

## **NPDES Permit No. ILG62**

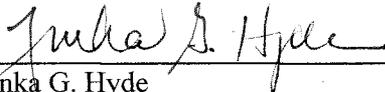
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NPDES Programs Branch  
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### **NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

#### **General Permit for New and Replacement Surface Discharging Wastewater Treatment Systems**

#### **Region 5's Response to Public Comments**

On September 17, 2012, Region 5 initiated a public comment period on NPDES Permit No. ILG62, a General Permit for New and Replacement Surface Discharging Wastewater Treatment Systems in the State of Illinois. A public meeting was held on November 1, 2012. The public was able to submit comments through attending the public meeting, sending in written comments, or by submitting them on-line. The public comment period began on September 17, 2012 and ended November 15, 2012. A total of 310 persons and organizations submitted comments on the General Permit. Pursuant to 40 C.F.R. § 124.17, EPA, Region 5 must “(1) specify which provisions, if any of the draft permit have been changed in the final permit decision, and the reasons for the change; and (2) briefly describe and respond to all significant comments on the draft permit. . . raised during the public comment. . .” Following is a list of the significant changes made to the final General Permit, in response to comments on the draft General Permit:

  
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Tinka G. Hyde  
Director, Water Division  
United States Environmental Protection Agency  
Region 5

## **SUMMARY OF SIGNIFICANT CHANGES FROM DRAFT PERMIT**

Change 1: EPA added footnote ‘a’ to Section-I.B.1 of the General Permit to clarify that the Illinois Department of Public Health or local county health department will evaluate the eligibility requirements regarding proximity to an available sewer connection.

Change 2: The General Permit defines Soil Classifiers as being individuals certified by either the Illinois Soil Classifiers Association (ISCA), or the Soil Science Society of America, (SSSA). The draft General Permit included a link for those scientists certified by the ISCA, but did not include an equivalent link for the SSSA. Section I.B.2.a was revised to include an equivalent link for qualified Soil Classifiers certified by the SSSA; and language was added to clarify the distinction between the two links.

Change 3: EPA revised Section I.B.3.b.ii to expand the list of systems to be evaluated as part of the technological feasibility analysis.

Change 4: EPA added footnote ‘b’ to Section I.B.3.b to clarify how a Site Evaluator should evaluate the various systems.

Change 5: The list of systems in Section I.B.3.b.ii represents the more common types of system designs, but it is not exhaustive, or inclusive of all of the potential systems that may be used. Therefore, Section I.B.3.b.iii was added to ensure that Site Evaluators may evaluate new and emerging technologies developed during the permit term as part of the Site Evaluation.

Change 6: EPA added footnote ‘d’ to Section I.C.1.g to clarify that the Illinois Department of Public Health or local county health department will evaluate the limitation on coverage regarding an available sewer connection.

Change 7: EPA added Section I.D.5 to revise the notification procedure in instances in which EPA has denied coverage under the General Permit. Under the new procedure, EPA will notify the appropriate county health department in addition to the applicant. This will help ensure that county health departments do not issue construction permits for Surface Discharging Systems when coverage under the General Permit has been denied.

Change 8: EPA revised Section II.B.2 to reference Part I.D.5 regarding notification procedures when permit coverage is denied. See also Change 7 above for additional detail.

Change 9: EPA added Sections II.B.3, a, b, and c to include a notification procedure for transfers of ownership.

Change 10: Regarding transfer of ownership, EPA added footnote ‘e’ to clarify that the new Owner is allowed to discharge upon EPA’s receipt of the Simplified Notice of Intent (NOI).

Change 11: EPA added Sections II.D.2, a, b, c, and d to provide the contents of the Simplified NOI that will be used for transfer of ownership, and maintaining coverage with any subsequent General Permit.

Change 12: EPA revised Sections II.I.2.b, and c to reflect revisions made to the contents of the NOT.

Change 13: EPA added footnote ‘f’ to Section II.H.1.a. to direct individuals covered under the General Permit to submit the Simplified NOI upon reissuance of the General Permit.

Change 14: EPA revised Section III.A.1.c to allow the use of either manufacturer specified, or equivalent replacement components.

Change 15: EPA modified the table of effluent limits entitled “Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States” as follows:

- a. The relationship between TSS and Turbidity is highly variable. Due to this variability, EPA could not derive an alternative limit for Turbidity, and, as a result, removed the option to use Turbidity as an alternative effluent limit for TSS. EPA also revised note 2 in the draft permit, (which became note 1 in the final permit) to the table of effluent limits to reflect this change.
- b. EPA removed the requirement for follow-up sampling where initial sampling showed sampling results above the limit or benchmark for pollutants.
- c. EPA added note 6 to provide the framework for reporting on the narrative effluent limits for oil, odor, color, and floating debris.
- d. The Illinois EPA provided its Clean Water Act Section 401 certification of the General Permit subject to revising the dissolved oxygen effluent limit to be a minimum of 5.0 milligrams per liter. Therefore, EPA changed the dissolved oxygen effluent limitation to be 5.0 milligrams per liter.

Change 16: EPA modified the table of effluent limits entitled “Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States where the discharge is within 100 feet of the Average Water Level of lakes, ponds or impoundments” as follows:

- a. EPA removed the requirement for follow-up sampling where initial sampling showed sampling results above the limit or benchmark for pollutants.
- b. EPA added note 4 to provide the framework for reporting on the narrative effluent limits for oil, odor, color, and floating debris.

Change 17: EPA revised Section III.C.2 to clarify that “licensed installers” refers to Illinois Department of Public Health licensed Private Sewage Disposal System Installation Contractors. Additionally, EPA added those individuals holding either the basic or advanced Certified Installer of Onsite Wastewater Treatment System certification to the list of Qualified Individuals

who may perform semi-annual inspections and effluent monitoring as required under the General Permit.

Change 18: EPA added footnote ‘g’ to Section III.C.3.d. to include sampling instructions.

Change 19: EPA added Section III.C.6.a to provide instructions on how to report effluent sampling results on the Discharge Monitoring Report when the result is less than the Method Detection Limit.

Change 20: EPA added Section III.C.7 to allow a case-specific Method Detection Limit and Level of Quantitation to be determined for any test method approved for use under 40 C.F.R. Part 136.

Change 21: EPA added Part III. E. to clarify that the effect of the General Permit does not preclude any local health department from being able to impose more prohibitive restrictions on surface discharging systems than those set forth in the General Permit.

Change 22: EPA added the following definitions to Part IV of the General Permit.

- a. Level of Quantitation
- b. Method Detection Limit

Change 23: EPA revised the following definitions in Part IV of the General Permit:

- a. Site Evaluator was revised to include individuals working under direct supervision of an Illinois Licensed Environmental Health Practitioner.
- b. Soil Classifier was revised to exclude members of the Illinois Soil Classifiers Association (ISCA) who are members of the ISCA but not certified.

Change 24: EPA revised the Economic Feasibility Calculator in Appendix I of the General Permit to make it consistent with General Permit.

Change 25: EPA revised the Notice of Intent (NOI) in Appendix II of the General Permit as follows:

1. Section III was revised to include space for entry of latitude and longitude coordinates.
2. Web links included with the public notice that are not inactive were replaced with a dedicated web link for the General Permit in various sections of the NOI instructions.
3. Section III instructions were revised to include an EPA web link that provides instruction on acceptable format and precision for entering the latitude and longitude coordinates.

4. Section III, and the Section III and Section VII instructions have been revised to be consistent with revisions made to 77 IAC 905.20(e) regarding connection to available sewer connections.
5. Section III, and the corresponding instructions have been revised to reflect EPA's deference to the Illinois Department of Public Health, and/or local county health departments regarding determinations applicable to the implementation of 77 IAC Section 905.20(e) regarding connection to available sanitary sewer connections.
6. Section VII was revised to separate the decision criteria into two categories (owner-occupied residential, and non-owner-occupied residential and non-residential). This separation is to make clear that if a landlord owns a residential unit, the property may be evaluated under the technical feasibility criterion of the General Permit, but is not available for coverage under the economic feasibility criterion. Similarly, businesses and units of government may only seek coverage under the General Permit's technical feasibility criterion.

Change 26: EPA revised the Notice of Termination (NOT) in Appendix III as follows:

1. Section I was revised to be consistent with the General Permit regarding transfer of ownership by replacing "New Owner or Operator" with "New Owner" which is defined in the General Permit.
2. The Section II heading was revised to make the terminology between the NOT and the Simplified Notice of Intent consistent.
3. Section III was added to require that the location of the Surface Discharging System be provided. Instructions for filling this section out were also added.
4. The instructions for Section IV regarding unsigned forms were revised to more accurately emphasize that the purpose of the form is to terminate coverage.

Change 27: Appendix V consists of a table of Alternative Soil Group classifications. It was revised to include the missing footnotes referenced in the table.

Change 28: EPA added Appendix VI to include a simplified Notice of Intent (Simplified NOI) for transfers of ownership, and for renewing coverage when the General Permit is reissued.

Change 29: EPA revised Section I.B.1, and Section I.C.1.g to be consistent with revisions made to 77 IAC 905.20(e) regarding connection to available sewer connections.

Change 30: EPA revised Section I.B.2.a.iv to be consistent with revisions made to 77 IAC 905.55 regarding the site characteristics that must be determined from a soil investigation.

Change 31: EPA revised Section I.B.4.b.i to clarify that the system to be evaluated to determine economic feasibility is the least expensive zero discharging system that is technically feasible for the site.

A discussion of the most significant comments received on the draft General Permit, and EPA, Region 5's responses, including an explanation of any changes made to the draft General Permit as a result of the comments, follow:

### **SIGNIFICANT COMMENTS RECEIVED AND REGION 5's RESPONSES TO THOSE COMMENTS**

Comment: As Director of Environmental Health in Pike County for over 20 years now, I see little potential from pollution into the waters of the United States from surface discharging private sewage disposal systems in this county. We have good soils, low population density and Federal Emergency Management Agency (FEMA) Floodplain regulations which prevent building accessibility to our rivers. The main effect we will see will be on the homes and small businesses in our rural, unsewered communities where the lot sizes have been set for many years and were never sized for modern water usage.

EPA Response: There is a significant potential for pollution from surface discharging systems. The Illinois Department of Public Health has maintained statistics on the number of private sewage disposal systems installed annually and has done this since 1996. From 1996 through 2011, there have been 72,815 surface discharging systems installed which represents 42.4% of the total number of private sewage disposal systems installed in the State of Illinois. In recent years, almost half of the total number of private sewage disposal systems installed have been surface discharging systems.

EPA has the responsibility to protect human health and the environment. Surface discharging systems present a risk to both human health and the environment. Therefore, to reduce the number of surface discharging systems that are installed, potential permittees are required first to evaluate whether zero discharging systems are feasible on the basis of technology and economics. Allowing individuals to install surface discharging systems only after they have first evaluated the feasibility of zero discharge systems will ensure that surface discharging systems are installed only when necessary due to technological or economical constraints, consistent with the Clean Water Act (CWA). Furthermore, reducing the number of surface discharging installations will reduce the threat these systems pose to human health and the environment.

Drinking water contaminated by sewage has been cited as the principal cause for most outbreaks of waterborne illnesses. There are a number of case studies that document human illness due to exposure to pathogens found in sewage. However, there are not a lot of case studies that show a nexus between human illness and onsite wastewater practices, but there are a few including a case study published in the Journal of Infectious Diseases in 2003 entitled, "A Waterborne Outbreak of Norwalk-Like Virus among Snowmobilers."

In February 2001, episodes of acute gastroenteritis (e.g. stomach or intestinal flu) were reported to the Wyoming Department of Public Health. In response, the Wyoming Department of Public Health conducted a retrospective cohort study to identify the cause of the reported illnesses. The study concluded that the reported illnesses were the result of a contaminated groundwater supply. According to the study, the proprietor expanded the size of the lodge in November of 2000 to accommodate more guests. However, the onsite septic system was not sized to handle the increased sewage load from the additional guests and was found to be the cause of the

contamination. The study serves to illustrate the potential human health impact that onsite systems pose.

You indicate that there are good soils in Pike County, low population density, and FEMA floodplain regulations in place. These all seem to indicate that surface discharging systems should not account for a significant portion of Pike County's private sewage system portfolio. To the extent that homes and small businesses in rural unsewered communities are situated on small lots and require replacement of an existing system, the General Permit provides flexibility for individuals seeking coverage under the permit.

Comment: Administration and enforcement of this General Permit is an EPA project. EPA has created a database and assured us the Agency can manage this permit database and not create any hindrances or issues with timely responses. And, in preparing this draft, EPA has chosen to rewrite some provisions in the Illinois Sewage Code changing sewage loading rates and disallowing Illinois licensed contractors to perform onsite evaluations--without consulting IDPH or professional environmental organizations for any formal thoughts, or even comments prior to this "Draft." This stands to create a world of confusion for homeowners, contractors and local health departments as we try to adopt these federal mandates into our programs.

EPA Response: EPA, and subject to EPA's authorization, Illinois EPA, are authorized to implement the CWA. Initially, once the General Permit has been issued, only EPA will enforce this General Permit.

With regard to the manner in which this General Permit is being issued, EPA is required to follow procedures for decision-making identified at 40 C.F.R. Part 124. Specifically, 40 C.F.R. § 124.10 requires public notice that a draft permit has been prepared by EPA, which also makes it available for public comment. EPA has followed the procedures necessary to solicit comment on the draft General Permit and responded to comments specifically regarding areas of the General Permit that depart from the current Private Sewage Disposal (PSD) Code provisions. Additionally, EPA has received comments regarding the General Permit's exclusion of Illinois PSD-licensed contractors to perform onsite evaluations; EPA's response to these comments is set forth in Section I.B.3. of this Response to Comments. EPA would like to emphasize that the Agency made these changes in the General Permit in order to carry out the CWA.

EPA has determined that where the Illinois Department of Public Health regulations conflict with the requirements of this General Permit, the General Permit requirements shall prevail. Persons who cannot meet General Permit requirements may seek coverage under an individual permit from the Illinois EPA, or must not discharge to waters of the United States. This result that the General Permit prevails is only for instances where there is an actual conflict between the PSD Code and its regulations and the requirements of the General Permit. In any situation where there is not a conflict between the General Permit and the PSD Code, all other Illinois Department of Public Health rules stand as a matter of Illinois law.

EPA is aware of a misinterpretation of the PSD Code by some local public health departments that has created a conflict between the Code and the effective date of the General Permit.

Section 7(c) of the Illinois Private Sewage Disposal Licensing Act, 225 ILCS 225/7(c) states that:

“6 months after the date of issuance of a general NPDES permit for surface discharging private sewage disposal systems by” . . . the United States Environmental Protection Agency . . . a surface discharging private sewage disposal system with a discharge that enters the waters of the United States, . . . shall not be constructed or installed by any person unless he or she has a coverage letter under a NPDES permit.”

Some Illinois county health departments have apparently misinterpreted the above provision, thinking that Section 7(c) allows them to issue construction permits for surface discharging systems for six months after the effective date of the General Permit. Any current discharges of pollutants to waters of the United States without a permit and not within the scope of a CWA exemption is a violation of the CWA. Once EPA has issued the General Permit to regulate surface discharging systems, the federal permit preempts the conflicting provisions of the State statute, and local departments of health should not issue construction permits, unless the potential permittee can demonstrate compliance with the General Permit, and the health department has not received notice that coverage has been denied.

Comment: The NPDES permitting process was designed for large volume discharges generated by manufacturing plants and publicly owned treatment works. This draft may fail to address the concerns of small domestic users and the needs of small unsewered communities. Please remember this is a system of last resort, and residents applying for this General Permit basically have no other wastewater option.

EPA Response: Section 301(b)(2)(A) of the CWA requires the elimination of the discharge of all pollutants if that discharge is both technically and economically achievable. This authority under the CWA is very broad and does not exclude any dischargers on the basis of size or any other distinction from having to obtain the necessary coverage under the appropriate NPDES permit to be able to discharge pollutants to waters of the United States. Any discharge of pollutants to waters of the United States without coverage under an appropriate NPDES permit and not within the scope of a CWA exemption is unlawful.

