below land surface)
 Option 10 (Incorporation into soil within 6 hours)
 - b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

6. Cumulative Loadings and Remaining Allotments.

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? Yes No

If no, sewage sludge subject to the CPLRs may not be applied to this site.

If yes, provide the following information:

Permitting authority: _____

Contact person: _____

Phone: () _____

b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? Yes No If no, skip the rest of Question 6. If yes, answer questions c - e.

c. Site size, in hectares: _____ (one hectare = 2.471 acres)

d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

Facility name: _____

Facility contact: _____

Title: _____

Phone: () _____

Mailing address.

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	<u>Cumulative loading</u>	<u>Allotment remaining</u>
Arsenic	_____	_____
Cadmium	_____	_____
Copper	_____	_____
Lead	_____	_____
Mercury	_____	_____
Nickel	_____	_____
Selenium	_____	_____
Zinc	_____	_____

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter.

PCBs (mg/kg)	_____
pH (S. U.)	_____
Percent Solids (%)	_____
Ammonium Nitrogen (mg/kg)	_____
Nitrate Nitrogen (mg/kg)	_____
Total Kjeldahl Nitrogen (mg/kg)	_____
Total Phosphorus (mg/kg)	_____
Total Potassium (mg/kg)	_____
Alkalinity as CaCO ₃ (mg/kg)	_____

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent CaCO₃.

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

8. Storage Requirements.
Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.
Proposed sludge storage facilities must also provide the following information:
- a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
 - 1) Water wells, abandoned or operating
 - 2) Surface waters
 - 3) Springs
 - 4) Public water supply(s)
 - 5) Sinkholes
 - 6) Underground and/or surface mines
 - 7) Mine pool (or other) surface water discharge points
 - 8) Mining spoil piles and mine dumps
 - 9) Quarry(s)
 - 10) Sand and gravel pits
 - 11) Gas and oil wells
 - 12) Diversion ditch(s)
 - 13) Agricultural drainage ditch(s)
 - 14) Occupied dwellings, including industrial and commercial establishments
 - 15) Landfills or dumps
 - 16) Other unlined impoundments
 - 17) Septic tanks and drainfields
 - 18) Injection wells
 - 19) Rock outcrops
 - b. A topographic map of sufficient detail to clearly show the following information:
 - 1) Maximum and minimum percent slopes
 - 2) Depressions on the site that may collect water
 - 3) Drainageways that may attribute to rainfall run-on to or runoff from this site
 - 4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding
 - c. Data and specifications for the storage facility lining material.
 - d. Plan and cross-sectional views of the storage facility.
 - e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.
9. Land Area Requirements. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application.
10. Landowner Agreement Forms. Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant.
11. Ground Water Monitoring.
Are any ground water monitoring data available for this land application site? Yes No
If yes, submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.
12. Land Application Site Information.
(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)
- a. Provide a general location map for each county which clearly indicates the location of all the land application

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

sites.

- b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.
- c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U. S. Fish and Wildlife Service
Virginia Field Office
P. O. Box 480
White Marsh, VA 23183
TEL: (804)693-6694

Provide a copy of the notification letter with this application form.

- d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)
Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.
 - 1) Soil symbol
 - 2) Soil series, textural phase and slope range
 - 3) Depth to seasonal high water table
 - 4) Depth to bedrock
 - 5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

- e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:
 - 1). Soil symbol
 - 2). Soil series, textural phase and slope range
 - 3). Depth to seasonal high water table
 - 4). Depth to bedrock
 - 5). Estimated soil productivity group (for the proposed crop rotation)

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

- f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)	_____
Soil pH (std. units)	_____
Cation Exchange Capacity (meq/100g)	_____
Total Nitrogen (ppm)	_____
Organic Nitrogen (ppm)	_____
Ammonia Nitrogen (ppm)	_____
Nitrate Nitrogen (ppm)	_____
Available Phosphorus (ppm)	_____
Exchangeable Potassium (mg/100g)	_____
Exchangeable Sodium (mg/100g)	_____
Exchangeable Calcium (mg/100g)	_____
Exchangeable Magnesium (mg/100g)	_____
Arsenic (ppm)	_____
Cadmium (ppm)	_____
Copper (ppm)	_____
Lead (ppm)	_____
Mercury (ppm)	_____
Molybdenum (ppm)	_____
Nickel (ppm)	_____
Selenium (ppm)	_____
Zinc (ppm)	_____
Manganese (ppm)	_____
Particle Size Analysis or USDA Textural Estimate (%)	_____

- g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.
- h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

SEWAGE SLUDGE APPLICATION AGREEMENT

This sewage sludge application agreement is made on this date _____ between _____, referred to here as "landowner", and _____, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPDES permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge;
2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil;
3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil;
4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;
5. Animals shall not be grazed on the land for 30 days after application of sewage sludge;
6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;
7. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge;
8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.
9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sewage sludge application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner:

Signature

Permittee:

Signature

Mailing Address

Mailing Address

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SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units.

- a. Unit name or number: _____
- b. Unit location
 - i. Street or Route#: _____
County: _____
City or Town: _____ State: _____ Zip: _____
 - ii. Latitude: _____ Longitude: _____
Method of latitude/longitude determination
_____ USGS map _____ Filed survey _____ Other
- c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
- d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: _____ dry metric tons.
- e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: _____ dry metric tons.
- f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7} cm/sec? Yes No If yes, describe the liner or attach a description.

- g. Does the active sewage sludge unit have a leachate collection system? Yes No
If yes, describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:

- h. If you answered no to either f or g, answer the following:
Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? Yes No If yes, provide the actual distance in meters: _____
- i. Remaining capacity of active sewage sludge unit, in dry metric tons: _____ dry metric tons
Anticipated closure date for active sewage sludge unit, if known: _____ (MM/DD/YYYY)
Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities.

- Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? Yes No
If yes, provide the following information for each such facility, attach additional sheets as necessary.
- a. Facility name: _____
 - b. Facility contact: _____
Title: _____
Phone: () _____
 - c. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
 - d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:
Permit Number: _____ Type of Permit: _____

 - e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?
 Class A Class B Neither or unknown
 - f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge: _____

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

- g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?
- Option 1 (Minimum 38 percent reduction in volatile solids)
 - Option 2 (Anaerobic process, with bench-scale demonstration)
 - Option 3 (Aerobic process, with bench-scale demonstration)
 - Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
 - Option 5 (Aerobic processes plus raised temperature)
 - Option 6 (Raise pH to 12 and retain at 11.5)
 - Option 7 (75 percent solids with no unstabilized solids)
 - Option 8 (90 percent solids with unstabilized solids)
 - None or unknown
- h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge: _____
- _____
- _____
- i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above: _____
- _____
- _____

3. Vector Attraction Reduction.

- a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?
- Option 9 (Injection below land surface)
 - Option 10 (Incorporation into soil within 6 hours)
 - Option 11 (Covering active sewage sludge unit daily)
- b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge: _____
- _____
- _____

4. Ground Water Monitoring.

- a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? Yes No
If yes, provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.
- b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
 Yes No If yes, submit a copy of the ground water monitoring program with this application.
- c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? Yes No
If yes, submit a copy of the certification with this application.

5. Site-Specific Limits.

Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
 Yes No If yes, submit information to support the request for site-specific pollutant limits with this application.

INSTRUCTIONS**VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM****OVERVIEW**

This application form is intended to facilitate the collection of sewage sludge permit application information. This application form will constitute the applicant's Sludge Management Plan for the purposes of the VPDES permit.

STATUTORY AND REGULATORY BASIS

In May 1996, the State Water Control Board adopted the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation, 9 VAC 25-31-10 et seq. It included for the first time in state regulation Part VI - Standards for the Use or Disposal of Sewage Sludge. This section of the VPDES Permit Regulation is based on the U.S. EPA's standards for sewage sludge use or disposal promulgated in the Code of Federal Regulations at 40 CFR Part 503. These standards consist of general requirements, pollutant limits, management practices, operational standards, and requirements for frequency of monitoring, recordkeeping, and reporting for sewage sludge that is applied to the land or placed on a surface disposal site. Part VI also requires compliance with the criteria in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq. when sewage sludge is placed on a municipal solid waste landfill, but does not impose additional requirements for such sewage sludge.

At this time, Virginia is not authorized to administer the EPA Part 503 sludge program. The Department of Environmental Quality (DEQ) is conducting this program under state law and regulations separate and in addition to the federal program. Until further notice, permittees are still responsible for complying with Part 503 requirements through the EPA regional office in Philadelphia, PA.

This regulation requires all treatment works treating domestic sewage to submit information regarding their sewage sludge use and disposal practices (9 VAC 25-31-100 C 2). For most treatment works the information is required at the time the application is submitted for issuance or reissuance of the facility's VPDES discharge permit. The information requirements for sewage sludge are specified in the VPDES Permit Regulation. Under 9 VAC 25-31-100 J 4, applicants for VPDES permits which are Publicly Owned Treatment Works (POTWs) or other treatment works treating domestic sewage (TWTDS) must submit the following information:

- The activities conducted by the applicant that require it to obtain a permit;
- The applicant's name, mailing address, and location;
- The facility operator's name, address, telephone number, and status as Federal, State, private, public, or other entity;
- Whether the facility is located in Indian Country;

- A listing of all relevant environmental permits or construction approvals received or applied for;
- A topographic map showing sewage sludge management facilities, water bodies, and drinking water wells;
- Sewage sludge monitoring data and ground water monitoring data (if applicable);
- A description of the applicant's sludge sewage use or disposal practices, including the location of treatment or disposal sites and the identities of any other land applicators or distributors;
- A description of each land application site (and a Land Application Plan if all sites have not been identified);
- Annual sludge production volume;
- Information required to determine appropriate standards for permitting under Part VI of the VPDES Permit Regulation; and
- Any other information requested by the DEQ to assess sewage sludge use or disposal practices, determine whether to issue a permit, or ascertain appropriate permit requirements.

WHO MUST SUBMIT APPLICATION INFORMATION?

The following persons are "treatment works treating domestic sewage" (TWTDS) that are required to submit sewage sludge permit application information:

- Any person who generates sewage sludge that is applied to the land or placed on a surface disposal site, fired in a sewage sludge incinerator, or placed in a municipal solid waste landfill unit;
- Any person who derives material from, or otherwise changes the quality of, sewage sludge (e.g., an intermediate treatment facility such as a composting facility, or a facility that processes sewage sludge for sale or give away in a bag or other container for application to the land), if that sludge is used or disposed of in a manner subject to Part VI of the VPDES Permit Regulation;
- Any person who owns or operates a sewage sludge surface disposal site;
- Any other person required by the DEQ to submit permit application information.

For purposes of this form, you refers to the applicant. This facility and your facility refer to the facility for which application information is being submitted.

Facility should be interpreted to include activities potentially subject to regulation under the sewage sludge program - e.g., areas of sewage sludge treatment, storage, land application, or surface disposal, even if such activities do not occur at the same location.

WHICH PARTS OF THE FORM APPLY?

This application form is presented in a modular format, enabling information collection to be tailored to your facility's sewage sludge generation, treatment, use, or disposal practices. Some or all of the information must be submitted by facilities that are submitting a VPDES permit application at this time. These include the following:

- Facilities with a currently effective VPDES permit.
- Facilities that are required to have, or are requesting, site-specific pollutant limits, including "sludge-only" facilities that are applying for site-specific pollutant limits for surface disposal.
- Facilities that are required by the DEQ to apply for a permit at this time.

The form is divided into the following sections:

- Section A is general information to be provided by all applicants.
- Section B must be completed by any facility that generates sewage sludge or derives a material from sewage sludge.
- Section C must be completed by any facility that applies bulk sewage sludge to the land, or whose bulk sewage sludge is applied to the land. (Most applicants that provide this information will also submit Section B information.)
- Section D must be completed by the owner/operator of a surface disposal site.

You need only submit the Sections of the application that you actually fill out.

Complete Questions 1-6 of the Screening Information section to determine which sections of the application cover your facility's sewage sludge management activities. Table 1, below, summarizes which sections cover which activities.

**TABLE 1
GUIDELINES FOR COMPLETING SLUDGE APPLICATION FORM**

ACTIVITY(IES) PERFORMED	A	B	C	D
Generates sewage sludge or derives Material from sewage sludge	✓	✓ (B.1- B.3)		
-that meets ceiling concentrations in Table 1 and pollutant concentrations in Table 3 of 9 VAC 25-31-540, Class A pathogen requirements in 9 VAC 25-31-710, and one of the eight vector attraction reduction options in 9 VAC 25-31-720 B 1-8. (EQ sludge)	✓	✓ (B.4)		
-that is sold or given away in bag or other container for application to the land	✓	✓ (B.5)		
-that is shipped off site for treatment or blending	✓	✓ (B.6)		
-that is applied to the land in bulk form	✓	✓ (B.7)	✓	
-that is placed on a surface disposal site	✓	✓ (B.8)		
-that is fired in a sewage sludge incinerator	✓	✓ (B.9)		
-that is sent to a municipal solid waste landfill	✓	✓ (B.10)		
Applies bulk sewage sludge to land	✓		✓	
Owns or operates a surface disposal site	✓			✓

Ceiling concentration limits, pollutant concentration limits, pathogen control options and vector attraction reduction options from 9 VAC 25-31-10 et seq. are listed in Appendices I, II and III of these instructions.

Section A: General Information

All applicants must complete Section A, which requests general information about the facility.

A.1. Facility Identification.

- a. Provide the facility's official or legal name. Do not use a colloquial name.
- b. Provide the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the facility and with the facts reported in this application, and who can be contacted by the DEQ if necessary.
- c. Provide the complete mailing address of the office where correspondence should be sent. This may differ from the facility location given in Question 1.d.
- d. Provide the physical location (street address) of the facility. If the facility lacks a street address or route number, provide the most accurate alternative geographic information (e.g., township and range, section or quarter section number, nearby highway intersection).
- e. Indicate whether the facility is a Class I sludge management facility. A Class I sludge management facility is either:
 - Any POTW required to have an approved pretreatment program under Part VII of the VPDES Permit Regulation, 9 VAC 25-31-730 to 900; or
 - Any treatment works treating domestic sewage classified as a Class I sludge management facility by the EPA Regional Administrator in conjunction with the DEQ because of the potential for its sewage sludge use or disposal practices to adversely affect public health and the environment.
- f. Provide the facility's design influent flow rate. Design influent flow rate means the average flow the treatment works was designed to treat. Enter the design influent flow rate in million gallons per day (mgd) to two decimal places (e.g. 3.12 mgd translates to three million one hundred twenty thousand gallons per day).
- g. Enter the best estimate of the actual population served by the treatment facility at the time of application. Include all areas served (municipalities and unincorporated service areas).
- h. Indicate the type of facility.

"Publicly owned treatment works (POTW)" means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a state or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

"Privately owned treatment works" means any device or system which is not a POTW and which is used to treat wastes from any facility whose operator is not the operator of the treatment works.

"Federally owned treatment works" means a facility that is owned and operated by a department, agency, or instrumentality of the federal government that treats wastewater, a majority of which is domestic sewage, prior to discharge in accordance with a VPDES permit.

"Blending or treatment operation" means any sewage sludge or wastewater treatment device or system, regardless of ownership, used in the storage, treatment, recycling, and reclamation of domestic sewage, including land dedicated for the disposal of sewage sludge. For purposes of this form, such devices or systems include blending or treatment operations that derive material from sewage sludge but do not generate sewage sludge.

"Surface disposal site" means an area of land that contains one or more active sewage sludge units. An "active sewage sludge unit" is land on which only sewage sludge is placed for final disposal this does not include land on which sewage sludge is either stored or treated.

A.2. Applicant Information.

- a-b. If the applicant's name is different from the name in Question A.1., provide the applicant's name, telephone number, and mailing address.
- c. If the contact person is different from the person provided in Question A.1, provide the contact person's name, title, and telephone number.
- d. The owner of a facility is the person that owns a part of or the entire facility.
- e. The operator is the person responsible for the overall operation of the facility. In general, the operator is the person responsible for the daily functioning of the facility, including sewage sludge use or disposal.

A.3. Permit Information. Provide the facility's VPDES permit number, if any. Also provide the number and type of any relevant Federal, State, or local environmental permits or construction approvals received or applied for, including but not limited to permits issued under any of the following programs:

- Hazardous Waste Management program under RCRA;
- UIC program under SDWA;

- Prevention of Significant Deterioration (PSD) program under the Clean Air Act;
- Nonattainment program under the Clean Air Act;
- National Emission Standards for Hazardous Air Pollutants (NESHAPS) preconstruction approval under the Clean Air Act;
- Ocean dumping permits under the Marine Protection, Research, and Sanctuaries Act; or
- Dredge or fill permits under Section 404 of CWA.

A.4. Indian Country. Identify any generation, treatment, storage, application to land, or disposal of sewage sludge that occurs in Indian Country.

A.5. Topographic Map. Provide a topographic map or maps (or other appropriate map(s) if a topographic map is unavailable) that shows the items identified below, including the areas one mile beyond the property boundaries of the facility. Sewage sludge use and disposal sites located more than one mile beyond the property boundary of the facility need not be included with the topographic map except as specifically requested by the DEQ.

On each map, include the map scale, a meridian arrow showing north, and latitude and longitude at the nearest whole second. Use a 7 1/2-minute series map published by the U.S. Geological Survey (USGS), which may be obtained through the USGS Offices listed below. If a 7 1/2-minute series map has not been published for your facility site, then you may use a 15-minute series map from the U.S. Geological Survey. If neither a 7 1/2-minute nor 15-minute series map has been published for your facility site, use a plat map or other appropriate map, including all the requested information; in this case, briefly describe land uses in the map area (e.g., residential, commercial). If you have previously prepared a map that includes these three items, that map may be submitted to fulfill this requirement if it is still accurate.

Maps may be purchased at local dealers (listed in your local yellow pages) or purchased over the counter at the following USGS Earth Science Information Centers (ESIC):

Room 2650 Interior Building, 1849 C St. NW Washington, DC 20240.
(202)208-4047

507 National Center, Reston, VA 22092. (703)648-6045

All maps should be either on paper or other material appropriate for reproduction. If possible, all sheets should be approximately letter size with margins suitable for filing and binding. As few sheets as necessary should be used to clearly show what is involved. Each sheet should be labeled with your facility's name,

permit number, location (city, county, or town), date of drawing, and designation of the number of sheets of each diagram as "page ___ of ___."

- A.6. Line Drawing.** Attach to the form a line drawing, simple flow diagram or narrative description that identifies all sewage sludge processes employed during the permit term, include the information requested on the application form.
- A.7. Contractor Information.** If the use or disposal of sewage sludge from your facility is the responsibility of another person under a contract or similar binding agreement, provide the requested information for each contractor. Provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).
- A.8. Pollutant Concentrations.** Provide sewage sludge monitoring data for the pollutants which limits have been established at the time of permit application. Please note that:

- Provide all data from a minimum of three samples taken within the last four and one-half years prior to the date of application. Sample must be representative of the sewage sludge and should be taken at least one month apart.
- Express pollutant concentrations as dry weight concentrations.
- You may use a separate attachment in addition to or instead of the table provided.

Calculations on a dry weight basis are based on sewage sludge having been dried at 105 degrees Celsius until reaching a constant mass (i.e., essentially 100 percent solids content).

The sewage sludge use and disposal regulations require the use of EPA Test Method SW-846 ("Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," Second and Third Editions) to analyze samples of sewage sludge.

- A.9. Certification.** All permit applications must be signed and certified.

An application submitted by a municipality, State, Federal, or other public agency must be signed by either a principal executive officer or ranking elected official.