Comment: The process described in the draft General Permit does not address the functions and diversity of small residential waste water treatment systems. Other states issuing NPDES permits for small surface discharging systems have implemented specific discharge exemptions based on discharge locations and property acreage. This draft General Permit does not address these possibilities.

EPA Response: Surface discharging systems pose a threat to human health and the environment. The General Permit is intended to mitigate the threat posed by these systems by requiring individuals seeking to install a new or replacement surface discharging system to first evaluate alternative zero discharge or soil-based systems on the basis of technology and economics consistent with the CWA. The process described in the General Permit provides a sufficient basis from which a conclusion can be made whether specific sites can support zero discharge systems.

EPA recognizes that states handle surface discharging systems in a number of different ways. Region 5's research regarding this subject has shown that the majority of states address these systems either by prohibiting their installation or requiring coverage under an NPDES permit. However, EPA would like to emphasize that any discharge of pollutants to waters of the United States is unlawful without an NPDES permit.

Comment: In summary, the commenter appreciates the opportunity to make comment on the draft permit. The draft General Permit generates more questions for us than answers and provides no resolutions for effective action. This draft General Permit is a model for a bureaucratic system which will effectively hamper economic development in rural counties as it is currently written. The draft General Permit is a good start in an attempt to resolve errant decisions from nearly 40 years ago. However, the draft leaves many questions unanswered. It assumes action from agencies and private entities that are beyond their capabilities and authority and does not establish a reasonable solution. It regulates personal private sewage disposal systems that discharge to the navigable waters of the United States in a manner that is less clear than the water pollution problems EPA has addressed in the past.

EPA Response: EPA appreciates the comments made by the commenter on the General Permit. EPA does not believe that development in rural communities will be hampered as a result of the General Permit, since it takes affordability into account. EPA would like to emphasize that the Agency is not prohibiting the installation of surface discharging systems in Illinois, but rather requiring anyone who wishes to install one and discharge to waters of the United States first to evaluate alternative zero discharge systems on the basis of technology and economics.

Since July 27, 2005, EPA was placed on notice of potential violations of the CWA by thousands of existing surface discharging systems in Illinois when certain petitioning environmental groups filed a Notice of Intent to Sue that asked Region 5 to withdraw authorization of the NPDES program from Illinois. Since the State has not made the necessary PSD Code changes through the Illinois rulemaking process, EPA is seeking to use alternative means to resolve the issues identified in the Notice of Intent to Sue and apply CWA standards to decisions about new discharges. The General Permit developed by EPA resolves the issues raised by the petitioners, for new and replacement surface discharging systems.

EPA would also like to point out that issuance of this General Permit is not intended to assume the responsibilities of other agencies. The General Permit that EPA is issuing is being done in accordance with the CWA. Since EPA is the permitting authority, it is EPA's responsibility to administer and to enforce the General Permit, if necessary.

## **Part I: Coverage Under This Permit:**

### **A. Permit Area:**

Comment: Several commenters urged EPA to adopt a clearer definition of "waters of the United States." Others wondered whose responsibility it would be to make that determination.

EPA Response: Congress, in Section 502 of the CWA, defined “navigable waters” broadly as encompassing all “waters of the United States.” EPA has issued a regulatory definition of the term “waters of the United States” at 40 CFR § 122.2. EPA’s definition includes, among other things, traditional navigable waters, tributaries of traditional navigable waters, and wetlands that are adjacent to traditional navigable waters or their tributaries. The Supreme Court has determined the scope of Congress’ intent to regulate “waters of the United States” in several opinions of the Court, most recently in the case of Rapanos v. United States, 126 S. Ct. 2208 (2006).

EPA has provided guidance to individuals and companies impacted by the Rapanos decision; that guidance and other materials are set forth at <http://water.epa.gov/lawsregs/guidance/wetlands/CWAwaters.cfm>. This guidance discusses EPA’s jurisdiction over traditional navigable waters, relatively permanent non-navigable streams, non-navigable streams that are not relatively permanent, and wetlands adjacent to those waters to help EPA and the Corps of Engineers, as well as citizens, identify whether particular surface waters are “waters of the United States.”

It is the responsibility of the potential discharger to determine whether or not his or her system might discharge to a water of the United States. EPA realizes, though, that the Rapanos guidance may be difficult for the average person to apply. As a common sense way of evaluating whether you are required to be covered by a permit, if you were to install a new or replacement surface discharging system on your land, would effluent or pollutants (even diluted ones) from your system end up in a water of the United States or a conveyance, such as a ditch, drainage pipe, channel, tunnel, conduit, discrete fissure or other means that leads to a water of the United States? In evaluating this question, consider that rain water, irrigation activities, lawn sprinkling systems and any other ways that water can carry pollutants to waters of the United States. If so, even though pollutants would not be carried to waters of the United States unless your area experienced an exceptionally wet season, you are still required to obtain coverage under a permit. Only if you are sure that your system would not discharge pollutants to a water of the United States or a conveyance that leads to a water of the United States should you forego obtaining a permit for a surface discharging system. If you do not obtain a permit, but actually discharge, you may be subject to an enforcement action under the CWA.

Comment: We feel that requiring NPDES permits on surface discharging private sewage disposal systems will do very little to improve water quality of our lakes and streams since the majority of these types of private sewage disposal systems have a discharge that remains on the owner's property. The Shelby County Board does not support the General Permit; as it will halt economic growth and development within the State of Illinois; be more stringent than other states; cost taxpayers thousands of dollars and place a financial hardship on our constituents. The elimination of surface discharging private sewage disposal systems will create a much greater public health threat with increasing failures of subsurface sewage disposal systems being forced into tight clay soils, resulting in failed septic systems that would subject homeowners to pathogenic organisms being released to the ground surface that have the significant potential for human disease outbreaks. With these concerns in mind, the Shelby County Board is requesting that septic systems that do not directly discharge into a stream, river, or body of water or tributary that does not permanently and continuously flow for more than three months out of the

year, whereby the system's discharge can remain on the homeowner's property to be "EXEMPT" from the General Permit.

EPA Response: EPA has the responsibility to protect human health and the environment. Subsurface discharging system designs which appropriately consider wastewater flow, strength, and site/soil conditions (e.g., soil type and characteristics, restrictive horizons, and groundwater, slopes), are fully capable of protecting groundwater and keeping effluent below the surface.

Surface discharging systems present a risk to both human health and the environment. Therefore, to reduce the number of surface discharging systems that are installed and would discharge to waters of the United States, individuals are required to first evaluate whether zero discharging systems are feasible on the basis of technology and economics. Following this analysis, a surface discharging system can only be installed and discharge to waters of the United States if it has been demonstrated that a zero discharging system is not feasible either on the basis of technology or economics. Requiring individuals to evaluate the feasibility of zero discharge systems first will ensure that surface discharging systems are installed only when necessary due to technological, or economical constraints consistent with the CWA. Furthermore, reducing the number of surface discharging installations will reduce the threat these systems pose to human health and the environment.

As to the commenter's claim that this would impose a cost on taxpayers, few taxpayers will be permittees under the General Permit. Only persons who are installing new or replacement surface discharging systems will be permittees required to comply with the inspection and sampling requirements of the General Permit, which are not substantial.

The General Permit will not eliminate existing surface discharging systems, as the permit does not impose any requirement on such systems. This General Permit is intended to cover new and replacement wastewater treatment systems that discharge to waters of the United States in Illinois, including discharges to conveyances that result in a discharge of pollutants to those waters, as discussed in response to the above comment. It is the responsibility of the discharger to determine whether or not a discharge of pollutants from a wastewater system constitutes a discharge to waters of the United States, either directly, or through a pipe, ditch, or other conveyance. Pollutant discharges to waters of the United States from surface discharging systems not permitted under the NPDES permit program are unlawful under the CWA.

## **B. Eligibility**

### 1. New and Replacement Systems

Comment: Will County and other counties have local ordinances regarding discharging systems including requirements for an annual permit (which we charge for), effluent parameters, service contracts and sampling. Can we continue to enforce our ordinances regarding the existing systems?

EPA Response: Will County can continue to enforce its ordinances. Even so, persons who are covered by the General Permit need to meet the General Permit conditions.

Comment: EPA should not require the owners of perfectly good working systems to tear out their systems and install new ones. Too many people cannot afford this, and this is an example of bureaucrats in Chicago who do not know downstate Illinois.

EPA Response: This General Permit is only for New and Replacement systems. It will not require any current owners of existing systems to do anything with their current systems. However, if and when that system needs to be replaced, if this occurs within the five years that this General Permit is in effect, any replacement system that would discharge to waters of the United States would have to be evaluated under the criteria in this General Permit. The General Permit does include an economic feasibility component, so households that cannot afford a subsurface system will be able to replace a failing surface discharging system with another surface discharging system either under the provisions of this General Permit or through an individual permit from Illinois EPA.

Comment: The General Permit should only cover new surface discharging treatment systems. Replacement systems should be extended the same exemption as the systems they are replacing.

EPA Response: Surface discharging systems, whether installed as new installations or to replace an existing system, pose a threat to human health and the environment, and because of this threat, replacement systems were included in the scope of the General Permit. Pollutants common in domestic wastewater, such as pathogens, can cause communicable diseases and pose a significant threat when partially treated sewage pools on ground surfaces or migrates to recreational waters. Furthermore, replacement of a system presents an opportunity to install the Best Available Technology Economically Achievable, as contemplated in the CWA.

Comment: Many of our county residents are also familiar with Missouri's wastewater rules and practices and know these same stringent requirements are not spelled out in Missouri codes. Missouri residents with over three acres are often exempted from obtaining any private sewage permits at all. Is this a fair and equitable application of federal requirements? It seems not.

EPA Response: Regarding your question about whether issuance of the General Permit is a fair and equitable application of federal requirements, EPA respectfully disagrees with your comment. Based on Region 5's review of Missouri's laws, it appears that surface discharging systems are effectively prohibited, based on the Missouri statutory definition of "on-site sewage disposal system." This is defined at Section 701.025 of the Missouri Revised Statutes to mean *any system handling or treatment facility receiving domestic sewage which discharges into a subsurface soil absorption system and discharges less than three thousand gallons per day.* (emphasis supplied). This definition, then, does not appear to allow a surface discharging system. EPA views a prohibition of surface discharging systems to be more restrictive than the limitations of those systems set forth in the General Permit. Instead of prohibiting the installation of surface discharging systems, the General Permit requires anyone who plans to install one and discharge to waters of the United States first to conclude that a zero discharging system is not feasible on the basis of technology or economics, consistent with the CWA.

For sites of three acres or more of available land, EPA would not expect there to be any need for a surface discharging system, since it would appear as if there would be ample area for a subsurface seepage field to eliminate discharges from onsite sewage systems.

Comment: It is just a matter of time before there is also a permit for existing systems, and people will not be able to afford those permits, either. It is my understanding the NPDES permits will be at no charge; however, the requirement for the system to be inspected twice a year by qualified inspectors, licensed by IDPH, will result in an estimated cost of a maintenance agreement of about \$200 per year and the average estimated cost of sampling is \$100 per year. This requirement for homeowners to have their systems routinely inspected annually will put an added financial burden on most rural families who use a private sewage disposal system. Please note my objection to this proposal by the EPA to require general permits for septic system discharge systems along with costly annual inspections and providing proof of maintenance for the system to Illinois EPA.

EPA Response: The General Permit applies only to new and replacement surface discharging wastewater treatment systems that discharge pollutants to waters of the United States. Any permit for existing systems would be issued by Illinois EPA. EPA does hope, sometime in the future, that Illinois EPA will develop a permit for existing surface discharging systems, since they also can be associated with environmental concerns and violate the CWA and the Illinois Environmental Protection Act when the discharges enter waters of the United States. Existing systems, however, present very different problems from new and replacement systems, and the provisions of a general permit for these systems are likely to be different. EPA and authorized states must provide for a public comment period for every NPDES permit under the CWA and by EPA regulation before a permit becomes final. Thus, if Illinois EPA proposes a draft permit for existing systems, people who will be affected by that permit will have an opportunity to provide comments on the draft permit before it is finalized, so that Illinois EPA will be made aware of their objections and concerns.

## 2. Technological Feasibility:

### a. Soil Investigation

Comment: The draft General Permit provides that “Where the [Illinois Private Sewage Disposal (PSD) Code] and this permit conflict, the approach described in this General Permit must be used.” The required credentials for Soil Classifiers who can perform the soil evaluations needed to qualify a property for the Draft General Permit, are very different from, and seemingly more restrictive than, the requirements to qualify as a soil evaluator under the PSD Code. We believe that if there are not enough qualified people available and willing to serve as Soil Classifiers, this could become a practical "bottleneck" that creates delay and additional cost for property owners who wish to have coverage under the General Permit. This could have an even more dramatic impact on new residential development in parts of Illinois that are heavily reliant on surface discharging septic systems.

EPA Response: The Soil Science Society of America provided the number of certified soil scientists in Illinois and all of the neighboring states (Missouri, Iowa, Wisconsin, Indiana, and

Kentucky). The number of certified soil scientists for Illinois, and those in each neighboring state that are within close proximity to Illinois, are as follows:

Illinois-48 certified through the Soil Science Society of America, 29 certified through the Illinois Soil Classifiers Association. Note that the total number of certified professional soil scientists in Illinois is 61, since individuals with certification from both the SSSA and ISCA were only counted once.

Missouri-6 (Saint Charles, Saint Louis, Bollinger, and Cape Girardeau counties)

Wisconsin-4 (Kenosha and Walworth counties)

Indiana-3 (Sullivan, Gibson, and Vanderburgh counties)

Kentucky-1 (Caldwell county)

Given the number of certified soil scientists and their distribution throughout the State and neighboring states, EPA does not think that there will be any shortage of availability of these individuals in any area of the State of Illinois.

Comment: With regard to the qualification of those who can conduct soil investigations, several commenters noted that the Illinois Soil Classifiers Association (ISCA) had recently merged the two classifications of Certified Professional Soil Classifier (CPSC) and Certified Professional Soil Scientist (CPSS) into the single title of Certified Professional Soil Scientist. Several of these commenters stated that Illinois licensed professional engineers should not be allowed to conduct soil investigations; another commenter disagreed and thought that they were qualified to conduct such investigations.

EPA Response: We agree with the commenters who stated that Illinois licensed professional engineers should not be allowed to conduct soil investigations, and have deleted them from the list of qualified individuals who may conduct those investigations. In general, soil science is a very specific area of study, requiring a significant amount of experience analyzing soil samples in order for an individual to be able to properly characterize the various properties of soils, as required by the permit. Registered professional engineers represent a very broad group of professionals that specialize in a wide variety of engineering disciplines such as agricultural, chemical, environmental, and mechanical, to name a few. Given the broad nature of professional engineering disciplines, an individual's being certified as a registered professional engineer does not ensure that the individual has the necessary background and training to conduct a soil analysis. Therefore, Region 5 has excluded professional engineers from the list of qualified people that may conduct a soil analysis in conjunction with the General Permit.

*Section I.B.2.a. provides the procedures for conducting a Soil Investigation, and provides that it must be conducted by a Soil Classifier. EPA revised Section I. B.2.a.i to exclude professional engineers, and also changed the definition of "Soil Classifier" in Part IV, Definitions.*

Comment: One area of conflict between the PSD Code and the draft General Permit is in the use of percolation testing as a means to determine the adsorption capacity of the soil. The PSD Code allows percolation testing. The soil investigation and site evaluation approach under the draft General Permit does not allow for the use of percolation tests. Why does the draft General Permit not allow for the use of percolation tests?

EPA Response: Percolation tests have been used in the past to determine the suitability of a site for subsurface wastewater discharge. However, the results from percolation tests are variable and not always reproducible and is why they are not allowed in the General Permit. A better predictor for the soil classifier is that the examination of the morphological features of the soil, particularly its structure, texture, and consistence. These properties, as well as others, provide a more complete description of the soil characteristics and help the soil classifier determine whether a site can support a zero discharge system without the variability typically observed with percolation tests.

Comment: My comment pertains specifically to who qualifies as a “Soil Classifier.” I would like to recommend that EPA strike those who are listed as full or associate members of the Illinois Soil Classifiers Association as being not appropriate. This individual is not certified, nor would he or she be qualified as described. Membership in an organization and being certified by a profession are two very different things. Membership is purchased by anyone who would like it and is willing to pay the fees. Certification, on the other hand, is earned and the individual must meet very specific requirements to become certified and to maintain it through continuing education. A full or associate member would not have met any of the requirements that I described above. Requiring membership in ISCA is not the same as being certified plus requiring membership to do certain aspects of work has been viewed in past court cases as a restraint of trade issue. We do not require membership in SSSA for those who become Certified Professional Soil Scientists (CPSS) or Certified Professional Soil Classifiers. If this point were added to allow junior staff to conduct supporting functions for the CPSS/C as it seems to indicate, membership would not be necessary. Supporting staff could still function without ISCA membership since they do not sign the final documents and would be under the supervision of a CPSS/C. Requiring membership without certification runs the risk of misinterpretation and increases the likelihood that someone not fully qualified would be doing soil science that is required by the permit process. That is why we are recommending the removal of ISCA membership as a qualified individual under the definition of Soil Classifier on page 24 of the General Permit.

EPA Response: EPA agrees with your comment pointing out the difference between certification and membership and we have modified the General Permit accordingly.

*In Part IV, EPA modified the definition of “Soil Classifier” to provide that full or associate members of ISCA will not be listed as Soil Classifiers.*

Comment: The draft General Permit only provides a link to one group of qualified professionals. Please provide a link to both groups Illinois Soil Classifiers Association (ISCA) and Soil Science Society of America (SSSA) or not to any.

EPA Response: EPA thanks the commenter for the comment. EPA added the link <https://portal.sciencesocieties.org/BuyersGuide/ProfessionalSearch.aspx?Token=> to the General Permit.

*EPA revised Section I.B.2.a. to include the web address listed in the response.*

### 3. Site Evaluation:

Comment: EPA should add private sewage disposal contractors licensed by the Illinois Department of Public Health (IDPH) to those individuals qualified to conduct site evaluations. The National Environmental Health Association's (NEHA) certification is not warranted and adds only more expense to already struggling small business owners. Allowing private sewage disposal contractors to conduct site evaluations (as well as perform other tasks related to the surface disposal systems) is also more convenient for homeowners.

EPA Response: The General Permit defines the following as Site Evaluators for the purpose of determining whether a subsurface discharging system can be installed on the site: Illinois Licensed Environmental Health Practitioners, Illinois Licensed Professional Engineers, and individuals holding either the basic or advanced Certified Installer of Onsite Wastewater Treatment Systems certification from the National Environmental Health Association (NEHA). While EPA acknowledges that Private Sewage Disposal Contractors licensed by IDPH possess “general knowledge of the design, installation, operation, maintenance, and servicing of on-site waste water disposal systems,” as cited in Chapter 111 of 225 ILCS, the evaluation of some sites where surface discharging systems might be installed will require a high level of specific knowledge of site assessment procedures (e.g., soil analysis, groundwater assessment), treatment technological options (e.g., fixed film treatment processes, suspended growth treatment, pressurized drip distribution), and system installation/fabrication procedures (e.g., related to system layout, pump applications, use of timers, etc.). Licensed Private Sewage Disposal Contractors who wish to evaluate sites under the General Permit can do so upon completion of the NEHA program cited below.

Instructions on obtaining the certified installer of onsite wastewater treatment systems (CIOWTS) credential can be found at the following address:  
[http://www.pearsonvue.com/neha/pdfs/CIOWTS\\_CIB.pdf](http://www.pearsonvue.com/neha/pdfs/CIOWTS_CIB.pdf).

For frequently asked questions about NEHA certification, visit the address  
<http://www.neha.org/pdf/cred/Onsite/FAQCandidates.pdf>.

Comment: An individual under the direct supervision of an Illinois Licensed Environmental Health Practitioner (LEHP) at a local health department should be included as acceptable Site Evaluator under the General Permit, as well. The LEHP could sign off on the site evaluation, but should not be expected to be at every site.

EPA Response: EPA agrees, and revised the General Permit to include individuals working under the direct supervision of an LEHP within the definition of Site Evaluator. However, EPA will require that the supervising LEHP sign the site evaluation.

*EPA revised the definition of “Site Evaluator” in Part IV of the General Permit so that it is consistent with the above response.*

Comment: EPA’s design flow requirement for homes uses a different gallon per bedroom per day sizing than those of our local ordinance or the State PSD code. NPDES systems will be a very small portion of the systems that we evaluate. This is a concern for local health

departments because IDPH conducts septic system program reviews and the results are tied to a significant amount of the grant dollars that the Department provides.

EPA Response: The General Permit is not meant to impact any state or local laws that do not directly conflict with it. However, under the CWA, Congress determined that persons were not to discharge pollutants into waters of the United States unless authorized by an NPDES permit, and selected EPA to administer the CWA. When confronted with the environmental problems of surface discharging systems in Illinois, EPA concluded that the provisions in the General Permit are the best way to carry out the CWA, even when they in some instances conflicted with the PSD Code (IDPH regulations).

The ability of the soil to infiltrate and further treat effluent is based on soil type, soil conditions, and the flow of effluent and level of treatment. As explained in the Fact Sheet, the approach in the General Permit expands the range of soil types to be considered for effluent infiltration based on the recognition that further treatment of septic tank effluent (i.e., through a variety of fixed film, suspended growth, or membrane filtration processes) can produce a higher quality effluent acceptable for infiltration in a greater variety of soils. In addition, EPA has adjusted the procedure for estimating wastewater flow downward for larger homes, to more accurately reflect actual wastewater generation rates, as detailed in the Fact Sheet. In the instances detailed in this paragraph, the General Permit does preempt the PSD code.

Both of these adjustments to the current IDPH approach for considering the viability of subsurface discharge at a particular site effectively expand the universe of sites where subsurface discharging systems can be installed. Where the cost of adding additional treatment processes between the septic tank and the soil infiltration area exceeds the limits in the cost calculator, the prospective permittee can opt out of the subsurface discharge approach and install a surface discharging system subject to coverage under the General Permit.

Coverage under the General Permit is not mandatory. However, to the extent that coverage is sought under the General Permit, and its standards conflict with the PSD Code, the General Permit's standards must be followed. A party wishing to obtain an individual permit may seek that permit from Illinois EPA. IDPH's per bedroom rules may be followed only to the extent that Illinois EPA finds them appropriate for an individual NPDES permit, or in the circumstance that the surface discharging system does not discharge pollutants to waters of the United States.

EPA is also aware that many Illinois county health departments have misinterpreted Section 7(c) of the Illinois Private Sewage Disposal (PSD) Licensing Act, 225 ILCS 225/7(c), thinking that this provision allows them to issue construction permits for surface discharging systems for six months after the effective date of the General Permit. Any current discharges of pollutants to waters of the United States without a permit and not within the scope of a CWA exemption is a violation of the CWA. Once EPA has issued the General Permit to regulate surface discharging systems, there is a clear way for Illinois homeowners needing individual septic systems to comply with the CWA. EPA communicated with one of the main sponsors of this PSD Licensing Act provision amendment in the Illinois General Assembly, and knows that he was supportive of Region 5's efforts to develop a General Permit. Thus, EPA does not believe that there will be an actual conflict between the General Permit and Section 7(c) of the PSD Licensing Act. If, once the General Permit is issued, local departments of health do not issue construction permits unless the potential permittee can demonstrate compliance with the General

Permit, they will still be giving effect to the PSD Licensing Act provision, because they will not be issuing permits six months after the General Permit is issued. Acting in accordance with a legal interpretation that does not create a conflict between federal and state provisions is preferable to actions that would create a conflict.

If there are those who insist that the effective date of the General Permit will conflict with Section 7(c) of the PSD Licensing Act, be advised that to the extent there is an actual conflict but only to the extent there is an actual conflict, EPA intends to preempt this State statutory provision. After the effective date of the General Permit, local departments of health should not issue construction permits, unless the potential permittee can demonstrate compliance with the General Permit, and the health department has not received notice that coverage has been denied.

Comment: Various commenters recommended that additional kinds of subsurface systems be added to the systems that are to be considered in the site evaluation process under Section I.B.3.b.: (a) drip irrigation systems; (b) Wisconsin mound systems; and (c) Illinois raised filter beds. Other commenters recommended that a hybrid (combination of technologies listed under Section I.B.3.b), or an individually engineered system be included; specifically one meeting the new NSF/ANSI Standard 350.

EPA Response: The system types listed in Section I.B.3.b.ii.A through L were not intended to be exhaustive, but rather to require evaluation of well known technologies. In recognition that there may be technologies or systems developed in the future, Section I.B.3 requires that the Site Evaluator determine if any alternative to a surface discharging system is technologically feasible. This language provides flexibility to the Site Evaluator to utilize either a combination of the listed technologies, or a technology that has not yet been developed. However, as the commenters point out, the list of systems at Section I.B.3.b.ii.A through L is not consistent with the aforementioned General Permit language. Therefore, EPA modified Section I.B.3.b.ii to include the additional systems pointed out by the commenters as well as to add language consistent with Section I.B.3 that requires the evaluation of any alternative to a surface discharging system that is technologically feasible. EPA also added a footnote to clarify how the Site Evaluator should evaluate the systems in this section. Note that although not explicitly listed in the General Permit, systems meeting the new NSF/ANSI Standard 350 may be evaluated as part of the technology feasibility analysis.

*EPA revised Section I.B.3.b.ii to include drip irrigation systems, Wisconsin mound systems, Illinois raised filter beds, and language requiring that any alternative to a surface discharging system be evaluated. EPA also included a footnote to clarify how the Site Evaluator should evaluate the systems in this Section.*

Comment: The draft General Permit is designed to reduce the number of new or reconstructed surface discharging wastewater treatment systems in Illinois. It provides greater flexibility for the use of conventional and advanced soil-discharging wastewater treatment systems (that would not be subject to regulation by EPA). EPA has done this by identifying shortcomings in Illinois' current PSD Code, and requiring applicants for General Permit coverage to consider sites and system technologies that EPA considers to be appropriately protective of water quality, but that would not be allowed under current Illinois regulations. By making it difficult or costly to obtain coverage under the General Permit for a surface discharging system, and by establishing that

individual NPDES permits are required for surface discharging systems proposed for newly created lots, EPA's policy may have the effect of skewing residential growth patterns toward areas that contain soils suitable for conventional septic systems under the current PSD Code. Some residential development may shift to such areas and away from areas where surface discharging systems have been more common. Areas of farmland and undeveloped woodlands with favorable soil conditions may face new growth pressures as developers shy away from two types of sites: those that need a surface discharging system and therefore require coverage under the General Permit or an individual NPDES permit; and those that would need a soil discharging system of a type or design that EPA considers feasible at the site in question, but that does not meet PSD Code standards and therefore would require discretionary relief from those standards. The draft General Permit could have the practical effect of making new development more difficult and costly.

In agreeing with the more detailed comment set forth above, other commenters stated that the expanded list of soil design groups set forth in the General Permit (versus the PSD Code) will result in increased pressure to develop productive cropland for homes. Another commenter urged EPA to give consideration to the diverse economic conditions and housing markets within the State of Illinois.

EPA Response: The ability of the soil to infiltrate and further treat effluent is based on soil type, soil conditions, and the flow of effluent and level of treatment. As explained in the Fact Sheet, the approach in the General Permit expands the range of soil types to be considered for effluent infiltration based on the recognition that further treatment of septic tank effluent (i.e., through a variety of fixed film, suspended growth, or membrane filtration processes) can produce a higher quality effluent acceptable for infiltration in a greater variety of soils. In addition, EPA has adjusted the procedure for estimating wastewater flow downward for larger homes, to more accurately reflect actual wastewater generation rates, as detailed in the Fact Sheet. Both of these adjustments to the current IDPH approach for considering the viability of subsurface discharge at a particular site effectively expand the universe of sites where subsurface discharging systems can be installed. Where the cost of adding additional treatment processes between the septic tank and the soil infiltration area exceeds the limits in the cost calculator, the prospective permittee can opt out of the subsurface discharge approach and install a surface discharging system subject to General Permit coverage. In the event that a site meets the EPA requirements for a subsurface discharging system but not the IDPH requirements (i.e., as stipulated in the existing Illinois Private Sewage Disposal Code), the applicant may request a variance from IDPH under 77 IAC 905.20(1) for installation of a subsurface discharging system, or request an individual permit from Illinois EPA.

In issuing the General Permit, EPA is not supporting – or opposing – any local land use decisions, zoning ordinances, or development policies. The intent of the General Permit is to provide legal permit coverage for wastewater treatment systems that discharge pollutants to waters of the United States, and ensure that the public health, environmental protection, and technological and economic feasibility criteria of the CWA are met with regards to approval of pollutant discharges under the NPDES permit program. The General Permit does not impact the zoning or other authorities of state or local units of government, and is not intended to promote or restrict any particular form of residential or commercial development.

Comment: The use of soil groups XI and XII will result in premature leach field failure.

EPA Response: Research conducted and reviewed by EPA over the past 40 years concludes that when properly planned, sited, designed, installed, operated, inspected, and maintained, subsurface discharging wastewater systems provide a high level of treatment that protect groundwater and surface water (see [www.epa.gov/owm/onsite](http://www.epa.gov/owm/onsite)). While septic tanks provide basic primary treatment of domestic wastewater (sewage), chemical, physical, and biological processes within the soil are responsible for most of the attenuation and removal of pollutants in subsurface discharging systems.

EPA recognizes that some soils provide better treatment than others. For example, discharges to coarse sandy soils result in rapid movement of septic tank effluent through the soil matrix, with little treatment, in many cases. Conversely, soils with very high clay content may retard infiltration to the point of effluent surfacing. EPA has restricted consideration of subsurface discharging systems to those soils that can provide appropriate treatment, as listed in the table in Section I.B.3.c of the General Permit. EPA acknowledges that in some cases (e.g., clayey soils), septic tank effluent may require additional treatment prior to soil infiltration to prevent premature clogging of the interstitial spaces between soil particles. The necessity to provide further treatment to septic tank effluent in these cases is not unusual, and is accommodated throughout the nation where high clay content soils exist, including Illinois.

Subsurface discharging system designs which appropriately consider wastewater flow, strength, and site/soil conditions (e.g., soil type and characteristics, restrictive horizons, and groundwater, slopes), are fully capable of protecting groundwater and keeping effluent below the surface. Where the cost of providing additional treatment to septic tank effluent results in system costs that exceed the limit of the General Permit cost calculator, the applicant is automatically qualified to seek NPDES permit coverage by submitting a Notice of Intent (NOI) to be covered under the General Permit for a surface discharging treatment system.

Comment: In Appendix V, the footnotes for the alternative soil groups table are missing.

EPA Response: EPA added the footnotes to the table in Appendix V.

*EPA revised Appendix V to include the appropriate footnotes that are missing from the soil groups.*

#### 4. Economic Feasibility

Comment: EPA should adopt an economic feasibility test for businesses, especially for small businesses which are already struggling in rural America in this economy. These small businesses are important for the tax base of small towns. A few commenters were also concerned about whether organizations like schools and churches would be eligible under the economic feasibility criterion of the General Permit.

EPA Response: EPA has considered the possibility of allowing business-owned dischargers to conduct the economic feasibility analysis but has decided not to allow business-owned dischargers to do so. Our decision is based on the fact that the number of residential onsite

systems installed annually far exceed those of non-residential or non-business-owned systems. Based on the small universe of non-residential system installations relative to residential installations, EPA did not think it was beneficial to develop a separate economic analysis for non-residential discharges for use in a general permit context. Another challenge is the lack of an analogous affordability measure. The economic feasibility analysis for residential installations is capable of assessing affordability based on adjusted gross income. However, an analogous measure to assess affordability for businesses is not available, especially given the variety of ways in which small businesses can be organized, i.e., sole proprietorships, general partnerships, limited partnerships, limited liability corporation (LLCs), or “S” or “C” corporations.