An application submitted by a corporation must be signed by a responsible corporate officer, which is either: (1) a president, secretary, treasurer, or vice president in charge of a principal business function, or any other person who performs similar policy- or decision-making functions, or (2) the manager of manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has

been assigned or delegated to the manager in accordance with corporate procedures.

An application submitted by a partnership or sole proprietorship must be signed by a general partner or the proprietor, respectively.

Section B: Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge

Complete this section if you are a "person who prepares sewage sludge." A person who prepares sewage sludge is a person who generates sewage sludge during the treatment of domestic sewage in a treatment works or who derives a material from sewage sludge. This section, therefore, pertains to any POTW or other treatment works that generates sewage sludge, as well as to any facility that derives a material from sewage sludge (e.g., it composts sewage sludge or blends sewage sludge with another material). Simply distributing sewage sludge or placing it in a bag or other container for sale or give-away is not considered "deriving a material" from sewage sludge (because it does not change sludge quality), and thus a facility that only distributes or bags a sewage sludge would not be automatically required to provide the information in this section.

B.1. Amount Generated On Site. Provide the total dry metric tons per 365-day period of sewage sludge that is generated at your facility. Report only the amount of sewage sludge that is generated during treatment of domestic sewage in a treatment works, not the amount of material that is derived from sewage sludge.

B.2. Amount Received from Off Site. Provide the following information if your facility receives any sewage sludge from an off-site facility for further treatment (including blending), use or disposal at your facility. If your facility receives sewage sludge from more than one off-site facility, provide this information separately for each such facility. Attach additional pages as necessary.

For purposes of this form, an off-site facility is a facility or site that is located on land physically separate from the land used in connection with your facility. "Off site" may include facilities or sites that you own if they are not located on the same property or on adjacent property.

- a. Provide the official or legal name of the off-site facility. Do not use a colloquial name.
- b. Provide the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the off-site facility and with the facts reported in this section, and who can be contacted by the DEQ if necessary.
- c. Provide the complete mailing address at the off-site facility where correspondence should be sent. This may differ from the facility location given below.

- d. Provide the physical location (street address) of the off-site facility. If the facility lacks a street address or route number, provide the most accurate alternative geographic information (e.g., township and range, section or quarter section number, nearby highway intersection).

The off-site facility providing the sewage sludge is, by definition, also a "person who prepares sewage sludge" Both you and the off-site facility are required to apply for a permit and are required to ensure that applicable Part VI requirements are met.

- e. Provide the total dry metric tons per 365-day period received from the off-site facility.
- f. Describe any treatment processes occurring at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics. "Treatment" does not include dewatering.

B.3. Treatment Provided at Your Facility. Provide the following information regarding sewage sludge treatment and handling at your facility. This question does not request information on sewage sludge treatment or handling at an off-site use or disposal facility.

- a. Indicate the class of pathogen reduction (Class A or Class B) that is achieved before sewage sludge leaves the facility. You may select "neither or unknown" only if sewage sludge is placed on an active sewage sludge unit that is covered with soil or other material at the end of each operating day, sent to another facility for additional treatment, or fired in a sewage sludge incinerator.

Options for meeting Class A or Class B pathogen reduction are listed in Appendix II.

- b. Provide a written description of any treatment processes used to reduce pathogens in sewage sludge, including an indication of how the treatment fulfills one of the options for meeting Class A or Class B pathogen reduction. You may attach existing documentation (e.g., technical or process specifications) to meet this requirement.
- c. Indicate whether any of vector attraction reduction options 1-8 are met before sewage sludge leaves the facility. Options 1-8 are in Appendix III of these instructions, and typically are met at the point of sewage sludge generation.

Options 9, 10, and 11 (Appendix III) are also available, but are typically met at the point of use or disposal and are covered elsewhere in this form.

You may select "none or unknown" only in the following cases:

- If sewage sludge is sent to another facility for

additional treatment;

- If option 9 (injection below land surface) or option 10 (incorporation into soil within six hours) is met at a land application site;
- If option 9 (injection below land surface), option 10 (incorporation into soil within six hours), or option 11 (daily cover) is met at an active sewage sludge unit at a surface disposal site;
- If sewage sludge is fired in a sewage sludge incinerator;
or
- If sewage sludge is placed on a municipal solid waste landfill unit.

Land application: Sewage sludge applied to agricultural land, a forest, a public contact site, or a reclamation site must meet one of the vector attraction reduction options 1-10. Sewage sludge applied to a lawn or home garden, or placed in a bag or other container for sale or give-away, must meet any of options 1-8.

Surface disposal: Sewage sludge placed on an active sewage sludge unit must meet one of vector attraction reduction options 1-11.

- d. Provide a written description of any treatment processes used to reduce vector attraction characteristics of sewage sludge, including an indication of how the treatment fulfills one of options 1-8 for vector attraction reduction. You may attach existing documentation (e.g., technical or process specifications) to meet this requirement.
- e. Provide a written description of any other treatment activities (including blending with other sewage sludge or another material) not described in B.3.b or B.3.d above. "Other treatment" does not include dewatering or placement of sewage sludge in a bag or other container for sale or give-away. You may attach existing documentation (e.g., technical or process specifications) to meet this requirement.

B.4. Preparation of Sewage Sludge Meeting Pollutant Concentrations, Class A Pathogen Requirements, and One of Vector Attraction Reduction Options 1-8.

Complete this section if sewage sludge from this facility meets all of the following criteria, which is often referred to as exceptional quality (EQ):

- The ceiling concentrations in Table 1 and the pollutant concentrations in Table 3 of 9 VAC 25-31-540 (See Appendix I);
- The Class A pathogen reduction requirements in 9 VAC 25-31-710

A (See Appendix II); and

- One of the vector attraction reduction options in 9 VAC 25-31-720 B 1-8 (See Appendix III).

Sewage sludge meeting all of these criteria is exempt from the general requirements of 9 VAC 25-31-530 and the management practices of 9 VAC 25-31-550, and thus fewer permitting and permit application requirements typically pertain to facilities generating such sludge. For this reason, if you are eligible to complete Section B.4, you may skip Sections B.5 - B.7 unless specifically required to complete any of them by the DEQ.

- a. Provide the total dry metric tons per 365-day period of sewage sludge that is applied to the land and that meets the Table 1 ceiling concentrations, Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8.
- b. Indicate whether sewage sludge that meets the Table 1 ceiling concentrations, Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8 is placed in bags or other containers at your facility.

Sewage sludge placed in a bag or other container must meet Class A pathogen requirements, one of vector attraction reduction options 1-8, Table 1 ceiling concentrations, and either it must meet Table 3 pollutant concentrations, or the annual pollutant loading rates (APLRs) in Table 4 of Appendix I must not be exceeded. This question does not pertain to sewage sludge meeting APLRs.

An other container is either an open or closed receptacle, including but not limited to a bucket, a box, a carton, and a vehicle or trailer with a load capacity of one metric ton or less.

B.5. Sale or Give-Away in a Bag or Other Container for Application to the Land. Complete this section if sewage sludge from this facility is sold or given away in a bag or other container for application to the land. Skip this section, however, for any sewage sludge you reported in Section B.4 (i.e., EQ sludge).

A bag or other container includes an open or closed receptacle such as a bucket, box, carton, or vehicle or trailer with a load capacity of one metric ton or less.

- a. Provide the total dry metric tons per 365-day period placed in bags or other containers for sale or give-away for application to the land.
- b. Attach with this application a copy of any label or information sheet that accompanies the product being sold or given away. When sewage sludge is placed in a bag or other container for sale or give-away for application to the land,

either a label must be affixed to the bag or other container, or an information sheet must be provided to the person receiving the sewage sludge. The label or information sheet must contain the following information:

- The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land;
- A statement that application of the sewage sludge to the land is prohibited except in accordance with the instructions on the label or information sheet; and
- The annual whole sludge application rate for the sewage sludge that does not cause any of the annual pollutant loading rates in Table 4 of Appendix I to be exceeded.

B.6. Shipment Off Site for Treatment or Blending. Complete this section if you provide sewage sludge to another facility, and that facility:

- Provides treatment (i.e., it derives a material from sewage sludge); or blending.

Skip this section, however, for any sewage sludge that is:

- Covered in Section B.4 (i.e., it meets the Table 1 ceiling concentrations, Table 3 pollutant concentrations, Class A pathogen reduction requirements, and one of vector attraction reduction options 1-8);
- Covered in Section B.5 (i.e., it is placed in a bag or other container at your facility for application to the land); or
- Sent directly from your facility to a land application site or surface disposal site.

If you provide sewage sludge to more than one facility that provides treatment or blending, complete Section B.6 for each such facility. Attach additional pages as necessary.

- a. Provide the official or legal name of the facility receiving the sewage sludge. Do not use a colloquial name.
- b. Provide the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the facility receiving the sewage sludge, and who can be contacted by the DEQ, if necessary.
- c. Provide the complete mailing address of the receiving facility where correspondence should be sent. This may differ from the facility location given below.
- d. Provide the total dry metric tons per 365-day period your

facility sends to the receiving facility. Do not include sewage sludge that other facilities send to the receiving facility.

- e. Provide the VPDES permit number, as well as the number and type of any relevant Federal, State, or local environmental permits issued to the facility receiving the sewage sludge.
- f. Indicate whether the facility receiving the sewage sludge provides additional treatment to reduce pathogens in sewage sludge from your facility. Also indicate whether Class A or Class B pathogen reduction is achieved before the sewage sludge leaves the receiving facility, regardless of whether that level of pathogen reduction was achieved at your facility, the receiving facility, or both.

Options for meeting Class A or Class B pathogen reduction are listed in Appendix II.

Provide a written description of any treatment processes used at the receiving facility to reduce pathogens in sewage sludge, including an indication of how the treatment fulfills one of the options for meeting Class A or Class B pathogen reduction. You may attach existing documentation (e.g., technical or process specifications) to meet this requirement.