Further discussion with some local county health departments also revealed that some of the businesses in question would not be eligible for coverage under the General Permit. For instance, auto repair shops would not meet the eligibility requirement that the system receive and process domestic sewage only. Other examples identified were schools and churches, and it is unlikely that these would qualify for coverage because they would likely exceed the General Permit’s release rate limit of 1500 gallons per day.

The procedure for establishing eligibility for a non-residential (business or government-owned discharge) will remain the same as that presented in the draft General Permit. A non-residential applicant will first conduct a technical feasibility analysis to determine whether the applicant’s site can support a zero discharge system. This analysis will yield one of two possible outcomes: Either the applicant will demonstrate that the site can or cannot support a zero discharge system. If a zero discharge system is not technically achievable, the applicant may install a surface discharging system. Alternatively, if it is demonstrated that the site can support a zero discharge system, then the applicant can do one of two things. The applicant can install the zero discharge system, or he or she can apply for an individual permit through the Illinois EPA to install a surface discharging system. Regarding this last point, EPA would like to point out that the proposed draft permit is a General Permit, and it is not intended to be appropriate for every situation. In this respect, EPA acknowledges that there are situations that may arise in which a non-residential applicant may need to install a surface discharging system on the basis of economics, even though the technical feasibility analysis showed that the site could support a zero discharge system. However, EPA thinks that situations such as these are unique due to site-specific constructability issues, or enterprise-specific issues, and would not occur frequently. In unique situations such as these, EPA believes that applying for an individual permit from Illinois EPA is an appropriate solution.

Comment: The Fact Sheet appears to indicate that businesses or governments that will discharge from a new or replaced surface discharging system should apply to the IEPA for an individual NPDES permit. The General Permit just indicates that businesses or government owned or operated discharges cannot use the economic feasibility test. Can businesses or government owned or operated discharges still apply to be covered under the General Permit or not?

EPA Response: This was a mistake in the Fact Sheet. Businesses and government are eligible for coverage under the General Permit. They can still apply for General Permit coverage but, as indicated in the draft General Permit, they are precluded from receiving coverage on the basis of economics.

Comment: The analysis should focus on the incremental cost advantage of a surface-discharging system compared with a soil discharging system. The approach taken by the draft General Permit does not do that, and could result in a determination that a soil discharging system at a particular property is infeasible even if a surface discharging system would cost only a very small amount less (or possibly be even more costly over the long term when the additional inspection and maintenance requirements are taken into account). A more equitable and logical approach would be to compare the incremental cost of a soil discharging system as compared to a surface discharging system. Property owners could be eligible for the General Permit when the annualized costs of a soil discharging system exceed those of a surface discharging system by a certain amount or percentage.

EPA Response: The economic feasibility analysis for homeowners was developed in accordance with Section 301(b)(2)(A) of the CWA, which requires the elimination of the discharge of all pollutants if that discharge is both technically and economically achievable. Zero discharge systems would result in the elimination of the discharge of pollutants. This is why the zero discharge system was evaluated on the basis of technology, and the economic analysis is consistent with the CWA. This language prohibits the discharge of pollutants except in accordance with the statute. Therefore, in developing the economic analysis, EPA is requiring the evaluation of the zero discharge system instead of the surface discharging system because the discharge of pollutants is only permissible if it is demonstrated that a zero discharge system is not feasible due to technology or economics.

EPA would like to point out that in order for a homeowner to be able to determine eligibility on the basis of economic feasibility, the homeowner will have demonstrated through the technical feasibility analysis that the homeowner's site can support a zero discharge system. At this point, EPA believes that, given the decision to install the zero discharge system or to go through the economic feasibility analysis in order to try and establish eligibility for General Permit coverage to install a surface discharging system, most people will choose to install the zero discharge system and avoid the additional responsibility associated with the General Permit. For this reason, we only expect that the coverage granted to homeowners on the basis of economics will be due to affordability in those instances when the cost of the least expensive zero discharge system that the site can support greatly exceeds that of the surface discharging system. While we agree that there is merit in your suggestion to compare the incremental cost of a zero discharge system to that of the surface discharging system, EPA thinks that the additional responsibility that the General Permit requires will provide incentive to discourage the installation of surface discharging systems on the basis of economics.

Comment: The use of adjusted gross income provides an incomplete and inadequate view of a household's ability to pay for a particular disposal system, since it does not take household debt or expenses into account. Additionally, the use of a potential permittee's annual household income is a poor basis for analysis since it is subject to significant variations from year to year.

EPA Response: EPA agrees with the commenter that the use of adjusted gross income to determine affordability on a household basis does not depict all of the financial elements that could be factored into a decision. However, homeowners need to have some means of sewage disposal and in areas where sewer connections are unavailable, individual septic systems

provide an appropriate means of disposal comparable to the cost of monthly sewer fees. EPA believes that considering 3-years of adjusted gross income takes into account year-to-year variation and is in general sufficient to evaluate eligibility based on economic infeasibility.

Comment: Average annual household income is a meaningless concept in circumstances in which a developer is building a house and installing the septic systems for spec houses.

EPA Response: Regarding what the commenter describes as a “spec” house (house that a developer has built but does not yet have a buyer), EPA would like to point out that this issue will become moot at some point in the near future. This is due to the limitation on coverage in the General Permit that precludes anyone from seeking coverage under the General Permit to install a surface discharging system on any lot that is created six months after the effective date of the permit.

However, EPA recognizes that instances may arise to the extent that there are undeveloped lots that have already been created. In these instances, there are two possible scenarios that could play out, depending upon whether the developer installs the septic system prior to selling the house, or the homeowner has a system installed after having purchased the house. Furthermore, this becomes relevant in the context of the General Permit only if a surface discharging system is being contemplated. In either scenario, the General Permit mechanics to determine eligibility are the same except for the fact that developers are precluded from the economic analysis.

However, EPA respectfully disagrees with the commenter’s point that precluding developers or small businesses from seeking coverage under the General Permit on the basis of economics puts them at an unfair advantage by requiring them to pursue an individual permit when the homeowner could qualify for the General Permit. Before a homeowner can qualify for General Permit coverage on the basis of economics, the homeowner must first demonstrate that the homeowner’s site can support a zero discharge system. Of course, if a developer developed the site, s/he would have to make the same demonstration, with the result being that the site could support a zero discharge system. Furthermore, the likelihood of a homeowner receiving coverage under the General Permit on the basis of economics in this situation would be limited, since someone who can afford a new house would most likely not qualify on the basis of economics.

However, there are situations in which an individual homeowner could qualify, while a business would not: an individual who brings a new or previously owned mobile home onto a previously subdivided but unsewered single plat of land might very well qualify on the basis of economics, while a developer who develops a new mobile home park could rely only upon the technical feasibility criterion. This provision prohibiting business use of the economic feasibility criterion in the General Permit is logical, because of the Agency’s policy preference, embodied in the CWA, to encourage centralized wastewater planning. Similarly, while an individual homeowner moving into a new, less expensive home might qualify for a surface discharging system while a developer could not, again, this result is justified by EPA’s goal of reducing surface discharging systems where economically feasible. A developer able to obtain up-front construction financing for a housing development should be able to build the cost of a cluster system into the

construction loan, since such a system is likely to be similar in cost to the total cost of an individual surface discharging system for each residence.

Comment: Within a neighborhood of lots that are comparable in size and soil characteristics, it makes little sense from an environmental policy or equity standpoint to allow some of the lots to be served by surface discharging systems while others must have subsurface discharging systems.

EPA Response: Keep in mind that the General Permit is only designed for new and replacement surface discharging systems. Thus, for a newly developed neighborhood, EPA would anticipate that the type of system used by the vast majority of homes in the neighborhood would depend upon the type of system that the soils in the neighborhood would support and the technical feasibility analysis, as most homeowners able to afford a new home would not qualify on the basis of economic infeasibility, except in neighborhoods of less expensive homes perhaps marketed to first-time home buyers, or to less affluent buyers.

Discussing first a neighborhood of medium-priced to more expensive homes, EPA would expect that, in that neighborhood, whether or not surface discharging systems would be installed would be based upon the technical feasibility of the soils in the development. Here, there would probably be uniform development, to the extent that the soil conditions in the development were more or less uniform. For purposes of this discussion, assume that subsurface systems are installed in this first development. If market conditions in that neighborhood were to change in subsequent years, and the more affluent homeowners who bought the homes when they were new moved out and less affluent homeowners moved in, the homes would already be equipped with subsurface systems. Most subsurface systems would not need to be replaced due to mechanical problems within the first five years, the initial term of the General Permit. Since it is not possible for EPA to forecast what the regulatory climate will be over the average lifetime of a subsurface system, nor estimate the future relative costs of subsurface vs. surface discharging systems, EPA cannot conjecture about the type of economic feasibility test, if any, that might be used in any general permit that might be issued in subsequent permit proceedings.

A new neighborhood of less expensive homes, where the soils would also support subsurface systems, if some of the owners are going to qualify on the basis of economic infeasibility, most of the homes are also probably going to end up with surface discharging systems, since homes are usually marketed to a specific segment of the market. The exception where there could be a “patchwork quilt” of some homeowners qualifying for surface discharging systems on the basis of economics, while their neighbors would not, would be a new neighborhood marketed right at the cusp of the economic feasibility criterion.

Comment: If economic feasibility is going to remain part of the permit, it should be more clearly explained. In addition, EPA should require proof of the economic feasibility criterion.

EPA Response: Regarding the comment that the economic feasibility criterion needs to be more clearly explained, EPA believes that the permit language at Section I.B.4 adequately explains the criterion and how it is determined. Additional information is included in Appendix I-Economic Feasibility Calculator, and Section 8.4 of the Fact Sheet.

EPA thinks that it would be invasive to require permit applicants to submit income information. However, a permittee is required to retain all of the documents used to support the Notice of Intent (NOI) for three years after the application. If EPA inspects any particular surface discharging system and questions whether the permittee was eligible for coverage under the General Permit, EPA may require a copy of the documents supporting the economic feasibility criterion.

Additionally, the NOI includes the following certification that the applicant must sign which EPA considers sufficient to ensure that the information used to establish eligibility is truthful and accurate:

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 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.

### **C. Limitations on Coverage**

Comment: The McHenry County Public Health Ordinance does not allow for installation of any surface discharging private sewage disposal systems. All of the onsite wastewater treatment systems utilized in McHenry County are designed with soil based treatment of effluent. The Department requests that the following statement or similar language be added to Part I C: Limitations on Coverage: NPDES General Permit ILG62 does not supersede the requirements of a local jurisdiction which further restricts or prohibits installation of new or replacement surface discharging wastewater treatment systems.

EPA Response: EPA's regulations at 40 C.F.R. § 122.5(c) discuss the effect of a permit:

The issuance of a permit does not authorize any injury to persons or property or invasion to persons or property or invasion of other private rights, **or any infringement of State or local law or regulations.**

(Emphasis supplied). Therefore, once the General Permit has been issued, a potential permittee may not obtain coverage by filing a Notice of Intent under the General Permit if doing so would cause the permittee to violate a State or local law.

Thus, the development and implementation of the General Permit by EPA does not restrict, define, or limit the ability of local governments to develop, adopt, and enforce any ordinances, regulations, or other rules that are more stringent than the PSD Code or the provisions of the General Permit.

*EPA created Part III. E of the General Permit, "Effect of Permit," by inserting into this Part the text of 40 C.F.R. §122.5, which will make it clear that the General Permit does not preclude any local health department from being able to impose more prohibitive restrictions on surface discharging systems than those set forth in the General Permit.*

1. a. Lots Legally Recorded Six Months After the Effective Date of the General Permit

Comment: Several commenters stated that the restriction on discharges from lots legally recorded six months or more after the effective date of the permit would prevent transfers of already-platted small lots of property. These commenters suggested that the language of this restriction to coverage be changed to reflect the true intent of the restriction, which is to have developers plan for waste water treatment (decentralized facilities) when subdividing large tracts of lands. One commenter alleged that this restriction amounted to a taking of private property.

EPA Response: EPA agrees that the language in the draft permit was not as clear as it could have been and revised this language to better reflect the original intent. This limitation on coverage is included in the permit to promote wastewater planning prior to development and is only intended to affect purchased land that has not yet been sub-divided.

*The revised permit language at Section I.C.1.a is as follows:* The following discharges from Surface Discharging Systems are not eligible for coverage under this general permit:

Discharges from New Surface Discharging Systems located in lots (1) newly created or (2) if the land is subject to the Illinois Plat Act, 765 ILCS 205/0.01 et seq., platted and approved by the entity of the local unit of government that has the authority to approve subdivisions of land under Section 2 of the Plat Act, 765 ILCS 205/2, 6-months or more after the effective date of the permit,

EPA supports wastewater treatment system planning for new development, to ensure treatment effectiveness and cost efficiency. For new developments, recent research indicates that clustered wastewater treatment provides the highest level of wastewater treatment for the lowest capital and operation/maintenance cost to the homeowner. Installation of individual surface discharging wastewater treatment systems on multiple single family home lots in new developments incurs higher capital and operation/maintenance costs for system owners than service by clustered or distributed wastewater treatment systems.

The revised permit language was adopted for the following reasons. First, affected individuals such as developers, municipal and county planners and members of local building departments, and staff of local health departments should understand the reference to the subdivision approval by a local unit of government under the Illinois Plat Act. Second, since approval of a plan of development by a local unit of government is usually completed through the public meeting of some type of governing board, there will be a "bright line" date that will determine whether or not a particular development is within the six-month deadline after the effective date of the General Permit.

The reference to “newly created” lots is designed so that the General Permit’s limitation on coverage will eliminate some of the exceptions set forth in Section 1(b) of the Plat Act. EPA wants to ensure that the following situations, exempted by the Plat Act, would be within the Limitations on Coverage provisions of the General Permit. This means that property owners in these newly created lots would not be able to qualify under the General Permit and would need to utilize subsurface septic systems or cluster systems or apply for an individual permit:

1. “The division or subdivision of land into parcels or tracts of 5 acres or more in size which does not involve any new streets or easements of access.” (Section 1.b.1.)
2. The division or subdivision of lots or blocks of less than 1 acre in any recorded subdivision which does not involve any new streets or easements or access. (Section 1.b.2.)
3. The sale or exchange of parcels of land between owners of adjoining and contiguous land (Section 1.b.3.)

Illinois Plat Act, Sections 1(b)1-3.

EPA is aware that there are many undeveloped platted lots in the State that were left from the 2007-2008 period, when the recession in the new home construction industry began. To the extent that these developments have already been approved by the local unit of government in which they are located, the properties may be serviced by surface discharging systems, as long as the other requirements of the General Permit are met. However, the Limitations of Coverage provision will begin to apply to land where the plat of development has not been approved within 6 months from the General Permit’s effective date. Note also that the language “newly created” is not intended to encompass the situation where two property owners, with existing homes, shift their lot lines, so that one of the property owners may expand his or her home. If one or both of these homes is serviced by a surface discharging system, the shifting of the property lines will not cause EPA to consider these lots to be “newly created,” leading to the inability of these property owners to be covered by the General Permit. (Note, however, that should one or both of the septic systems fail at some point in the future, the replacement system would have to be evaluated under the General Permit’s terms.)

The General Permit is intended for locations where individual surface discharging systems are necessary due to unavoidable site restrictions (e.g., prior platted small lots, high groundwater, and restrictive soils) and other factors. In reviewing a possible “regulatory” takings, the courts generally apply a balancing test. They examine the character of the government action and its effect on the property’s economic value. Under the balancing test, government action taken for the purpose of protecting public health and safety, including many types of actions for environmental protection, generally will not constitute takings. The courts also look to the extent to which the government action interferes with the reasonable investment-backed expectations of the property owner. The limitation on coverage under the General Permit on lots legally platted six months after the effective date of the General Permit would not be considered to be a regulatory taking of private property because the restriction which disallow coverage under the General Permit is for the protection of public health, safety, and the environment and the lots

would still have economic value. Persons whose lots do not qualify for General Permit coverage would still have the ability to have septic systems coverage; they would just have their lots serviced by a subsurface discharging system or some type of centralized wastewater planning, such as a cluster system. The property owner could also seek coverage under an individual NPDES permit issued by the State.

Sections 1.b. to 1.f.

There were no comments on these Sections of the General Permit.

1. g. Discharges From New Or Replacement Surface Discharging Systems When A Residential Or Non-Residential Property Is Within 200 Feet Of A Sanitary Sewer.<sup>1</sup>

Comment: There have been situations where it has cost \$40,000 to connect to a sanitary sewer; in situations like these, EPA should provide for an economic exemption under the economic feasibility criterion.

EPA Response: In determining whether or not a site is eligible for coverage under the General Permit's provisions regarding the availability of sanitary sewer service, EPA expects permittees to be guided by Section 905.20(e) of the current Illinois PSD Code, which stipulates that new or renovated private sewage disposal systems shall not be approved where a sanitary sewer operated and maintained under permit of the Illinois Environmental Protection Agency is available for connection. According to the Code, a sanitary sewer is available for connection when it is within 300 feet of a residential property or a non-residential property with a sewage flow less than 1500 gallons per day, or within 1000 feet of a non-residential property with a sewage flow greater than or equal to 1500 gallons per day unless a physical barrier or local ordinance exists which prevents connection to the sewer. If connection from the property to the sanitary sewer cannot be made with an individual line (i.e., 4" line), then a private sewage system may be installed.

According to your comment, you indicate that there have been situations in the past that would have required a sewer connection fee of \$40,000 dollars and request that an economic exemption be provided for situations such as these. The General Permit is not intended to be applicable in all situations, including situations similar to those described in your comment. We would expect situations like those to be rare, almost exceptional cases. Individuals faced with very costly sanitary sewer connection fees would be able to apply for an individual permit from the Illinois EPA.

Comment: Others commenters had several questions regarding the limitations on the ability to obtain a private sewage disposal permit if the "discharge is within 200 feet of a sanitary sewer" would apply. These commenters first wanted to know whether the "200 feet" represents the

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<sup>1</sup> The draft General Permit, consistent with the then-current version of Section 905.20(e) of the PSD Code, prohibited the installation of a surface discharging system if a site was within 200 feet of a sanitary sewer system. Compatible with recent revisions to this provision of the PSD Code, the final General Permit now prohibits installation of a surface discharging system if the site is within 300 feet of a sanitary sewer.

distance to the property line or the sanitary sewer structure. Additionally, according to the commenters, the State of Illinois now allows private sewage disposal systems installed within this 200 feet of a sanitary sewer if there is a geographical or political impediment to the installation (i.e. railroad tracks or sloping conditions that would require the installation of a lift station). The commenters wanted to know, in this particular instance, does the General Permit intend to adopt State of Illinois policies or override them?

EPA Response: Illinois DPH is charged with implementation of 77 IAC 905.20(e) and EPA will defer to the Illinois DPH and its county partners to make determinations relevant to application of this language. Persons whose property is within 300 feet of a sanitary sewer who nonetheless believe that there are physical barriers or local ordinances which would prevent their connection to that sewer should consult their Illinois DPH or local county health department prior to submitting an NOI to be covered under the General Permit. If the Illinois DPH or local county health department determines that their property cannot be served by a sanitary sewer in accordance with the exception in 77 IAC 905.20(e), those persons should submit a letter from the health department along with the NOI.

*EPA revised Section I.B.1, and Section I.C.1.g to include a reference indicating that the Illinois Department of Public Health or local county health department will evaluate the eligibility requirements regarding proximity to an available sewer connection.*

*EPA revised Section III of the NOI to be consistent with the response that EPA will defer to the Illinois Department of Public Health or local county health departments to make determinations whether sanitary sewer connections are available.*

Comment: We believe that the EPA needs to revise the limitation on coverage for discharges within 200 feet of a sanitary sewer to account for situations in which a property is located within 200 feet of the sanitary sewer, but a sewer connection is not available because the property is located outside of the municipality owning the sanitary sewer, which permits connection only to residents of that municipality, the sanitary sewer has capacity limitations, or any other issue that is not within the control of the property owner.

EPA Response: As indicated in the response to the prior comment, EPA will defer to the Illinois DPH or local county health department to make determinations regarding implementation of Section 905.20(e) of the current Illinois Private Sewage Disposal Code.

#### **D. Authorization**

Comment: For existing homeowners, the thirty days during which they are waiting for approval of their Notice of Intent (NOI) may be an undue burden because they will have to pump their tank or system every few days until they receive a coverage letter from the EPA. What is the estimated time the coverage letter would be delivered to the owner after the 30 days? Section 7(c) of the Illinois Private Sewage Disposal Licensing Act, 225 ILCS 225/7(c), prohibits the construction or installation of a surface discharging system unless the owner has obtained NPDES permit coverage. A local health department or IDPH would be remiss and open to liability if a permit to construct was issued without a copy of that person's NPDES coverage

letter. Due to the urgency felt by many homeowners, local health department representatives will be confronted by the general public for answers as to when they can expect to see a response from the EPA. Who will be the contact at the EPA for the homeowner to be referred as to the status of their NOI submission? Whom would the homeowner call to report?

EPA Response: As stated in the General Permit, Section I. D.3, unless notified by the EPA to the contrary, persons who submit an NOI in accordance with the requirements of the General Permit are authorized to discharge under the terms and conditions of the permit thirty calendar days after the date the NOI is received by the EPA. Section II B.2 clarifies that no discharges are to occur during this thirty-day period. For permit purposes, submission of a completed NOI constitutes coverage under the General Permit thirty days after the NOI is received by EPA, as long as the permittee complies with the terms and conditions of the General Permit.

EPA does not believe that a coverage letter is necessary, and will retain the procedure from the draft General Permit for those applicants granted coverage in response to their submitted NOIs. However, in order to address the expressed concerns of potential permittees and local health departments, in the event that an applicant is denied coverage, the EPA will notify the local county health department in addition to the applicant to inform them that coverage under the General Permit has been denied. EPA will strive to mail this notice both to the applicant and to the local county health department within twenty-five days of its receipt of the NOI, so that both parties should have EPA's denial of General Permit coverage within the thirty-day period. EPA thinks that this approach will alleviate the concerns of county health departments about issuing a construction permit for any unauthorized surface discharging systems.

EPA would also like to point out that if a surface discharging system is necessary, it will result in additional pollutant loading to the environment. If pollutants will be discharged to the environment, then the EPA needs to evaluate the proposed discharge to determine eligibility pursuant to the CWA. The terms and conditions of the General Permit provide assurance that when discharges to waters of the United States occur, they will be protective of human health and the environment. For these reasons, EPA thinks that a review period of up to thirty days is necessary.

The best way for people to avoid emergency situations is to have an ongoing maintenance program. Then, emergency situations will be minimized. We recognize that there may be emergency situations, but do not think that the limited number of emergency situations warrant an expedited review process. Furthermore, if a permittee is faced with a failing surface discharging system, there are options available that can be used as temporary interim measures prior to receiving coverage under the General Permit. These include, but are not limited to, having the system pumped, or a portable toilet.

Emergencies and other sudden threats to public health, such as: oil and/or chemical spills, radiation emergencies, and biological discharges can be reported by dialing the National Response Center at 1-800-424-8802

Complaints or potential violations may be reported by submitting the information about the suspected violation at the following web address <http://www.epa.gov/tips/> or by phoning the

EPA Region 5 Regional Office at 1-800-621-8431 or 312-353-3000 8:30 a.m. -4:30 p.m., weekdays.

*EPA revised Section I.D.5 and Section II.B.2. to reflect changes regarding notification procedures when coverage is denied.*

Comment: Provide a document to the homeowner that indicates they have either been approved for coverage under the permit or denied coverage.

EPA Response: See response to previous comment.

Comment: For helping owners/operators through the NOI submittal process and possibly through operational issues, it would be a good idea to establish a website and hotline for operators /owners and contractors to be able to access when they have questions and concerns.

EPA Response: Upon implementation of the General Permit, EPA will evaluate the utility of establishing a website to address various aspects of the General Permit, based on the number and types of inquiries received. EPA thinks that this approach will assist EPA in identifying the particular concerns of potential permittees, local health departments, and other members of the public that may require EPA to develop guidance and address issues that are raised. If there are any questions regarding the General Permit, please contact Mark Ackerman. Mr. Ackerman may be reached at (312) 353-4145 or ackerman.mark@epa.gov.

Comment: There should be simplified procedural requirements for septic systems that are changing ownership. For those systems that have already been permitted, the procedure should be a simplified notification of the transfer of ownership.

EPA Response: We acknowledge that the draft permit does not contain procedural requirements detailing the requirements a permittee must perform when a transfer of ownership occurs. The permit has been revised to include a procedure to clarify what steps must be taken and by whom when a transfer of ownership occurs. In these instances, a permittee covered under the General Permit must first submit a Notice of Termination, thus relieving the permittee of any obligation under the General Permit. The new owner would then need to submit a Notice of Intent (NOI) to be covered under the General Permit prior to commencing discharge.

We would like to point out that the NOI filed by the new owner will be a simplified version of the NOI required for initial coverage. Therefore, to facilitate this procedure, a Simplified NOI has been created that will not require the new owner to perform the required soil and economic analyses and site evaluation necessary for establishing initial coverage under the General Permit.

*EPA revised Part II of the General Permit to include additional procedural requirements consistent with the response above regarding transfer of ownership.*

*EPA added Appendix VI, a Simplified NOI, to the final General Permit, to be used for situations involving a transfer of ownership, and to renew coverage when the first-round General Permit expires.*

## II. PART II: NOTICE OF INTENT REQUIREMENTS

### A. General

There were no comments pertinent to this Part.

### B. Deadlines for Notification

Comment: The commenter is concerned about the processing and evaluation of the NOI submittals and the semi-annual Discharge Monitoring Reports. There is a substantial amount of information requested in these forms and it is likely that there will be an increased administrative burden put on the Agency. Since coverage under the draft General Permit is subject to being rejected or rescinded by EPA, we believe that the Agency must provide assurance that it will have sufficient staff and other resources to make a timely review of the NOI so that prospective permittees are not subject to a long period of uncertainty about whether they qualify under the General Permit or will need to seek individual permitting

EPA Response: The decision process regarding whether or not a potential permittee qualifies for coverage under the General Permit is not open ended. Unless notified to the contrary, persons who submit an NOI in accordance with the General Permit are authorized to discharge thirty days after the NOI is received by EPA. EPA expects to make decisions regarding denial of permit coverage within thirty days from the date of receipt of the Notice of Intent, and will strive to send any negative decision within that thirty-day time period.

Comment: Ohio EPA has been able to turn its permit approval requirements around within 7-10 days. This provides a level of certainty that the homeowner is not going to get stuck with a system that is forever failing the monitoring requirements and stuck retesting continuously. The commenter urged U.S. EPA to find out how Ohio was able to turn permits around so quickly, and adopt its methods to the proposed General Permit.

EPA Response: The Ohio EPA permit is administered primarily by the county health departments. This arrangement provides for review and approval of notices of intent to occur in a shorter amount of time than the thirty days in EPA's General Permit.

EPA would also like to point out that if a surface discharging system is necessary, it will result in additional pollutant loading to the environment. If pollutants will be discharged to the waters of the U.S., then the EPA needs to evaluate the proposed discharge to determine eligibility pursuant to the CWA. The terms and conditions of the General Permit provide assurance that when discharges to waters of the United States occur, they will be protective of human health and the environment. For these reasons EPA thinks that a review period of up to thirty days is necessary.

### C. Failure to Notify

The only comments pertinent to this Section were with regard to the definition of the waters of the United States, which were already addressed in this Response to Comments in Part I.A.

#### **D. Contents of Notice of Intent**

There were no comments pertinent to this Part.

#### **E. Where to Submit**

There were no comments pertinent to this Part.

#### **F. Signatory Requirements**

Comment: What will happen if a local health department inspects a system for which an NPDES Permit has been issued where it should not have been? Who will conduct enforcement?

EPA Response: EPA expects that the times that a local health department might identify NPDES permit coverage that should not have been granted will be limited to those rare instances where the persons applying for coverage under the General Permit had submitted a fraudulent NOI that is not representative of the actual situation. With regard to enforcement, only EPA is authorized to enforce the CWA except where EPA has specifically delegated its authority. EPA has delegated Illinois EPA to also enforce the CWA within Illinois, but EPA is taking the lead on the General Permit. Additionally, we would like to point out that issuance of the General Permit does not preclude the authority of local health departments to enforce their own ordinances.

Comment: If the owner of the property will not be operating the business, the NOI must also be signed by a responsible individual representing the Operator. I would think this may be the case in multi-tenant buildings where the owner of the property is not on site. What happens if tenants change? Tenants in these multi-tenant industrial parks change a lot. If the responsible individual who also signed the NOI leaves, does a NOT need to be completed and a new NOI submitted? There is no change in ownership but just a change in the responsible person. My comment is to explain in more detail who is the "responsible" individual or who should be the "responsible" individual in a scenario noted above.

EPA Response: We assume that in this type of scenario, the owner would probably have a long-term employee or some type of management agent who would sign the NOI. Since discharges from more than one home or other structure is prohibited under Section I.C.1.f., Limitations on Coverage, there would have to be a separate surface discharging system for each structure. If there are several tenants in several structures, a cluster system might be a more cost-effective wastewater solution for this industrial park. In any event, if there are separate systems and if a tenant does change, a new NOI would have to be filed. If the owner is an absentee landlord, and a management agent operates the industrial park, then the management agent should sign as the operator. Because of the active maintenance required with surface discharging systems, EPA wants a local operator to serve as the responsible party.

#### **G. Additional Notification**

There were no comments associated with this Part.

## **H. Continuation of this Permit**

Comment: The language in Section II.H.1 appears to contradict that of Section II.D.2. Section II.H.1. states that if the permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 40 C.F.R. § 122.6 and remain in force. However, Section II.D.2. states that the permittee must reapply for and obtain a new general permit after the expiration date. The General Permit needs to be clear and consistent on what needs to be done upon or prior to the expiration of the permit.

EPA Response: The permit will be administratively continued until a new general permit is made available, or EPA makes a decision not to make a new general permit available and provides time for covered dischargers to seek coverage under an alternative general permit or an individual permit, as stated in Section II.H.1.d. If EPA issues a new general permit, the owner/operator will have to reapply. EPA would like to point out that the Agency expects the follow-on permit to keep the same basic framework as this initial General Permit; thus, individuals reapplying for the purposes of continuing coverage only need to submit the simple NOI that will be created as stated above, and the process should not require anyone already covered under the General Permit to re-establish eligibility under either the technical or economic feasibility criterion. EPA will make further instructions available at the time of the follow-on permit.

## **I. Notice of Termination**

Comment: A property owner who sells his or her property that was allowed coverage under an economic feasibility exception may file a "Notice of Termination" (NOT) that coverage is no longer needed. The prospective buyer of the property must submit a NOI for coverage and wait 30 days before using the system. Does the buyer of the house have to go through the same process as the seller went through (i.e. demonstrate no subsurface system is viable or an economic exemption)? In this described scenario, the seller had an economic feasibility exception, if the buyer would not qualify for an economic feasibility exception, would they be required to install a subsurface system? If that is the case, that would most likely stop the transaction. This would also greatly reduce the property value for the seller and limit selling of the property only to others who would qualify for the Economic Feasibility exception.