- g. Indicate whether the facility receiving the sewage sludge provides additional treatment to reduce vector attraction characteristics of the sewage sludge from your facility. Also indicate whether any of vector attraction reduction options 1-8, Appendix III, are met before the sewage sludge leaves the receiving facility, regardless of whether the vector attraction reduction option is met at your facility, the receiving facility, or both. Options 1-8 are typically met at the point of sewage sludge generation or treatment; additional options are available, but these are typically met at the point of use or disposal.

Land application: Sewage sludge applied to agricultural land, forest, a public contact site, or a reclamation site must meet one of vector attraction reduction options 1-10. Sewage sludge applied to a lawn or home garden, or placed in a bag or other container for sale or give-away, must meet one of vector attraction reduction options 1-8.

Surface disposal: Sewage sludge placed on an active sewage sludge unit must meet one of vector attraction reduction options 1-11.

Provide a written description of any treatment processes used at the receiving facility to reduce vector attraction reduction characteristics of sewage sludge, including an indication of how the treatment fulfills one of options 1-8 for vector attraction reduction. You may attach existing documentation (e.g., technical or process specifications) to meet this requirement.

- h. Provide a written description of any other treatment or processing activities (including blending with other sewage sludge or another material) not described in B.6.f or B.6.g above. This does not include dewatering of sewage sludge. You may attach existing documentation (e.g., technical or process specifications) to meet this requirement.
- i. If you generate sewage sludge or derive a material from sewage sludge, and you provide that sewage sludge to another person who derives a material from the sewage sludge, 9 VAC 25-31-530 G requires you to provide that person with notice and necessary information to comply with land application requirements of Part VI. If you answered "yes" to B.6.f, B.6.g, or B.6.h, the receiving facility is a "person who prepares sewage sludge" and you must provide, with this application, a copy of any notice and other information you provide to the receiving facility.
- j. If the receiving facility places sewage sludge from your facility in a bag or other container for sale or give-away for application to the land, provide a copy of all labels or notices that accompany the product being sold or given away.

A bag or other container includes an open or closed receptacle such as a bucket, box, carton, or vehicle or trailer with a load capacity of one metric ton or less.

When sewage sludge is placed in a bag or other container for sale or give-away for application to the land, either a label must be affixed to the bag or other container, or an information sheet must be provided to the person receiving the sewage sludge. The label or information sheet must contain the following information:

- The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land;
 - A statement that application of the sewage sludge to the land is prohibited except in accordance with the instructions on the label or information sheet; and
 - The annual whole sludge application rate for the sewage sludge that does not cause any of the annual pollutant loading rates in Table 4 of Appendix I to be exceeded.
- k. Provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility if a truck-mounted tank is not used. Also provide haul route(s) on a location map or briefly describe the haul route and indicate the operation days and time.

B.7. Land Application of Bulk Sewage Sludge. Complete this section if bulk sewage sludge from your facility is sprayed or spread onto

the land surface, injected below the land surface, or incorporated into the soil in order to condition the soil or fertilize crops or vegetation grown in the soil.

Skip this section, however, for sewage sludge that is:

- Covered in Section B.4 (i.e., it meets the ceiling concentrations in Table 1 and the pollutant concentrations in Table 3 of Appendix I, the Class A pathogen reduction requirements in Appendix II, and one of the vector attraction reduction options in Appendix III B 1-8);
- Covered in Section B.5 (i.e., it is placed in a bag or other container for sale or give-away for application to the land); or
- Covered in Section B.6 (i.e., it is sent to another facility for treatment or blending).

Bulk sewage sludge is defined as sewage sludge that is not sold or given away in a bag or other container for application to the land. (A bag or other container includes an open or closed receptacle such as a bucket, box, carton, or vehicle or trailer with a load capacity of one metric ton or less.)

If you complete this section (which requests summary information for all bulk sewage sludge that is applied to the land), also complete Section C for each land application site.

- a. Provide the total dry metric tons per 365-day period your facility sends to all land application sites. Do not include sewage sludge sent to land application sites by other facilities.

Skip items b. c and d. below if you contract land application to someone else who is responsible for the operation (as indicated under A.7)

- b. Indicate whether all land application sites are identified in Section C of this application. If you are not identifying all sites in Section C, provide a copy of the Land Application Plan with this permit application. (Information is collected in Section C for each land application site that has been identified at the time of permit application.)

Current regulations require you to submit a Land Application Plan at the time of permit application if you intend to apply sewage sludge to land application sites that have not been identified at the time of permit application. (This requirement does not apply if your sewage sludge meets the ceiling concentrations in Table 1 and the pollutant concentrations in Table 3 of Appendix I, the Class A pathogen reduction requirements in Appendix II, and one of the vector attraction reduction options in Appendix III B 1-8.)

At a minimum, the Land Application Plan must:

- describe the geographical area covered by the plan;
- identify site selection criteria;
- describe how sites will be managed;
- provide for advance notice to the DEQ of specific land application sites and a reasonable time, for the DEQ to object prior to the sewage sludge application; and
- provide for public notice in a newspaper of general circulation in the area of the land application site and notice to land owners and occupants adjoining the proposed land application sites.

The permit writer will work with you to develop additional details of the Land Application Plan on a case-by-case basis.

Such details include site selection criteria (site slope, run-on and run-off control, etc.) and site management guidelines (sludge application rates, access controls, etc.).

The Land Application Plan is an alternative to either (1) requiring identification of, and permit conditions for, all potential land application sites at the time of permit issuance, or (2) requiring an individual permit action (i.e. permit modification) for each approval of a land application site. A Land application Plan provides for public notice when the Land Application Plan is developed as part of the permit, and it discusses how the public will be notified on a case-by-case basis. The public notice must indicate that the permit includes a Land Application Plan, and the fact sheet must briefly describe the contents of the Land Application Plan.

- c. If any land application sites are located in States other than Virginia, describe how the permitting authority will be notified in the States where the land application sites are located and provide a copy of the notice.

The permitting authority is either:

- The State, in cases where the State has an EPA-approved sewage sludge management program; or
- The EPA Region, in cases where a State sewage sludge management program has not yet been approved.

The notice must include the following:

- The physical location, by either street address or latitude and longitude, of each land application site;
- The approximate time period bulk sewage sludge will be

applied to the site;

- The name, address, and telephone number of the person who prepares the bulk sewage sludge and the NPDES permit number (if applicable) of their facility; and
 - The name, address, and telephone number of the person who will apply the bulk sewage sludge and the NPDES permit number (if applicable) for their facility.
- d. As a preparer and/or land applier of the bulk sewage sludge to the land, you are required to provide notice and necessary information to land applier and/or the owner or lease holder of the land on which the bulk sewage sludge is applied in order to comply with 9 VAC 25-31-510 through 9 VAC 25-31-590. A sample format of the notice and necessary information may be obtained in Appendix IV.

B.8. Surface Disposal. Complete this section if sewage sludge from your facility is placed on a surface disposal site. If you own or operate a surface disposal site, also complete Section D.

- a. Provide the total dry metric tons per 365-day period that is sent from your facility to all surface disposal sites. Do not include sewage sludge sent to surface disposal sites by other facilities.

A surface disposal site is an area of land that contains one or more active sewage sludge units. An active sewage sludge unit is a sewage sludge unit that has not closed. A sewage sludge unit is land on which only sewage sludge is placed for final disposal, excluding land on which sewage sludge is either stored or treated.

- b. If sewage sludge from your facility is placed on any surface disposal sites that you do not own or operate, complete B.8.c - B.8.g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site that you do not own or operate, attach additional pages as necessary.
- c. Provide the official or legal name (or number) of the site receiving the sewage sludge. Do not use a colloquial name.
- d. Provide the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the surface disposal site, and who can be contacted by the DEQ if necessary.

Indicate whether the facility contact is the site owner, the site operator, or both. For purposes of this form, the owner is the person that owns a part of or the entire facility. The operator is the person responsible for the overall operation of the facility, and may be different from the owner. In general, the operator is the person responsible for the daily functioning of the facility, including sewage sludge use or

disposal.

- e. Provide the complete mailing address at the surface disposal site where correspondence should be sent. This may differ from the facility location given below.
- f. Provide the total dry metric tons of sewage sludge per 365-day period from your facility placed on this surface disposal site. Do not include sewage sludge sent to this surface disposal site by other facilities.
- g. Provide the VPDES permit number, as well as the number and type of any relevant Federal, State, or local environmental permits issued to the surface disposal site.

B.9. Incineration. Complete this section if sewage sludge from your facility is fired in a sewage sludge incinerator.

- a. Provide the total dry metric tons of sewage sludge per 365-day period that is sent from your facility to all sewage sludge incinerators. Do not include sewage sludge sent to sewage sludge incinerators by other facilities.

A sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired. Auxiliary fuel is fuel used to augment the fuel value of sewage sludge, including natural gas, fuel oil, coal, gas generated during anaerobic digestion of sewage sludge, and municipal solid waste (not to exceed 30 percent of the dry weight of sewage sludge and auxiliary fuel together).

- b. If you do not own or operate a sewage sludge incinerator in which sewage sludge from your facility is fired, complete B.9.c - B.9.g each sewage sludge that you do not own or operate.
- c. Provide the official or legal name or number of the sewage sludge incinerator. Do not use a colloquial name.
- d. Provide the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the sewage sludge incinerator, and who can be contacted by the DEQ if necessary.

Indicate whether the facility contact is the site owner, the site operator, or both. For purposes of this form, the owner is the person that owns a part of or the entire facility. The operator is the person responsible for the overall operation of the facility, and may be different from the owner. In general, the operator is the person responsible for the daily functioning of the facility, including sewage sludge use or disposal.

- e. Provide the complete mailing address at the sewage sludge incinerator where correspondence should be sent. This may differ from the incinerator location given below.

- f. Provide the total dry metric tons of sewage sludge per 365-day period from your facility fired in this sewage sludge incinerator. Do not include sewage sludge sent to this incinerator by other facilities.
- g. Provide the VPDES permit number, as well as the number and type of any relevant Federal, State, or local environmental permits issued to the sewage sludge incinerator.