EPA Response: EPA acknowledges that the draft General Permit does not set forth a procedure detailing the requirements a permittee must perform upon a transfer of ownership. The General Permit will be revised to include a procedure to clarify what steps must be taken and by whom, when a transfer of ownership occurs. In these instances, a permittee covered under the General Permit must first submit a Notice of Termination, thus relieving that person of any obligation under the General Permit. The new owner would then need to submit a Notice of Intent to be covered under the General Permit prior to commencing discharge. As stated above in these comments, EPA created a Simplified NOI that will not require the new owner to perform the required technical and/or economic feasibility analyses and site evaluation necessary for establishing initial coverage under the General Permit.

Comment: When a property transfers and the new owner has a larger income that might make the existing economic feasibility inappropriate, will the new owner have to install a new system on the property?

EPA Response: No. EPA created a simplified Notice of Intent that will not require the new owner to perform the required analyses necessary for establishing initial coverage under the General Permit.

*EPA revised Part II of the General Permit to be consistent with the responses above, in order to accommodate a transfer of ownership.*

*EPA added Appendix VI, a Simplified NOI, to the final General Permit, to be used for situations involving a transfer of ownership, and to renew coverage when the first-round General Permit expires.*

Comment: How will a new owner of a surface discharging system covered under the General Permit be made aware of the fact that he is required to submit a new NOI? My comment is to require that a special condition or note be recorded on the deed of all properties approved under this General NPDES Permit to ensure that future owners of the property are aware of the permit and the permit conditions.

EPA Response: System ownership changes require that the existing permittee file a Notice of Termination (NOT) when the permittee intends to cease discharges from the permitted treatment system – i.e., when they sell the home, or otherwise are no longer responsible for permit compliance and their discharges have ceased (e.g., foreclosure). The original owner sends the NOT to EPA and to the local health department.

Afterwards, the new system owner or permittee must file a Notice of Intent (NOI) for coverage under the General Permit in order to re-start discharges from the treatment system. EPA has decided, in order to facilitate new owners' knowledge about their obligations to obtain coverage under the General Permit, that once EPA receives an NOT, the Agency will send a letter to the address referenced in that NOT, addressed to "New Owner." The letter will provide information to a potential new owner of that person's obligations under the General Permit. EPA thinks that there are enough requirements in the General Permit and that requiring a deed notice or condition would add too many prerequisites to the General Permit. If a local health department becomes aware that an original owner/operator permittee is no longer resident at an address, EPA would appreciate receiving notice of this information, particularly if there is a New Owner that needs to be advised to submit a Simplified NOI.

### **III. SYSTEM MANAGEMENT, EFFLUENT LIMITATIONS, AND INSPECTIONS**

#### **A. Management Requirements**

Comment: Members of our county board and local mayors fear programs such as these will accentuate the decline of small villages and towns — the expense of these systems will kill development or any redevelopment. While EPA proclaims that there is no cost for this permit, rest assured, the homeowners will pay something for maintenance, inspection and testing. Some counties may have to charge extra for the actual private sewage disposal permit that is also

required to deal with the extra work. I estimate the indirect costs of testing and maintenance will run at least \$500 annually, maybe double that if any samples return with negative results.

EPA Response: EPA recognizes that while there is no fee to apply for, or receive coverage under the General Permit, there are costs associated with complying with the General Permit. These costs namely stem from requirements in the General Permit that necessitate biannual inspections by a qualified individual, and biannual effluent monitoring. We would also like to point out that if a surface discharging system is necessary, it will result in additional pollutant loading to the environment. If pollutants will be discharged to the environment, then the EPA needs to evaluate the proposed discharge to determine eligibility pursuant to the CWA. The terms and conditions of the General Permit provide assurance that when discharges to waters of the United States occur, they will be protective of human health and the environment. Therefore, in order to assess compliance with the General Permit, biannual inspections and effluent monitoring are required.

Comment: From our perspective, these requirements pose an unfair financial burden — these unsewered towns and small communities have no access to the federal funds infrastructure grants that are available to communities served by public sewer systems. We are asking these citizens to pay for all the costs while their "larger" towns have the EPA requirements subsidized by federal and state funding-the poor get poorer. Please add a financial assistance program for small communities to access in order to help their residents as you have provided assistance to larger communities through public sewer grants and loans.

EPA Response: There are a number of federal sources available for funding onsite wastewater projects and management. The following website offers some common funding sources that might be helpful: <http://water.epa.gov/infrastructure/septic/funding.cfm>.

Comment: We strongly recommend that operation and maintenance providers be required to be manufacturer certified. The ability of the system to meet the parameters of the permit relies strongly on the proper maintenance of the system. This can only be achieved by a person who is completely understanding of the biological and mechanical functions of the plant.

EPA Response: Not all manufacturers will have certification programs, and there is a possibility that manufacturers may go out of business at some point during the life of a system. EPA believes that the individuals listed as qualified under Section III.C.2 possess the necessary qualifications and experience to maintain these systems.

Comment: Section III.A.1.c.: Treatment unit replacement parts should have wording added that include original equipment manufacturer or equivalent replacement parts may be used as long as the unit discharge requirements are met. Equivalent parts need to be included as some manufacturers go out of business, or improvements in technology allow for improved performance and/or reliability.

EPA Response: EPA agrees with the point raised by the commenter and will expand the list of available parts to allow original equipment manufacturer or equivalent replacement parts.

*EPA revised Section III.A.1.c to expand the list of replaceable components consistent with the response.*

Comment: Not every licensed environmental health practitioners (LEHP), installer or Illinois licensed professional engineer knows the specifics of maintenance of discharging systems. Maintenance is different from designing systems on paper and even installing systems. There are a limited number of service companies already out there and even less number of service companies that will meet these requirements. My comment is to provide a maintenance provider certification in Illinois in which the training is provided. The commenter also seeks training for parties doing compliance inspections

EPA Response: Section III.A.2 of the General Permit does indicate that inspection and operation and maintenance tasks be performed by a qualified individual with sufficient training or experience to ensure that General Permit requirements are met, and refers to Section III.C.2 for qualification requirements. The qualification requirements at Section III.C.2 list individuals that EPA thinks will have the necessary training or experience to meet the requirements of the General Permit, and include wastewater treatment plant operators, licensed environmental health practitioners, Illinois Department of Public Health licensed Private Sewage Disposal System Installation Contractors, individuals holding the basic or advanced Certified Installer of Onsite Wastewater Treatment System certification, and Illinois licensed professional engineers.

Regarding the commenter's request to provide a maintenance provider certification program, this is something EPA does not have the resources to accomplish. EPA would like to clarify that the reference to training in Section III.A.2 was not meant to suggest that EPA would provide training, but rather to establish a requirement for permittees to ensure that they employ qualified individuals with sufficient training or experience to perform operation and maintenance tasks on their surface discharging systems.

## **B. Effluent Limitations and Monitoring Requirements**

Comment: If the permittee becomes aware that the discharge that the permittee's system causes or contributes to a violation of any applicable water quality standard (in 35 Illinois Administrative Code), the owner/operator must take corrective action, including cessation of the discharge, if necessary. EPA should provide some examples of what violations would require corrective action immediately. How would the violation of any water quality standard in 35 Illinois Administrative Code be known or determined by the permittee? Cessation would require vacating the home or business — correct?

EPA Response: The General Permit includes effluent limitations based on Illinois water quality standards for fecal coliform, and chlorine. Semi-annual sampling will reveal whether these permit limits are being met or exceeded, and only in case of the latter would corrective action be required. If effluent limits are exceeded, chances are the system is not operating as intended and likely requires some level of maintenance, or adjustment to bring the system into compliance. For instance, if the fecal coliform limit is exceeded, it is likely that the disinfection system is not working properly. Therefore, instead of requiring the stoppage of the discharge, the proper corrective action would be to fix or adjust the disinfection system.

EPA does not anticipate that cessation of the discharge will be necessary except under extreme situations. The best way to avoid these situations is for a permittee to have an ongoing maintenance program which will minimize the likelihood of a situation requiring that the discharge be stopped. In extreme situations, EPA may require that nonconforming discharges be stopped, based upon the Agency's responsibility to ensure that discharges are permitted in accordance with the CWA. In the event a cessation were to be necessary, there are options available that can be used as temporary interim measures. These include, but are not limited to, having the system pumped or the use of a portable toilet.

Comment: If an approved manufacturer's product is installed, that manufacturer should certify who is qualified to conduct the semi-annual inspections and effluent monitoring.

EPA Response: Not all manufacturers will have certification programs, and there is a possibility that manufacturers may go out of business at some point during the life of a system. EPA believes that the individuals listed as qualified under Section III.C.2 possess the necessary qualifications and experience to inspect and monitor these systems.

Comment: Sampling every 6 months will put quite a financial strain on a lot of homeowners. We believe that sampling once a year is plenty sufficient for a residential onsite system. Ohio EPA NPDES only requires once a year sampling. Requiring a homeowner to retest within 30 days may not always be required. We would prefer that the Homeowner be offered a similar requirement to that of the Ohio EPA. They require resampling only if the system failed the parameters by a large amount. I have attached OEPA's "options for action". The OEPA set different levels of "failure" since the sample being taken is only a snapshot of the systems performance at that very second the sample was taken. If the samples taken only miss the parameters by a small number, a service visit may only need to be required.

EPA Response: EPA will remove the requirement for follow-up sampling when monitoring results indicate that effluent limits are not being met during the first permit term and reevaluate this decision when the General Permit is renewed for the second term. However, EPA will retain the bi-annual sampling requirement from the draft General Permit, and reevaluate whether it is needed when the General Permit is renewed for the second term.

EPA recognizes that grab samples taken biannually as required in the General Permit do not fully characterize system operation. In an effort to reduce the burden of follow-up testing during the first permit term, EPA will forego the requirement for follow-up sampling and move toward adopting a tiered approach with varied levels of action depending upon the magnitude of the exceedance for the second term of the General Permit. This approach will be similar to that taken by the Ohio EPA to address the variability of monitoring results as part of its general permit for surface discharging systems.

The approach used by the Ohio EPA to establish the levels of action in its general permit for surface discharging systems is based on actual data submitted by individuals covered under its general permit. This data was used to conduct a confidence interval analysis to establish the threshold values that would trigger various levels of action by the permittee during the first

permit term (Ohio EPA is currently into its second 5-year permit cycle). However, since EPA does not have any data currently, EPA is unable to establish a tiered approach similar to that which the Ohio EPA established until monitoring data is available. Furthermore, EPA's retaining the biannual sampling requirement from the draft General Permit will ensure that actual system data is available when developing the renewed general permit for the second five-year term. This data will allow EPA to perform a confidence interval analysis that will enable the Agency to establish tiered levels of action similar to that which is used by the Ohio EPA. Without actual data, EPA is unable to propose tiered threshold limits.

*EPA revised the footnotes pertaining to follow-up sampling in Part III.B corresponding to the tables of effluent limitations entitled "Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States" and "Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States where the discharge is within 100 feet of the Average Water Level of lakes, ponds or impoundments" consistent with the change described above to forego the requirement to conduct follow-up sampling.*

Comment: The Illinois EPA is not opposed to using surrogate parameters (chemical oxygen demand for BOD<sub>5</sub>, and turbidity for total suspended solids (TSS)) but believes the limitations proposed in the draft General Permit on page 12 do not reflect the relationships identified in the Public Notice/Fact Sheet (PN/FS). As discussed on page 63 of the PN/FS, the BOD<sub>5</sub>/COD ratio is 0.6 to 0.64. The proposed chemical oxygen demand (COD) surrogate limit is 55 mg/L, which yields a BOD<sub>5</sub> to COD ratio of 0.82. The range of COD limits using the identified ratio in the PN/FS is 70 to 75 mg/L. The EPA should use 70 mg/L as a minimum for the COD limit or provide a rationale behind the 55 mg/L COD limit.

EPA Response: EPA appreciates the support expressed for the use of chemical oxygen demand (COD) as a surrogate for five-day biochemical oxygen demand (BOD<sub>5</sub>). As discussed in the draft Fact Sheet, the BOD<sub>5</sub> to COD ratio for wastewater ranges from approximately 0.6 to 0.64. EPA agrees that the COD limit in the draft General Permit does not correspond to the ratios in the Fact Sheet, and will adjust COD limit to be consistent with the data. EPA intends to maintain the BOD<sub>5</sub> limit of 45 mg/L, and will adjust the COD limit to be 72 mg/L, which is within the range of BOD<sub>5</sub>/COD ratios in the Fact Sheet.

*In Part III.B, EPA revised the COD effluent limit set forth in the table of effluent limitations entitled "Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States" consistent with the change described above.*

Comment: Does dissolved oxygen (DO) have to be measured in the field for all samples or only if you are running chemical oxygen demand (COD)? Can dissolved oxygen be measured in the lab? My comment is that when biochemical oxygen demand (BOD<sub>5</sub>) samples are run, a DO sample is not needed. The initial reading of a BOD<sub>5</sub> is the initial dissolved oxygen and the final reading is the final dissolved oxygen.

EPA Response: EPA is allowing, but not requiring, that samples be analyzed in the field to the extent that the applicable test methods can be conducted in the field. Part of EPA's reason for allowing field analysis was to make it easier for rural areas to perform monitoring. This is also why EPA is allowing alternate limits such as COD to be used to alleviate the time sensitivity concerning sample analysis.

EPA agrees with the commenters that the initial reading on a BOD sample is the initial dissolved oxygen, and that the final reading is the final dissolved oxygen. However, EPA disagrees with the comment urging EPA to drop the requirement for a dissolved oxygen reading when a BOD analysis is performed. EPA thinks that adopting this suggestion could potentially result in dissolved oxygen not being reported on the Discharge Monitoring Reports. Therefore, EPA will continue to require monitoring for dissolved oxygen, regardless of whether or not a sample is analyzed for BOD.

Comment: Can TRC and pH be measured in the lab?

EPA Response: TRC and pH can be measured in the lab. However, part of the reason that EPA allowed these parameters to be sampled in the field was that it would be easier for rural areas to perform monitoring.

Comment: Turbidity, as discussed on pages 65 through 71 of the Public Notice/Fact Sheet, has a relationship of 2.0 to 2.7 times the TSS values of treated effluent. The selected effluent limit of 15 nephelometric turbidity units (NTU) is one third the TSS limit of 45 mg/L. EPA should use 90 NTU as a minimum for the turbidity limit or explain how the 15 NTU limit was derived.

EPA Response: You are correct that the Fact Sheet states a relationship of 2.0 to 2.7 times the TSS values of treated effluent and that this relationship was applied incorrectly to determine the corresponding turbidity effluent limit in nephelometric turbidity units (NTU). However, subsequent research regarding the relationship between TSS and turbidity for wastewater has identified a number of references that indicate a variable relationship between these two parameters. This range of variability, as discussed below, precludes our ability to establish an alternative turbidity limit in the permit. Therefore, EPA removed the turbidity value of 15 NTU intended for use as an alternative limit for TSS from the General Permit.

At very low TSS and turbidity values, TSS concentrations in mg/L can be slightly lower than turbidity in NTUs. However, as treated effluent quality decreases (i.e., as TSS and turbidity values increase), the numeric values for turbidity and TSS achieve a rough equivalence, and then diverge significantly as wastewater quality decreases further. The exact ratio is heavily dependent on the type of wastewater, treatment efficacy, treatment system operation, and other factors, but as Crites and Tchobanoglous note,<sup>2</sup> the range can be as high as TSS = approximately 2x (or more) turbidity for effluent measured at 20 to 40 mg/L TSS. Therefore, because of the range of variability exhibited in the relationship between TSS and turbidity, EPA is unable to include an alternative turbidity effluent limit in the final General Permit. However, as additional research on this relationship for effluent produced by small wastewater treatment systems

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<sup>2</sup> Fact Sheet reference, p. 84.

becomes available, EPA may reconsider its decision and may include a turbidity value in future permit proceedings.

*In Part III.B, EPA removed the turbidity value of 15 NTU, intended for use as an alternative limit for TSS, from the list of effluent limits set forth in the table of effluent limitations entitled "Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States" consistent with the change described above.*

Comment: Why are fecal coliform listed as one of the effluent limitations in the General Permit and not e. coli? When fecal coliforms are required, there is a 5 or 6 hour window to get the sample to the lab. In rural areas, this can add quite a bit to the cost of collecting samples.

EPA Response: The General Permit was written to be protective of Illinois water quality standards. Illinois water quality standards designate uses for water bodies throughout the State and assign pollutant specific criteria to protect those uses. Illinois elected to set criteria for fecal coliform to ensure that waters designated for primary contact are protected. Therefore, to be consistent with state water quality standards, effluent limits for fecal coliform were included in the General Permit. Illinois has not set a water quality standard for e-coli.

EPA recognizes that effluent sampling of many of the parameters regulated by the permit are time sensitive with regard to when the analysis needs to be performed. However, since this is a permit for discharges to waters of the United States in Illinois, it needs to be protective of Illinois water quality standards where those standards are applicable.

Comment: The Fact Sheet indicates that fecal coliform samples must be refrigerated and delivered to the laboratory for analysis within 4 to 6 hours. Currently, IDPH allows up to eight hours. According to 77 Illinois Administrative Code (IAC) §465.370(j): "The time from sample collection to placement in the incubator... for total coliforms and fecal coliforms... shall not exceed eight hours."

EPA Response: The General Permit requires that monitoring must be conducted according to test procedures approved under 40 C.F.R. Part 136 (See General Permit, Standard Conditions, Section III.D.10.d). The approved test procedures for fecal coliform under 40 C.F.R. Part 136 are identified in Table 9-9(a) of the Fact Sheet. Any requirements concerning sampling of fecal coliform shall be done according to the approved test procedures set forth in that table.

Comment: Although the effluent limits for Total Residual Chlorine coincide with the disinfection requirements of the PSD Code, 77 III. Adm. Code 905.120 (e), the Illinois EPA does not believe that intermittent discharges can achieve this requirement consistently and that a true benchmark of the disinfection system is achievement of the fecal coliform limitation. Chlorine dissipation can occur in the chlorine contact tank when tank contents are held for long periods of time. Several contact tank change overs may need to occur before a meaningful sample can be collected that would be indicative of the chlorine delivery system operation. The Illinois EPA suggests that if the fecal coliform limit is achieved, but the benchmark chlorine level has not been obtained, that field conditions be noted, including inspection of the delivery system and flow rate through the system, without additional follow-up sampling.

EPA Response: EPA agrees that satisfaction of the fecal coliform numeric effluent limitation can serve as proof that the disinfection system is working properly. While failure to meet the TRC benchmark range will not require follow-up monthly sampling, it will require system adjustment, depending on whether the TRC value is below or above the benchmark range.

Furthermore, the draft General Permit and Fact Sheet note that sampling for total residual chlorine (TRC) is only required when chlorine is used as a disinfectant (i.e., rather than UV, ozonation, or filtration). EPA notes that there are a variety of disinfection devices available for new and replacement surface discharging wastewater treatment systems, and is aware of the difficulties experienced with gravity-feed erodible tablet chlorinators (e.g., operator failure to restock chlorine tablets, poor quality chlorine tablets, premature tablet dissociation and deterioration in the tube, clogged feed tubes, inability to properly calibrate chlorine delivery, etc.). Since the General Permit applies only to new and replacement systems, dischargers will have the option to explore technologies which can deliver appropriate levels of disinfection for the best value in terms of capital and operation/maintenance costs.

*EPA revised the footnotes pertaining to follow-up sampling of TRC in Part III.B corresponding to the tables of effluent limitations entitled “Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States” and “Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States where the discharge is within 100 feet of the Average Water Level of lakes, ponds or impoundments” consistent with the change described above.*

Comment: Why must TRC be sampled in two locations of the system? This seems unnecessary. Since grab samples are just snapshots in time and there is great variation in the concentration of the parameters in onsite systems, (there is no average flow), it seems another methodology should be used for determining concentrations.

EPA Response: Total residual chlorine is comprised of two components, a benchmark range, and an effluent limit based on Illinois water quality standards. Two different sampling points are required due to the nature of the limitations. The benchmark range is intended to provide an indication whether the chlorine disinfection system is operating efficiently (if one is being used); if so, the General Permit requires that a sample be taken from the sample port at the exit of the chlorine disinfection system. Effluent limits based on water quality standards must be met at the point of discharge, which is the point where the discharge enters waters of the United States.

Comment: Because the TRC limit is at such a low level (.038 mg/L), EPA should discuss in the Public Notice/Fact Sheet minimum reliable detection levels of the acceptable EPA analytical methods. These analytical methods identify minimum detection levels, many with caveats stipulating the detection levels are achievable under ideal conditions. Additionally, interferences when trying to detect such low concentrations can create false positives. EPA should then identify for each method a reliable minimum detection level for each analytical method that is achievable when results can, without doubt, be considered true and accurate. Additionally, the minimum detection levels will be above the TRC limit. EPA should describe how TRC should be reported on the Discharge Monitoring Report forms (DMRs). It has been Illinois EPA's

experience that confusion is created when detection levels are above permit limits. Illinois EPA recommends that a 0.05 mg/1 effluent limit be used for compliance purposes.

EPA Response: Sampling and storage are the main challenges that can prevent chlorine from being reliably quantified. To further this point, the *Standard Methods for the Examination of Water and Wastewater, 19<sup>th</sup> Edition 1995* states the following on page 4-37 regarding sampling and storage:

Chlorine in aqueous solution is not stable, and the chlorine content of samples or solutions, particularly weak solutions, will decrease rapidly. Exposure to sunlight or other strong light or agitation will accelerate the reduction of chlorine. Therefore, start chlorine determinations immediately after sampling, avoiding excessive light and agitation. Do not store samples to be analyzed for chlorine.

Due to the sensitivity of chlorine samples when agitated and exposed to light, EPA expects that chlorine sampling will be performed in the field using Standard Method 4500-Cl G, which is a colorimetric method. Under ideal conditions, this method is capable of achieving a minimum detectable concentration of 10 micrograms of chlorine per liter (or 0.01 milligrams per liter). Even though Standard Method 4500-Cl G is capable of achieving a minimum detectable concentration that is less than the chlorine concentration effluent limit in the General Permit, EPA recognizes the sensitivity of chlorine sampling and the inability to achieve ideal conditions in the field. Therefore, we agree that establishing a level of quantitation, as you suggest, to account for non-ideal conditions in the field so that results that are both reliable and reproducible can be consistently achieved in the field.

The level of quantitation is derived from the method detection level, and these terms are defined in the *Standard Methods for the Examination of Water and Wastewater, 19<sup>th</sup> Edition 1995*, as follows:

Method detection level (MDL) is defined as the constituent concentration that, when processed through the complete method, produces a signal with a 99% probability that it is different from the blank. For seven replicates of the sample, the mean must be  $3.14s$  above the blank where  $s$  is the standard deviation of the seven replicates. Compute MDL from replicate measurements one to five times the actual MDL.

Level of quantitation (LOQ) is defined as the concentration that produces a signal sufficiently greater than the blank that it can be detected within specified levels by good laboratories during routine operating conditions. Typically it is the concentration that produces a signal  $10s$  above the reagent water blank signal.

The MDL for Standard Method 4500-Cl G is 10 micrograms of chlorine per liter. From the definition it can be concluded that 10 micrograms of chlorine per liter is equal to  $3.14s$  above the blank (10 micrograms of chlorine per liter =  $3.14s$ ). Similarly, it can be concluded that the LOQ for chlorine is equal to  $10s$  above the blank (LOQ =  $10s$ ). Since there are two equations and two unknowns, the LOQ is found to be 31.8 micrograms of chlorine per liter (0.03 milligrams chlorine per liter). Since the MDL is below the effluent limit in the General Permit, EPA added instructions to the General Permit on how the results should be reported on the DMR form.

The MDL and corresponding LOQ derived above are representative of what can be quantified in a laboratory setting and may not be achievable in the field. Therefore the permittee may determine a case-specific MDL and corresponding LOQ or any other test method that is approved for use. The alternative MDL shall be derived by the procedure specified for method detection limits contained in 40 C.F.R. Part 136, Appendix B, and the LOQ shall be set equal to 3.14 times the MDL.

Lastly, EPA will not adjust the chlorine effluent limitation upward for compliance purposes at this time. EPA's reasoning for not modifying the chlorine limitation is because, for compliance purposes in the second five-year permit term, EPA plans on developing a "level of action" approach to compliance that is similar to that which Ohio EPA uses for assessing compliance with its onsite general permit. Furthermore, EPA has decided to forego the follow-up testing requirement during the first General Permit term for samples that are out of compliance with the effluent limits set forth in the General Permit.

*EPA revised Part III.C (Inspections and Reporting Requirements) to include instructions on how to report chlorine or other effluent values that are less than the MDL. EPA will also revise this section so that it is consistent with the response to allow alternative MDLs and LOQs to be determined pursuant to 40 C.F.R. Part 136, Appendix B.*

*EPA revised Part IV to include definitions for Method Detection Level, and Level of Quantitation.*

Comment: The Fact Sheet states that typical O&M requirements for chlorine systems require 4 to 12 visits per year to check and adjust the chlorine. My comment — is this a requirement that a chlorine system be checked 4 to 12 times a year? Who will do this, the "qualified inspector" or the homeowner? I do not believe that any service contract includes up to 12 visits per year. In addition according to a local vendor in the Chicago land area, a 5 gallon bucket of chlorine tablets which provides enough tablets to last a year costs \$250, not \$50, as stated in the Fact Sheet. Also, if chlorine is adjusted, when does it need to be checked again? One month or just at the next 4-to-12 time rotation?

EPA Response: The Fact Sheet is made available in support of the draft General Permit, as well as to provide additional information to permittees about how the systems work or should be maintained, but does not include any binding requirements in addition to those set forth in the General Permit. Only the General Permit includes the terms and conditions that must be met by individuals who receive permit coverage. EPA would like to point out that the General Permit requires that the operation and maintenance procedures and tasks recommended by the treatment manufacturer and the manufacturer(s) of components of the system, or by the system designer and installer, must be completed by the permittee in accordance with the schedule recommended for the particular system or components. (See Section III.A.1.b).

Furthermore, the draft General Permit and Fact Sheet note that sampling for total residual chlorine (TRC) is only required when chlorine is used as a disinfectant (i.e., rather than UV, ozonation, or filtration). EPA notes that there are a variety of disinfection devices available for new and replacement surface discharging wastewater treatment systems, and is aware of the difficulties experienced with gravity-feed erodible tablet chlorinators (e.g., operator failure to

restock chlorine tablets, poor quality chlorine tablets, premature tablet dissociation and deterioration in the tube, clogged feed tubes, inability to properly calibrate chlorine delivery, etc.). Since the General Permit applies only to new and replacement systems, dischargers will have the option to explore technologies which can deliver appropriate levels of disinfection for the best value in terms of capital and operation/maintenance costs.

Comment: Does the General Permit only require fecal coliform sampling from May to October? If so, the General Permit still requires 2 grab samples every six months for systems with chlorine — is that impossible? My comment is to take out the May to October requirement. If six month sampling is required, one sample would be May and the other would be October. What if the May sample is >400mg/L? Another sample will be taken in June and if that is bad, another in July, and so on and so on. Is it six months from the first sample or from the first compliant sample?

EPA Response: EPA would like to clarify that the General Permit does not include fecal coliform as a seasonal (e.g. May to October) parameter. The fecal coliform effluent limit in the General Permit is in place year round. Furthermore, since EPA is foregoing the requirement that follow-up sampling be conducted during the General Permit's first five-year term, there is no need to clarify the timeliness of the second required sampling date.

Comment: The measurement of flow also appears to be difficult to do on residential units. Flow fluctuates throughout the day and night. Most sampling occurs during the day and during the work week. The flow at these times is different after work and school hours or on the weekend. If the EPA wants a measurement of flow, a flow meter or flow monitoring device needs to be required as part of the permit and then required as part of the installation of the system.

EPA Response: EPA is not requiring that a flow meter be installed to determine the flow rate. In the General Permit, EPA states that flow estimates can be derived from instantaneous timed water meter data, effluent flow measurements, or other methods and are to be recorded as gallons per day. See Part III.B.: *Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to waters of the United States*, footnote 7, and *Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States where the discharge is within 100 feet of the Average Water Level of lakes, ponds, or impoundments*, footnote 5.

Comment: Are the parameters of oil, odor, color, and floating debris required to be checked by the qualified inspector or is this done by the owner/operator (Fact Sheet page 58). Is this a parameter that requires a 30 day sample if effluent does not meet the maximum daily limitation? If this should be checked by the owner/operator, there needs to be a reference guide for these individuals to describe what the effluent should look like and what it should not look like.

EPA Response: With regard to the requirement that there shall be no oil, odor, color, or floating debris, EPA agrees that there should be a reference guide to describe the effluent with respect to these parameters. To accomplish this, the effluent tables will include a footnote with the following information describing how to characterize the effluent.

*EPA added the table set forth below for the parameters of oil, odor, color and floating debris to the footnotes corresponding to the tables of effluent limitations entitled, "Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States" and "Effluent Limitations for surface discharges to Waters of the United States or to conveyances that discharge to Waters of the United States where the discharge is within 100 feet of the Average Water Level of lakes, ponds or impoundments."*

REPORTED VALUE	SEVERITY DESCRIPTION	OIL	ODOR	COLOR	FLOATING DEBRIS
0	None	No Sheen	None	Colorless	None
1*	Mild				
2	Moderate	Light Sheen	Musty	Grey	Some Debris
3*	Serious				
4	Extreme	Heavy Sheen	Septic	Black	Heavy Debris

\*interpolate between values

Regarding the need for follow-up sampling for these parameters, please refer to the prior comment/response regarding EPA’s decision to forego follow-up sampling during this first General Permit term.

Comment: Concerns about the follow-up sampling required every 30 days include: cost, who will do it, where are the labs? Can the homeowner do the 30 day follow-up sampling? Who will be ensuring that the 30 day follow-up samples are done and what are the consequences?

EPA Response: EPA has decided to forego the requirement that follow-up sampling be conducted during the General Permit’s first five-year term.

Comment: EPA should allow "trained individuals" to collect samples and consider these trained individuals "qualified."

EPA Response: A “qualified individual” shall conduct any monitoring/sampling required by the General Permit. As defined in Section III.C.2 of the General Permit, qualified individuals include trained and experienced wastewater treatment plant operators, licensed environmental health practitioners, Illinois Department of Public Health licensed Private Sewage Disposal System Installation Contractors, individuals holding the basic or advanced Certified Installer of Onsite Wastewater Treatment System certification, and Illinois licensed professional engineers. EPA believes that this list of qualified individuals have the necessary skill sets to sample effluent and conduct field analyses; thus, these are their defined responsibilities under the General Permit.

Comment: My comment regarding the 30 day resampling would be to have a "satisfactory range" for each effluent parameter that would not require the resample but possibly some servicing of the system. If the sampling result were outside that "satisfactory range" then the 30 day resampling would be required. For example: if BOD<sub>5</sub> is required to be 45 or less, there would be a "satisfactory range" of 45-60 mg./L where a resample would not be required but once the result is over 60, resampling every 30 days would be required until the result was within the satisfactory range. As the General Permit is written, resampling would be required at 46.

EPA Response: See the Response to Comments set forth above regarding development of tiered levels of action, and follow-up sampling.

Comment: The mandates placed on homeowners for testing, inspecting, and monitoring requirements in the General Permit could exceed \$1,000 per year per home in small communities. The penalties for non-compliance are also excessive for an individual homeowner.

EPA Response: EPA is aware of the cost of inspections and effluent sampling, and has attempted to minimize these costs as much as possible. For example, giving permittees the opportunity to use chemical oxygen demand (COD) rather than five-day biochemical oxygen demand (BOD<sub>5</sub>) is intended to save on sampling and analysis expenses. The user costs for inspection and effluent monitoring expenses for treatment systems covered by the General Permit are within the range of costs borne by users of other mechanized wastewater treatment facilities with surface discharges, including those in other Illinois counties with system inspection and effluent monitoring requirements.