B.10. Disposal on a Municipal Solid Waste Landfill. Complete this section if sewage sludge from your facility is placed on a municipal solid waste landfill (MSWLF) unit.

Provide the information in this section once for each MSWLF on which sewage sludge from your facility is placed. If sewage sludge from your facility is placed on more than one MSWLF, attach additional pages as necessary.

The sewage sludge use and disposal regulations do not impose additional requirements on sewage sludge that is sent to a MSWLF, but they cross-reference existing criteria for MSWLFs in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq. Therefore, if sewage sludge from your facility is placed on a MSWLF unit, your permit must contain conditions regulating such disposal.

A MSWLF unit is a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile. A MSWLF unit also may receive other types of RCRA subtitle D wastes, such as commercial solid waste, nonhazardous sludge, small quantity generator waste and industrial solid waste. Such a landfill may be publicly or privately owned.

- a. Provide the official or legal name of the MSWLF. Do not use a colloquial name.
- b. Provide the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the MSWLF, and who can be contacted by the permitting authority if necessary.
- c. Provide the complete mailing address at the MSWLF where correspondence should be sent. This may differ from the MSWLF location given below.
- d. Provide the physical location (street address) of the MSWLF. If the MSWLF lacks a street address or route number, provide the most accurate alternative geographic information (e.g., township and range, section or quarter section number, nearby highway intersection).
- e. Provide the total dry metric tons per 365-day period that is sent from your facility to this MSWLF. Do not include sewage sludge sent to the MSWLF by other facilities.

- f. Provide the number and type of any relevant Federal, State, or local environmental permits issued to the MSWLF.
- g. Indicate whether sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a MSWLF.

Sewage sludge placed on a MSWLF must meet the following requirements listed in 9 VAC 20-80-10 et seq.:

- Placement on a MSWLF of bulk or noncontainerized liquid waste, as determined using the Paint Filter Liquids Test (Method 9095 in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods - EPA Pub. No. SW-846."), is prohibited.
 - Placement on a MSWLF of a regulated hazardous waste, as defined in the Virginia Hazardous Waste Regulation, 9 VAC 20-60-10, is prohibited.
 - If sewage sludge is used as a cover at a MSWLF, the MSWLF owner/operator must demonstrate that the sewage sludge is suitable for use as a cover, and that it provides sufficient control of disease vectors, fires, odors, blowing litter, and scavenging and does not present a threat to human health and the environment.
- h. Indicate whether the MSWLF complies with criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.

The Solid Waste Management Regulation specifies minimum criteria for MSWLFs, including landfills that accept sewage sludge along with municipal solid waste. Among these requirements are location restrictions, facility design and operating criteria, ground-water monitoring, and corrective action, closure and post-closure care, along with financial assurance requirements. DEQ concluded that if sewage sludge is disposed of in a MSWLF complying with 9 VAC 20-80-10 criteria, public health and the environment are protected.

- i. The vehicle that transports the sewage sludge to the MSWLF should be watertight and covered. Also provide the haul route(s) on a location map or describe the route and indicate the operation days and time.

Section C: Land Application of Bulk Sewage Sludge.

Complete this section if you completed Section B.7 (Land Application in Bulk Form). Unless the DEQ specifically requires you to complete this section, you may skip this section for sewage sludge that is covered in any of the following sections of this application:

- Section B.4 (the sewage sludge meets the ceiling concentrations in Table 1 and the pollutant concentrations in Table 3 of Appendix I, the Class A pathogen reduction requirements in Appendix II, and one of the vector attraction reduction options in Appendix III B 1-8). Such sewage sludges are exempt from the general requirements and management practices of Part VI (unless the DEQ requires otherwise), and thus the site information in Section C is not required for permitting.
- Section B.5 (the sewage sludge is placed in a bag or other container for sale or give-away for application to the land). Section C does not cover the sale or give-away of sewage sludge in a bag or other container.
- Section B.6 (the sewage sludge is sent to another facility for treatment or blending). Section C does not apply to a generator that sends sewage sludge to another facility for treatment or blending, because the Part VI requirements addressed by Section C will largely be the responsibility of the receiving facility.

Bulk sewage sludge is defined as sewage sludge that is not sold or given away in a bag or other container for application to the land. (A bag or other container includes an open or closed receptacle such as a bucket, box, carton, or vehicle or trailer with a load capacity of one metric ton or less.)

Provide the information in this section for each land application site that has been identified at the time of permit application. Attach additional pages as necessary. In cases where the sewage sludge is applied to numerous sites with similar characteristics, you may combine the information for several sites under a single response (the name and address of each site must still be provided, however).

C.1. Identification of Land Application Site.

- a. Provide the site name and/or number. The name and/or number is any designation commonly used to refer to the site. If the site has been previously designated in another permit, use that designation.
- b. Provide the physical location (street address) of the land application site. If the site lacks a street address or route number, provide the most accurate alternative geographic information (e.g., county, nearby highway intersection). Also provide the latitude and longitude of the land application site and the method of latitude/longitude determination.
- c. Provide a topographic map or other appropriate map if a topographic map is unavailable) that shows the site location. See additional instructions in A.5.

2. Owner Information.

- a. Indicate whether you are the owner of this land application

site.

- b. If you are not the owner of this land application site, provide the complete mailing address for the site owner.

C.3. Applier Information.

- a. Indicate whether you are the person who applies sewage sludge to this land application site.
- b. If you are not the person who applies sewage sludge to this land application site, provide the name and mailing address of the person who applies sewage sludge to this land application site.
- c. If you are not the person who applies sewage sludge to this land application site, provide the numbers of all federal, state and local permits that regulate the person who applies sewage sludge to this land application site.

C.4. Site Type. The "type of land application site" is the intended end use of the land. Part VI regulates bulk sewage sludge applied to agricultural land, forest, public contact sites, reclamation sites, and lawns and home gardens. Proper identification of the type of land application site is important because the applicable Part VI requirements - and thus permit conditions - differ according to the type of site.

Agricultural land is land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land, which is open land with indigenous vegetation, and pasture, which is land on which animals feed directly on crops such as grasses, grain stubble, or stover.

Forest is a tract of land thick with trees and underbrush.

A public contact site is land with a high potential for contact by the public. Public contact sites include public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

A reclamation site is land that has been drastically disturbed by strip mining, fires, construction, etc. As part of the reclamation process, sewage sludge is applied for its nutrient and soil conditioning properties to help stabilize and revegetate the land.

For purposes of this form, a lawn or home garden is privately-owned land on which crops or other vegetation are grown for private, non-commercial use and on which use by the general public does not occur.

C.5. Vector Attraction Reduction. Identify any vector attraction reduction requirements that are met at the land application site. Specifically, indicate whether vector attraction reduction option 9 (injection below soil surface) or option 10

(incorporation into soil within 6 hours) is met. Provide a written description of how the vector attraction reduction is met.

Bulk sewage sludge that is applied to the land may meet any of vector attraction reduction options 1-10, as identified in 9 VAC 25-31-720 B. Options 1-8 were covered in Section B.3, which requests information on sewage sludge treatment at the facility generating the sewage sludge. If you met any of options 1-8 (e.g., processes to reduce volatile solids, reduce specific oxygen uptake rate, raise pH, raise percent solids), you should have identified that option in Question B.3.c and described how the option is met in Question B.3.d.

By contrast, vector attraction reduction options 9 and 10 are typically met at the land application site. Options 9 and 10 are not available for sewage sludge applied to a lawn or home garden.

C.6. Cumulative Pollutant Loadings and Remaining Allotments.

Complete Section C.6. only for sewage sludge that is applied to the site subject to cumulative pollutant loading rates (CPLRs). Sewage sludge applied to the site on or before July 20, 1993, is not subject to this section. This section collects the additional tracking information that is necessary for sewage sludge subject to CPLRs, as identified in 9 VAC 25-31-530.

- a. Indicate whether you have contacted the DEQ or the permitting authority in another state if the sludge is to be applied outside Virginia to ascertain whether bulk sewage sludge subject to CPLRs has been applied to the site since July 20, 1993.

You may not apply bulk sewage sludge subject to CPLRs to the site until you have contacted the DEQ or the permitting authority in another state for sludge being applied outside Virginia.

The permitting authority is either:

- The State, in cases where the State has an EPA-approved sewage sludge management program; or
- The EPA Region, in cases where a State sewage sludge management program has not yet been approved.

If you answered **yes** to C.6.a, continue on to the next question.
If you answered **no**, skip the rest of Section C.6.

- b. Indicate whether, based on your investigation in Section C.8.a or other information, sewage sludge subject to CPLRs has been applied to the site since July 20, 1993.

If you answered **yes** to C.6.b, continue on to the next question.
If you answered **no**, skip the rest of Section C.6.

- c. Provide the size of the site in hectares. To convert acres to hectares, multiply acres by 0.4047. To convert square feet to hectares, divide square feet by 1.076×10^5 .
- d. Provide the following information for every other facility that sends (or has sent since July 20, 1993) bulk sewage sludge subject to CPLRs to this site:
- The official or legal name of the facility. Do not use a colloquial name.
 - If available, the name, title, and work telephone number of a person who is thoroughly familiar with the facility, and who can be contacted by the DEQ if necessary.
 - The complete mailing address at the facility where correspondence should be sent.
- e. List the cumulative loading and remaining allotment for each of the pollutants listed below.

In the first column, provide the cumulative loading, in kilograms per hectare (kg/ha), of each listed pollutant in sewage sludge that has been applied to this site since July 20, 1993. The cumulative loading does not include loadings of pollutants from non-CPLR sewage sludges (e.g., sludges meeting the Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8). To convert lb/ac to kg/ha, multiply lb/ac by 1.121.

In the second column, provide the allotment remaining for each listed pollutant. To determine the remaining allotment of each pollutant that may be applied to the site, subtract the cumulative loading (amount of pollutant applied since July 20, 1993, in kilograms per hectare) from the CPLR listed in Table 2 of Appendix I of these instructions.

If any of the calculated remaining allotments are equal to or less than 0, no additional pollutants in bulk sewage sludge subject to CPLRs may be applied to the site. Additionally, if the cumulative amount of each pollutant applied to the site cannot be determined, no additional bulk sewage sludge subject to CPLRs may be applied to the site.

Complete Section C.7-C.12, which are more site-specific information, only if you apply sewage sludge yourself, or if you are responsible for the land application activities. If instructions beyond those provided below are needed, contact the DEQ regional offices for assistance. A preliminary meeting with the local DEQ regional office is recommended prior to completing the following questions.

- C.7 Sludge Characterization.** At least one analysis for each parameter listed shall be conducted on sewage sludge to be land

applied. For proposed operations, estimates may be used based on the characteristics of similar facilities. Provide the reference to identify the similar facility.

- C.8 Storage Requirements.** Facilities must be designed and operated to prevent point source discharge of pollutants to State waters except in the case of a storm event greater than the 25 year-24 hour storm. DEQ requires storage capacity be sufficient to ensure that sewage sludge does not have to be applied in inclement weather or during periods when fields are unavailable for waste utilization because of the cropping plan. A minimum 60-day storage capacity for sludge is recommended. DEQ suggests that the storage facilities have a 2 ft freeboard at all times.

Detailed plans and specifications are required for all proposed facilities. DEQ requires lagoon liners to have a maximum coefficient of permeability of 1×10^{-6} cm/sec. It is recommended that soils used as liners be capable of achieving a maximum coefficient of permeability of 1×10^{-7} cm/sec or less. Total soil liner thickness should be one foot after compaction of two separate lifts of equal thickness. Synthetic liners should be a minimum of 20 mil. thickness and be appropriately protected from puncture both below and above the liner. A 2-foot separation distance between the facility bottom and the seasonal high water table is recommended.

- C.9 Land Area Requirements.** Land area calculation is an essential part of land application design. Regarding plant available nitrogen (PAN) loading, DEQ recommends sewage sludge application rates be calculated based on the Virginia Agronomic Land Use Evaluation System (VALUES) which has been incorporated into the Virginia Nutrient Management Standards and Criteria, 1995, published by the Department of Conservation And Recreation. Site specific loading rates may be justified by documenting historic crop yield records (average of three highest yields in five years of record), or by written verification from the Virginia Polytechnic Institute and State University, the cooperative Extension Service or Department of Conservation and Recreation Nutrient Management Specialist.

Application rates for sewage sludge-borne calcium carbonate equivalence (CCE) may be restricted in accordance with the soil pH. Unless properly controlled, lime treated sewage sludges which exhibit high CCE may have an adverse effect on soil pH and ultimately on crop productivity. Therefore, land application of sewage sludge with high CCE content should be controlled to correspond with current agriculture liming practices.

For CPLR sewage sludge, land area calculation should be based on the cumulative pollutant loading and remaining allotments as provided under Section C.7 above. Relate PAN, CCE and metal loadings to demonstrate the most limiting factor for land application.

- C.10 Landowner Agreement Forms.** If sewage sludge is to be land applied onto land not owned by the applicant, the Sludge

Application Agreement Form shall be completed by each landowner.

C.11. Ground Water Monitoring. If any ground water monitoring data are available for this land application site, submit the following with the application:

- Available ground water monitoring data; and
- A written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

For purposes of this form, ground water monitoring means the installation and periodic sampling and analysis of small diameter wells screened in the aquifer below the base of the deepest active sewage sludge unit.

C.12 Land Application Site Information. Complete items a-d for sites receiving infrequent applications and items a-h for sites receiving frequent applications. Infrequent application is defined as land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period. Frequent application is defined as land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period.

The location of land application of sewage sludge should not occur within the following minimum buffer zone requirements:

Adjacent Features	Minimum Distance (feet) to Land Application Area		
	Surface Application ⁽¹⁾	Incorporation	Winter ⁽²⁾
Occupied dwellings	200	200	200
Water supply wells and springs	100	100	100
Property lines	100	50	100
Perennial streams and other surface waters except intermittent streams	50	35	100
Intermittent streams/drainage ditches	25	25	50
All improved roadways	10	5	10
Rock outcrops and sinkholes	25	25	25
Agricultural drainage ditches with slopes equal to or less than 2.0%	10	5	10

(1) Not plowed or disced to incorporate within 48 hours.

(2) Application occurs on average site slope greater than 7.0% during the time between November 16 of one year and March 15 of the following year.

Calculation of the net acreage for each field should take into account the proposed buffer zones. The site plan and the net acreage may be finalized after inspection has been conducted by the DEQ staff.

Regarding endangered species or critical habitat protection, the applicant is required to notify, by a letter, the field office of the U. S. Fish and Wildlife Service (FWS) the proposed land

application activities with the identification of the land application sites. A copy of the notification letter must accompany the application.

If it is determined that the proposed action may impact federally listed threatened or endangered species or federally designated critical habitat, the applicant should consult with the FWS to determine and develop necessary modifications to the application to ensure that the proposed activities will not adversely impact federally listed threatened or endangered species or federally designated critical habitat.

Section D: Surface Disposal

Complete this section if you own or operate a surface disposal site.

A sewage sludge surface disposal site is, by definition, a treatment works treating domestic sewage, and the owner/operator of the site is required to apply for a permit. You are required to submit Section D of this form if:

- The surface disposal site is already covered by an VPDES permit (e.g., a POTW's VPDES permit);
- You are requesting site-specific pollutant limits for an active sewage sludge unit at the surface disposal site; or
- You have been required by the DEQ to submit a full permit application at this time.

If none of these criteria apply, you may skip Section D.

D.1. Information on Active Sewage Sludge Units. Complete Section D for each active sewage sludge unit at the surface disposal site. If the site has more than one unit, attach additional pages as necessary.

An active sewage sludge unit is an area of land on which only sewage sludge is placed for final disposal. Sewage sludge units include, but are not limited to, natural topographical depressions, man-made excavations, or diked areas designed to dispose of (not treat) sewage sludge. Sewage sludge units do not include areas where sewage sludge is generated as a result of ongoing treatment (e.g., polishing ponds) or land on which sewage sludge is placed for either treatment or storage. Sewage sludge may be stored on an area of land for a period equal to or less than two years. If sewage sludge remains on an area of land for greater than two years, the person who prepares the sewage sludge must develop a rationale for why the land should not be considered an active sewage sludge unit.

Most requirements for surface disposal of sewage sludge under Part VI pertain to individual active sewage sludge units at a surface disposal site. Permit conditions for your facility may

be developed on a unit-by-unit basis, or may be developed for the entire surface disposal site if all units are sufficiently similar.

- a. Provide the name or number of the active sewage sludge unit. The name or number is any designation commonly used to refer to the unit. If the active sewage sludge unit has been previously designated in another permit, use that designation.
- b. Provide the physical location (street address) of the active sewage sludge unit. If the unit lacks a street address or route number, provide the most accurate alternative geographic information (e.g., county, nearby highway intersection). Also, provide the latitude and longitude of the site location and the method of latitude/longitude determination.
- c. Provide a topographic map or other appropriate map (if a topographic map is unavailable) that shows the site location. See additional instructions in A.5.
- d. Provide the total dry metric tons per 365-day period placed on the active sewage sludge unit.
- e. Provide the cumulative total dry metric tons placed on the active sewage sludge unit since it began operation.

The amount of sewage sludge placed on an active sewage sludge unit determines the frequency of monitoring for sewage sludge placed on the active sewage sludge unit.

- f. Indicate whether the active sewage sludge unit has a liner. A liner is defined as soil or synthetic material with a hydraulic conductivity (permeability) of 1×10^{-7} cm/sec.

If the active sewage sludge unit has a liner, describe the material from which the liner is constructed and specify the design hydraulic conductivity of that material. Also describe any known factors that may indicate the liner is not performing to its design specifications.

- g. Indicate whether the active sewage sludge unit has a leachate collection system. A leachate collection system is a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a sewage sludge unit.

If the active sewage sludge unit has a leachate collection system, describe how the system is designed and operated. Also describe the method used for leachate disposal, such as discharge to surface water (provide all applicable permit numbers) or disposal at a hazardous waste treatment, storage, or disposal facility (provide Federal, State, and local permit numbers for this facility).

- h. If you answered yes to both D.2.f and D.2.g, pollutant limits do not apply to the active sewage sludge unit. Additional management practices do apply, however, and will be developed on a case-by-case basis and specified in the permit.

If the boundary of the active sewage sludge unit is less than 150 meters from the property line of the surface disposal site, provide the actual distance in meters.

When the boundary of an active sewage sludge unit without a liner and leachate collection system is less than 150 meters from the property line of the surface disposal site, the pollutant limits for the unit are determined according to the actual distance as indicated in Table 2 of 9 VAC 25-31-630.

- i. Provide the remaining capacity of the active sewage sludge unit, in dry metric tons, and the anticipated closure date, if known. Attach to the application a copy of any closure plan that has been developed for the active sewage sludge unit.

D.2. Sewage Sludge from Other Facilities. If sewage sludge is sent to this active sewage sludge unit by any facilities other than your facility, complete this section for each such facility. If sewage sludge from more than one facility other than your facility is placed on this active sewage sludge unit, attach additional pages as necessary.

- a. Provide the official or legal name of the facility providing the sewage sludge. Do not use a colloquial name.
- b. Provide the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the facility that is providing the sewage sludge, and who can be contacted by the DEQ if necessary.
- c. Provide the complete mailing address of the facility providing the sewage sludge.
- d. Provide the VPDES permit number, as well as the number and type of any relevant Federal, State, or local environmental permits issued to the facility providing the sewage sludge.
- e. Indicate the class of pathogen reduction that is achieved before sewage sludge leaves the facility providing the sewage sludge.

Options for meeting Class A or Class B pathogen reduction are listed in Appendix II.

- f. Provide a written description of any treatment processes used at the facility providing the sewage sludge to reduce pathogens in the sewage sludge, including, where applicable, how the treatment fulfills one of the options for meeting Class A or Class B pathogen reduction. You may attach existing documentation (e.g., technical or process

specifications) to meet this requirement.

- g. Indicate whether any of the vector attraction reduction options 1-8, (See Appendix III B) are met at the facility providing the sewage sludge. Options 1-8 are typically met at the point of sewage sludge generation. Additional options are available, but these are typically met at the point of disposal.

You may select "none or unknown" only if option 9 (injection below land surface), option 10 (incorporation into soil within six hours), or option 11 (daily cover) is met at the point of disposal at this active sewage sludge unit (see Section D.4.a).

- h. Provide a written description of any treatment processes used at the facility providing the sewage sludge to reduce vector attraction reduction characteristics of sewage sludge, including an indication of how the treatment fulfills one of options 1-8 for vector attraction reduction. You may attach existing documentation (e.g., technical or process specifications) to meet this requirement.
- i. Provide a written description of any other treatment processes (excluding dewatering) at the facility providing the sewage sludge that are not described in D.3.e - D.3.h. You may attach existing documentation (e.g., technical or process specifications) to meet this requirement.

D.3. Vector Attraction Reduction. Complete this section for each active sewage sludge unit.

- a. Indicate whether any of vector attraction reduction options 9-11 (See Appendix III B) are met when the sewage sludge is placed on this active sewage sludge unit.

Sewage sludge placed on an active sewage sludge unit must meet one of vector attraction reduction options B 1-11. Options 1-8 are typically met at the point of sewage sludge generation (see Question D.3.e). Options 9-11 are typically met at the point of disposal.

- b. Provide a written description of any treatment processes used at the active sewage sludge unit to reduce vector attraction reduction characteristics of sewage sludge, including an indication of how the treatment fulfills one of options 9-11 for vector attraction reduction. You may attach existing documentation (e.g., technical or process specifications) to meet this requirement.

D.4. Ground Water Monitoring.

Placement of sewage sludge on an active sewage sludge unit must not contaminate an aquifer, as demonstrated through either:
(1) the results of a ground water monitoring program developed by a qualified ground water scientist, or (2) certification by a

qualified ground water scientist that contamination has not occurred.

Contaminate an aquifer means to introduce a substance that causes the standard for nitrate in the Virginia Water Quality Standards Regulation, 9 VAC 25-260-220, to be exceeded in ground water, or that causes the existing concentration of nitrate in ground water to increase when the existing concentration of nitrate in the ground water exceeds the standard for nitrate in 9 VAC 25-260-220.

The ground water quality standard for nitrate is 5 milligrams/liter, except in the Cumberland Plateau physiographic province, where it is 0.5 milligrams/liter.

This section solicits existing ground water monitoring data and other documentation to indicate the potential for contamination of an aquifer at the active sewage sludge unit, and the capability of the owner/operator of the surface disposal site to demonstrate that contamination has not occurred.

- a. If ground water monitoring is conducted for this active sewage sludge unit, provide the following:
 - Available ground water monitoring data; and
 - A written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data (you may attach existing documentation to fulfill this requirement).

For purposes of this application, ground water monitoring means the installation and periodic sampling and analysis of small diameter wells screened in the aquifer below the base of the deepest active sewage sludge unit.

- b. If a ground water monitoring program has been prepared for this active sewage sludge unit (regardless of whether ground water monitoring is currently conducted), submit a copy of the program with this permit application. The program should include the number, depth, and location of all wells; the frequency and method of sampling; and the parameters for which the ground water is tested.
- c. If you have obtained a certification from a qualified ground water scientist that contamination of the aquifer below the active sewage sludge unit has not occurred, submit a copy of the certification with this permit application.

A qualified ground water scientist is an individual with a baccalaureate or post-graduate degree in the natural sciences or engineering who has sufficient training and experience in ground water hydrology and related fields, as may be demonstrated by State registration, professional certification, or completion of accredited university programs, to make sound professional judgments regarding

ground water monitoring, pollutant fate and transport, and corrective action.

- D.5. Site-Specific Limits.** Indicate whether you are seeking site-specific pollutant limits in your permit for the sewage sludge placed on this active sewage sludge unit.

You are allowed to seek site-specific pollutant limits only for good cause, and must do so within 180 days of becoming aware that good cause exists. If you request site-specific pollutant limits with this permit application, you are required to submit information supporting the request, including a demonstration that existing values for site parameters specified by the DEQ differ from the values for those parameters used to develop the pollutant limits in Table 1 of Appendix I. You must also submit follow-up information at the request of the DEQ.

If the DEQ determines that site-specific pollutant limits are appropriate, the DEQ may specify site-specific limits in the permit as long as the existing concentrations of the pollutants in the sewage sludge are not exceeded.

EXCERPTS FROM THE VPDES PERMIT REGULATION, 9 VAC 25-31-10 et seq.

APPENDIX I
SEWAGE SLUDGE POLLUTANT LIMITS

TABLE 1 OF 9 VAC 25-31-540 -- CEILING CONCENTRATIONS

Pollutant	Ceiling Concentration (milligrams per kilogram)*
Arsenic	75
Cadmium	85
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7500

* Dry weight basis

TABLE 2 OF 9 VAC 25-31-540 -- CUMULATIVE POLLUTANT LOADING RATES

Pollutant	Cumulative Pollutant Loading Rate (kilograms per hectare)
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800

TABLE 3 OF 9 VAC 25-31-540 -- POLLUTANT CONCENTRATIONS

Pollutant	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800

* Dry weight basis

TABLE 4 OF 9 VAC 25-31-540 -- ANNUAL POLLUTANT LOADING RATES

Pollutant	Annual Pollutant Loading Rate (kilograms per hectare per 365 day period)
Arsenic	2.0
Cadmium	1.9
Copper	75
Lead	15
Mercury	0.85
Nickel	21
Selenium	5.0
Zinc	140

APPENDIX II

PATHOGEN CONTROL OPTIONS

9 VAC 25-31-710. Pathogens.

A. Sewage sludge - Class A.

1. The requirement in 9 VAC 25-31-710 A 2 and the requirements in either 9 VAC 25-31-710 A 3, A 4, A 5, A 6, A 7, or A 8 shall be met for a sewage sludge to be classified Class A with respect to pathogens.

2. The Class A pathogen requirements in 9 VAC 25-31-710 A 3 through A 8 shall be met either prior to meeting or at the same time the vector attraction reduction requirements in 9 VAC 25-31-720, except the vector attraction reduction requirements in 9 VAC 25-31-720 B 6 through B 8, are met.

3. Class A - Alternative 1

a. Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 9 VAC 25-31-510 B, C, E, or F.

b. The temperature of the sewage sludge that is used or disposed shall be maintained at a specific value for a period of time.

(1) When the percent solids of the sewage sludge is seven percent or higher, the temperature of the sewage sludge shall be 50 degrees Celsius or higher; the time period shall be 20 minutes or longer; and the temperature and time period shall be determined using equation (3), except when small particles of sewage sludge are heated by either warmed gases or an immiscible liquid.

$$D = \frac{131,700,000}{10^{0.1400t}} \quad (3)$$

Where,

D = time in days.

t = temperature in degrees Celsius.

(2) When the percent solids of the sewage sludge is seven percent or higher and small particles of sewage sludge are heated by either warmed gases or an immiscible liquid, the temperature of the sewage sludge shall be 50 degrees Celsius or higher; the time period shall be 15 seconds or longer; and the temperature and time period shall be determined using equation (3).

(3) When the percent solids of the sewage sludge is less than seven percent and the time period is at least 15 seconds, but less than 30 minutes, the temperature and time period shall be determined using equation (3).

(4) When the percent solids of the sewage sludge is less than seven percent; the temperature of the sewage sludge is 50 degrees Celsius or higher; and the time period is 30 minutes or

longer, the temperature and time period shall be determined using equation (4).

$$D = \frac{50,070,000}{10^{0.1400t}} \quad (4)$$

Where,

D = time in days.

t = temperature in degrees Celsius.

4. Class A - Alternative 2

a. Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 9 VAC 25-31-510 B, C, E, or F.

b. (1) The pH of the sewage sludge that is used or disposed shall be raised to above 12 and shall remain above 12 for 72 hours.

(2) The temperature of the sewage sludge shall be above 52 degrees Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12.

(3) At the end of the 72 hour period during which the pH of the sewage sludge is above 12, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50 percent.

5. Class A - Alternative 3

a. Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 9 VAC 25-31-510 B, C, E, or F.

b. (1) The sewage sludge shall be analyzed prior to pathogen treatment to determine whether the sewage sludge contains enteric viruses.

(2) When the density of enteric viruses in the sewage sludge prior to pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to enteric viruses until the next monitoring episode for the sewage sludge.

(3) When the density of enteric viruses in the sewage sludge prior to pathogen treatment is equal to or greater than one Plaque-forming Unit per four grams of total solids (dry weight

basis), the sewage sludge is Class A with respect to enteric viruses when the density of enteric viruses in the sewage sludge after pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the sewage sludge that meets the enteric virus density requirement are documented.

(4) After the enteric virus reduction in paragraph b (3) of this subsection is demonstrated for the pathogen treatment process, the sewage sludge continues to be Class A with respect to enteric viruses when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in paragraph b (3) of this subsection.

c. (1) The sewage sludge shall be analyzed prior to pathogen treatment to determine whether the sewage sludge contains viable helminth ova.

(2) When the density of viable helminth ova in the sewage sludge prior to pathogen treatment is less than one per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to viable helminth ova until the next monitoring episode for the sewage sludge.

(3) When the density of viable helminth ova in the sewage sludge prior to pathogen treatment is equal to or greater than one per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to viable helminth ova when the density of viable helminth ova in the sewage sludge after pathogen treatment is less than one per four grams of total solids (dry weight basis) and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the sewage sludge that meets the viable helminth ova density requirement are documented.

(4) After the viable helminth ova reduction in paragraph c (3) of this subsection is demonstrated for the pathogen treatment process, the sewage sludge continues to be Class A with respect to viable helminth ova when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in paragraph c (3) of this subsection.

6. Class A - Alternative 4

a. Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 9 VAC 25-31-510 B, C, E, or F.

b. The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 9 VAC 25-31-510 B, C, E, or F, unless otherwise specified by the Board.

c. The density of viable helminth ova in the sewage

sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 9 VAC 25-31-510 B, C, E, or F, unless otherwise specified by the Board.

7. Class A - Alternative 5

a. Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella, sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 9 VAC 25-31-510 B, C, E, or F.

b. Sewage sludge that is used or disposed shall be treated in one of the Processes to Further Reduce Pathogens described in 9 VAC 25-31-710 E.

8. Class A - Alternative 6

a. Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella, sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 9 VAC 25-31-510 B, C, E, or F.

b. Sewage sludge that is used or disposed shall be treated in a process that is equivalent to a Process to Further Reduce Pathogens, as determined by the Board.

B. Sewage sludge - Class B.

1. a. The requirements in either 9 VAC 25-31-710 B 2, B 3, or B 4 shall be met for a sewage sludge to be classified Class B with respect to pathogens.

b. The site restrictions in 9 VAC 25-31-710 B 5 shall be met when sewage sludge that meets the Class B pathogen requirements in 9 VAC 25-31-710 B 2, B 3, or B 4 is applied to the land.

2. Class B - Alternative 1

a. Seven samples of the sewage sludge shall be collected at the time the sewage sludge is used or disposed.

b. The geometric mean of the density of fecal coliform in the samples collected in paragraph 2 a of this subsection shall be less than either 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

3. Class B - Alternative 2

Sewage sludge that is used or disposed shall be treated in one of the Processes to Significantly Reduce Pathogens described in 9 VAC 25-31-710 D.

4. Class B - Alternative 3

Sewage sludge that is used or disposed shall be treated in a process that is equivalent to a Process to Significantly Reduce Pathogens, as determined by the Board.

5. Site Restrictions

a. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.

b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil.

c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil.

d. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.

e. Animals shall not be allowed to graze on the land for 30 days after application of sewage sludge.

f. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the Board.

g. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge.

h. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

C. Domestic septage.

1. The site restrictions in 9 VAC 25-31-710 B 5 shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site; or

2. The pH of domestic septage applied to agricultural land, forest, or a reclamation site shall be raised to 12 or higher by alkaline addition and, without the addition of more alkaline material, shall remain at 12 or higher for 30 minutes and the site restrictions in 9 VAC 25-31-710 B 5 a through B 5 d shall be met.

D. Processes to significantly reduce pathogens (PSRP).

1. Aerobic digestion

Sewage sludge is agitated with air or oxygen to maintain aerobic conditions for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 40 days at 20 degrees Celsius and 60 days at 15 degrees Celsius.

2. Air drying

Sewage sludge is dried on sand beds or on paved or unpaved basins. The sewage sludge dries for a minimum of three months. During two of the three months, the ambient average daily temperature is above zero degrees Celsius.

3. Anaerobic digestion

Sewage sludge is treated in the absence of air for a specific

mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 15 days at 35 to 55 degrees Celsius and 60 days at 20 degrees Celsius.

4. Composting

Using either the within-vessel, static aerated pile, or windrow composting methods, the temperature of the sewage sludge is raised to 40 degrees Celsius or higher and remains at 40 degrees Celsius or higher for five days. For four hours during the five days, the temperature in the compost pile exceeds 55 degrees Celsius.

5. Lime stabilization

Sufficient lime is added to the sewage sludge to raise the pH of the sewage sludge to 12 after two hours of contact.

E. Processes to further reduce pathogens (PFRP).

1. Composting

Using either the within-vessel composting method or the static aerated pile composting method, the temperature of the sewage sludge is maintained at 55 degrees Celsius or higher for three days.

Using the windrow composting method, the temperature of the sewage sludge is maintained at 55 degrees or higher for 15 days or longer. During the period when the compost is maintained at 55 degrees or higher, there shall be a minimum of five turnings of the windrow.

2. Heat drying

Sewage sludge is dried by direct or indirect contact with hot gases to reduce the moisture content of the sewage sludge to 10 percent or lower. Either the temperature of the sewage sludge particles exceeds 80 degrees Celsius or the wet bulb temperature of the gas in contact with the sewage sludge as the sewage sludge leaves the dryer exceeds 80 degrees Celsius.

3. Heat treatment

Liquid sewage sludge is heated to a temperature of 180 degrees Celsius or higher for 30 minutes.

4. Thermophilic aerobic digestion

Liquid sewage sludge is agitated with air or oxygen to maintain aerobic conditions and the mean cell residence time of the sewage sludge is 10 days at 55 to 60 degrees Celsius.

5. Beta ray irradiation

Sewage sludge is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (ca. 20 degrees Celsius).

6. Gamma ray irradiation

Sewage sludge is irradiated with gamma rays from certain isotopes, such as Cobalt 60 and Cesium 137, at room temperature (ca. 20 degrees Celsius).

7. Pasteurization

The temperature of the sewage sludge is maintained at 70 degrees Celsius or higher for 30 minutes or longer.

APPENDIX III

VECTOR ATTRACTION REDUCTION OPTIONS

9 VAC 25-31-720. Vector attraction reduction.

A. 1. One of the vector attraction reduction requirements in 9 VAC 25-31-720 B 1 through B 10 shall be met when bulk sewage sludge is applied to agricultural land, forest, a public contact site, or a reclamation site.

2. One of the vector attraction reduction requirements in 9 VAC 25-31-720 B 1 through B 8 shall be met when bulk sewage sludge is applied to a lawn or a home garden.

3. One of the vector attraction reduction requirements in 9 VAC 25-31-720 B 1 through B 8 shall be met when sewage sludge is sold or given away in a bag or other container for application to the land.

4. One of the vector attraction reduction requirements in 9 VAC 25-31-720 B 1 through B 11 shall be met when sewage sludge (other than domestic septage) is placed on an active sewage sludge unit.

5. One of the vector attraction reduction requirements in 9 VAC 25-31-720 B 9, B 10, or B 12 shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site and one of the vector attraction reduction requirements in 9 VAC 25-31-720 B 9 through B 12 shall be met when domestic septage is placed on an active sewage sludge unit.

B. 1. The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38 percent, calculated according to the method in 9 VAC 25-31-490 B 8.

2. When the 38 percent volatile solids reduction requirement in 9 VAC 25-31-720 B 1 cannot be met for an anaerobically digested sewage sludge, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. When at the end of the 40 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 17 percent, vector attraction reduction is achieved.

3. When the 38 percent volatile solids reduction requirement in 9 VAC 25-31-720 B 1 cannot be met for an aerobically digested sewage sludge, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15 percent, vector attraction reduction is achieved.

4. The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.

5. Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40 degrees Celsius and the average temperature of the sewage sludge shall be higher than 45 degrees

Celsius.

6. The pH of sewage sludge shall be raised to 12 or higher by alkaline addition and, without the addition of more alkaline material, shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours.

7. The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials.

8. The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials.

9. a. Sewage sludge shall be injected below the surface of the land.

b. No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.

c. When the sewage sludge that is injected below the surface of the land is Class A with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

10. a. Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

b. When sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

11. Sewage sludge placed on an active sewage sludge unit shall be covered with soil or other material at the end of each operating day.

12. The pH of domestic septage shall be raised to 12 or higher by alkaline addition and, without the addition of more alkaline material, shall remain at 12 or higher for 30 minutes.

APPENDIX IV

NOTICE AND NECESSARY INFORMATION

This form is to assist compliance with the bulk sewage sludge notification requirements (9 VAC 25-31-530 F and/or H). Please note, however, that if the sewage sludge meets the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of sewage sludge to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.

Part I - To Be Completed by PREPARERS of Sewage Sludge

A. Please provide pollutant concentrations

Name	Concentration (mg/kg) Dry Weight	Pollutant Concentrations (Table 3, 9 VAC 25-31-540) (Monthly Average)	Ceiling Concentrations (Table 1, 9 VAC 25-31-540) (Daily Maximum)
Arsenic		41 mg/kg	75 mg/kg
Cadmium		39 mg/kg	85 mg/kg
Copper		1500 mg/kg	4300 mg/kg
Lead		300 mg/kg	840 mg/kg
Mercury		17 mg/kg	57 mg/kg
Molybdenum		-	75 mg/kg
Nickel		420 mg/kg	420 mg/kg
Selenium		100 mg/kg	100 mg/kg
Zinc		2800 mg/kg	7500 mg/kg
Total Nitrogen		N/A	N/A

- Sludge may not be land applied if any pollutant exceeds these values.

B. Pathogen Reduction (9 VAC 25-31-710)

Class A Class B

C. Vector Attraction Reduction (9 VAC 25-31-720)

Option 1 Option 2 Option 3 Option 4
 Option 5 Option 6 Option 7 Option 8
 No vector attraction reduction options were performed

D. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title _____

Signature _____ Date Signed _____

Telephone number _____

Part II - To Be Completed by LAND APPLIER of Sewage Sludge

A. If the pollutant levels in the sewage sludge do not meet the pollutant concentration limits in Table 3, then the land applier must provide the land owner with the following information:

- 1. Location of land application site _____
- 2. Number of hectares where the sewage sludge was applied _____
- 3. Date and time bulk sewage sludge was applied _____
- 4. Amount of bulk sewage sludge applied _____
- 5. Record the amount of each metal and nitrogen applied in pounds per acre or kilogram per hectare _____

B. If the preparer did not perform vector attraction reduction options (see Part I), then either option 9 or 10 must be performed by the land applier. Please indicate if option 9 or 10 was performed.

- Option 9 - Subsurface Injection
- Option 10 - Incorporated into the soil
- N/A

C. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title _____

Signature _____ Date Signed _____

Telephone number _____