### **C. Inspection and Reporting Requirements**

Comment: The draft General Permit and its components for compliance are difficult for the average property owner to follow and comprehend. We also believe implementation of the General Permit will increase inspection costs performed by "qualified individuals" through increased demand and overhead incurred by the "qualified individual" to cover training and certification costs.

EPA Response: The General Permit provides coverage for New and Replacement Surface Discharging Wastewater Treatment Systems that discharge pollutants to Waters of the United States or to conveyances to Waters of the United States in Illinois. These systems are not intended to be installed, operated, or maintained by the average person. EPA acknowledges that the General Permit and other permits related to wastewater treatment systems – including existing provisions within the Illinois Private Sewage Disposal Code – address complex technical, engineering, design, operation, maintenance, and other issues that are, in most cases, beyond the level of understanding of the average person. EPA also notes that permits for surface discharging and subsurface discharging wastewater system design, installation, and operation are typically handled by professional service providers, and assumes that will be the case for treatment systems permitted under the General Permit .

There are a number of different types of wastewater treatment systems which have been installed, operated, and maintained in Illinois for more than 20 years. The State of Illinois – and other states using these types of systems – usually require some level of professionalism in system design, installation, operation, and maintenance. For example, current IDPH rules under Section 905.100 of the PSD Code for wastewater systems which typically discharge to surface waters (i.e., aerobic treatment units) require that such systems be tested and listed by NSF International or a laboratory approved by ANSI to determine compliance with the requirements of ANSI/NSF Standard 40, which applies to residential wastewater systems. Standard 40 is a standard that covers an organized and coordinated system of components that function to treat wastewater generated by individual residences.

Section 905.100 further notes that treatment units falling within the scope of Standard 40 require periodic maintenance to achieve performance consistent with demonstrated capabilities, and specifies that “(i)mplicit in Standard 40 is the recognition that assured professional service is imperative.” IDPH rules require a two-year service policy to be provided as part of the initial service agreement for the wastewater treatment system. The rules require that a two-year service policy be furnished to the purchaser by the private sewage disposal installation contractor through the manufacturer or the distributor of the aerobic treatment unit. This policy must provide four inspection/service calls, at least one every six months, which includes inspection, adjustment, and servicing of the mechanical and the applicable component parts to ensure proper function; and an effluent quality inspection consisting of a visual check for color, turbidity, scum overflow; and an examination for odors.

EPA anticipates that costs for system inspection and effluent sampling will decrease over time, due to increases in professional service personnel expertise and normal marketplace competition. Illinois currently maintains a training program for certifying wastewater operators (see <http://www.epa.state.il.us/water/operator-cert/waste-water/index.html>), who may serve as system inspectors. The Illinois Wastewater Operator Certification Program is intended to protect public health, environmental quality, and the financial investment of wastewater facilities by certifying the technical competency of operators of domestic and industrial wastewater treatment/pretreatment facilities. In order to determine competency, the Illinois EPA evaluates whether applicants for certification possess the necessary skills, knowledge, ability, and judgment to properly operate and maintain the facilities entrusted to their care. Therefore, applicants for certification must meet specific experience, education, and examination requirements in order to qualify for certification. Certification examinations and questions have been validated through a process of expert panel review with every question being examined for content, readability, accuracy, and relation to a job analysis. Certification examinations are offered each month at various locations around the State.

Comment: Under Section III. C.3, the commenter recommended a written protocol for what to do if the system is not discharging at the time of inspection, including multiple checks of a system, still without finding a discharge. We recognize that there are concerns with sampling in a sample port — standing water and not flowing water but in these low volume/low flow systems, the EPA needs to either allow sampling from the sample port or allow for discharge monitoring reports (DMRs) to be submitted with no sample results due to no flow-out of the pipe upon inspection on a given date. The visual inspection must ensure that ponding is not occurring in any subsurface sand (or other media) filter. How is this done?

EPA Response: The commenter provided further clarification to the comment regarding sampling procedures when the system is not discharging. Will County samples its surface discharging systems 2-3 times per year. The County’s experience has shown that the majority of the more than 3000 systems that it samples annually is not discharging at the time samples are taken. In these situations, samples are typically collected from the sample port on the contact chamber. This enables the County to collect samples that provide a good indication regarding system performance, while avoiding the need to have samplers wait for a system to discharge, or requiring a permittee to run water to force the system to discharge. Regarding the latter point, the commenter points out that requiring a homeowner or operator to run water essentially dilutes

the system with clean water and EPA agrees that samples taken under conditions such as these would not be representative of actual system operation.

In order to address the commenter's concern regarding sampling, EPA believes that the approach taken by Will County provides a practical means by which samples can be taken when a system is not discharging at the time of inspection/monitoring. Inspectors/samplers should first check to see if the system is discharging, and take a sample where the effluent exits the discharge pipe. However, if a system is not discharging at the time of inspection/monitoring, the inspector/sampler shall collect a sample from the contact chamber, or other accessible point downstream of the treatment units.

In order to determine if ponding is occurring, the inspector must visually survey the area to determine whether there is any standing water on the ground surface above, or within proximity to the location of the subsurface treatment units (e.g. septic tank, media filter, etc.). The inspector shall make note of his/her observation regarding whether ponding is occurring.

*EPA revised Section III.C.3.c, and Section III.C.3.d to include a footnote addressing steps that inspectors/samplers must take in the event a system is not discharging at the time of inspection, consistent with the response provided.*

Comment: The commenter requested the following amendment to the General Permit's reporting requirements for effluent sampling results:

During an inspection of a surface discharging system where all system components are working properly, effluent is not surfacing and there are no signs of previous effluent surfacing because effluent is staying within the evaporation bed/ effluent receiving trenches - samples shall be collected from the sampling port and the results should be reported to the homeowner as a quality control check. The test results from samples taken as quality control check should not be reported as a determination of compliance with effluent limitations and monitoring requirements since the effluent is not reaching the waters of the United States. The observed result of the effluent not entering the waters of the United States will then be reported to the EPA.

EPA Response: If the system is covered under the General Permit, regardless of whether the system is discharging to waters of the United States at the time of any inspection, the results of that sample taken must be submitted to EPA. This includes results taken from a sample port in situations when the system is not discharging at the time of the inspection/sampling.

Comment: Who is ensuring that visual inspections are completed within the 14-day period which is "no earlier than 90 days and no later than 104 days following the most recent semi-annual inspection and effluent monitoring?" The commenter also suggested that EPA remove the requirement that homeowners visually inspect their systems from the General Permit since most homeowners/operators will not do the inspection; will not know what to look at; could cause more harm to the system than good unless part of the permit process requires some training on the system they have, how it works, and how to identify obvious problems. The installer/

designer would have to provide the training and document that it was done prior to obtaining an occupancy permit.

EPA Response: EPA recognizes that inexperienced, untrained persons are not capable of conducting an inspection sufficient to ensure appropriate long-term operation of the treatment system, and has included a requirement in the General Permit for semi-annual inspections by qualified professionals for that purpose. However, during the six month interim period between professional inspections, system owners – with the proper orientation – can visually examine the system, and observe any obvious problems or issues that might need to be addressed. For example, wastewater discharges from piping or tanks, damage to risers or other components, unusual noises or odors, and other observations can indicate a need for immediate attention to ensure proper system operation. Therefore, the General Permit requires that surface discharging systems must be visually inspected by the owner or operator twice per year to ensure that no foreign objects are interfering with treatment processes (e.g. trash, debris) and effluent quality appears to be normal. Visual inspections must occur no earlier than 90 days, and no later than 104 days following the most recent semi-annual inspection and effluent monitoring. If the result of a visual inspection indicates that there is a problem, the owner or operator must take corrective action, as required in Part III.D. The owner or operator shall also maintain a log of the visual inspections and record the date the visual inspection was performed, and any problems causing the system to operate improperly, if any.

Comment: It seems the proposed inspection and sampling requirements are beyond what is necessary to ensure the systems are functioning properly. We do not believe that there is sufficient documentation in the Fact Sheet for the requirement for semiannual inspections. While the Fact Sheet contains information suggesting that a high proportion of surface discharging treatment systems installed are not functioning to manufacturer standards, it does not provide an explanation of why annual inspections and effluent monitoring, for example, would not be sufficient for determining whether a system operates according to the permit conditions, or what the incremental value is to public health and the environment of having two inspections a year rather than one. We also believe there needs to be additional consideration as to what would be the additional direct and indirect financial burden on permittees of the more frequent monitoring schedule. We respectfully request that the EPA reconsider the semi-annual inspection requirements and determine whether a less frequent monitoring requirement would be reasonably sufficient to address concerns about systems failing to operate as designed. If a less frequent monitoring schedule is likely to yield sufficient data for EPA to determine in a high percentage of cases, whether the system is operating properly, EPA should allow the less frequent schedule, so that all permittees do not incur the additional costs of performing more frequent inspections. If particular surface discharging system technologies or designs do not need as frequent inspection as other technologies or designs, EPA should take that into account and set the frequency of required inspections for each type of system accordingly. Likewise, if a more frequent inspection schedule is determined to have high value during an initial period of operation, but is not reasonably necessary thereafter, EPA should adjust its inspection and monitoring requirements accordingly.

It is our recommendation that the inspections by a qualified individual be reduced to once per year and the requirement for testing an effluent sample be eliminated.

EPA Response: Surface discharging wastewater treatment systems depend on a variety of electrical and mechanical components, such as pumps, float switches, and timers. Research on the long-term operation and maintenance (O&M) of electro-mechanical wastewater treatment systems indicates that they function as intended when subjected to a management program that includes regular O&M attention. Currently, Section 905.100(g)(1) of the Illinois Private Sewage Disposal Code requires that aerobic treatment plants, many of which discharge to the surface, receive four inspection/service calls, at least once every six months, during the first two years after installation. The service calls include inspection, adjustment, and servicing of the mechanical and the applicable component parts to ensure proper function. In addition, the required inspections include an effluent quality inspection consisting of a visual check for color, turbidity, scum overflow, and an examination for odors.

EPA's approach to inspections is consistent with – but not identical to – existing IDPH requirements. In terms of the General Permit's requirement for perpetual semi-annual inspections, EPA's research regarding electro-mechanical wastewater treatment systems indicates that, as these facilities age, the need for O&M attention remains steady or even increases, as electrical and mechanical components deteriorate and ultimately fail to operate as intended. Previous EPA guidance, based on industry recommendations for add-on treatment units between the septic tank and final discharge point, has noted the need for semi-annual operational visits, including inspection, maintenance, and effluent sampling, if required.

Effluent sampling is a standard component of the inspection process for wastewater treatment systems, regardless of size. EPA includes effluent sampling – along with visual inspection of the effluent and visual screening for operational problems – as part of the inspection requirements in the General Permit. The parameters included in the General Permit effluent sampling requirements are somewhat similar to those used by other regulatory agencies, and are included in the General Permit to ensure protection of beneficial uses (e.g., aquatic life support, contact recreation) in the receiving waters.

Comment: I think that EPA should allow licensed installers in Illinois and individuals holding a Certified Installer of Onsite Wastewater Treatment Systems certification from NEHA along with individuals trained by the manufacturer on the specific unit and other individuals (such as local health department employees) who have been specifically trained on conducting visual inspections as qualified individuals able to conduct visual inspections for surface discharging units.

EPA Response: EPA would like to clarify that there are two types of inspections required under the General Permit: visual inspections (conducted by the owner or operator of the system); and semi-annual inspections (conducted by experienced wastewater treatment plant operators, licensed environmental health practitioners, Illinois Department of Public Health licensed Private Sewage Disposal System Installation Contractors, individuals holding the basic or advanced Certified Installer of Onsite Wastewater Treatment System certification, and Illinois licensed professional engineers). EPA assumes that the commenter meant to urge that those individuals holding the certified installer of onsite wastewater treatment systems (CIOWTS) certification be included in the list of qualified individuals to conduct semi-annual inspections, not visual inspections, as indicated by the comment. EPA agrees with the commenter and will include

those individuals holding the CIOWTS certification as qualified individuals to conduct semi-annual inspections.

*EPA revised Section III.C.2 to include those individuals holding the Certified Installer of Onsite Wastewater Treatment Systems as qualified to conduct semi-annual inspections.*

Comment: One commenter recommends that the General Permit define as among the “qualified individuals” who are authorized to perform inspections of surface discharging systems be “Illinois Department of Public Health Licensed Installers” instead of "licensed installers," which is the term currently set forth in the draft General Permit.

EPA Response: EPA agrees, and will specify that “licensed installers” means IDPH-licensed Private Sewage Disposal System Installation Contractors.

*EPA revised Section III.C.2 to clarify that “licensed installers” means IDPH-licensed Private Sewage Disposal System Installation Contractors.*

Comment: Can the samplers be trained and experienced environmental samplers? Trained and experienced environmental samplers should sample the discharging systems.

EPA Response: EPA was unable to identify any formal accreditation, or professional organization regarding environmental samplers. Due to the lack of information regarding environmental samplers and their qualifications, EPA will not include them on the list of qualified individuals for purposes of collecting samples.

Comment: Can property owners inspect and test/sample their system’s effluent? If yes, can they be trusted to be competent and honest with the results? Can homeowners maintain their own systems?

EPA Response: Property owners may inspect and sample their systems if they are among the groups of “qualified individuals” as listed in Section III.C.2. of the General Permit. A property owner who inspects his or her own system would be required to sign the same type of certification of the inspection that any other inspector is required to do; there are significant penalties for a false certification.

Comment: Are there companies throughout the State with qualified professionals to monitor, inspect and sample and what do they cost? My comment would be to provide a list of companies that can service, inspect and sample discharging systems on the EPA website for easy access by operators/owners.

EPA Response: EPA thinks that the scope of individuals qualified who are able to monitor, inspect and sample systems is sufficiently broad that they can be easily found throughout the State. Section 8.1 of the Fact Sheet includes estimates that are representative of annual operation and maintenance costs for the range of service required by the General Permit which includes inspection, monitoring/sampling and maintenance.

Comment: The commenter highly recommends that the EPA require naming the specific map datum for latitude/longitude from which the coordinates are obtained. Coordinates obtained from one GPS map or conversion module cannot be applied to another GPS map without conversion to the particular map datum to which the coordinates will be applied. The use of different map datum may cause significant location differences from the property's real location and result in the inability to accurately locate permitted discharge sites. Although the General Permit allows for the use of latitudinal and longitudinal coordinates, the NOI form does not contain a field to document these coordinates under the "Surface Discharging System Location Information" section. Nor does the form have a field for the map datum used to obtain the coordinates.

EPA Response: The issue you raise in your comment concerning coordinates obtained from different maps without identifying the specific map datum from which they were obtained appears to be the difference between GIS (geographical information system) versus GPS (global positioning system). To clarify, the General Permit requires that applicants provide latitude and longitude coordinates (which are fixed) and EPA suspects that most, if not all applicants will get this data from a GPS device. For homeowner applicants, many smart phones with internet access have latitude and longitude applications. However, there are alternative ways to obtain latitude/longitude coordinates. For instance, the following web link can be used to convert a user-entered address into latitude and longitude coordinates: <http://stevemorse.org/jcal/latlon.php>. Latitude and longitude data may also be obtained through Google maps and other internet applications.

Thank you for pointing out the fact that the NOI form does not have a field for the latitude and longitude coordinates. The form has been revised to include this information. However, as discussed above, map datum is not required and the NOI form will not be revised to address this.

*EPA revised Part III of the NOI form to include a field for the latitude and longitude coordinates. EPA also revised the NOI instructions to include an EPA website that provides instruction on the format, and precision for reporting latitude and longitude coordinates.*

Comment: One commenter wants EPA to allow submittal of the discharge monitoring report (DMR) by various means including e-mail, since the EPA requirement to use certified mail is expensive. The commenter also wanted to know if EPA staff would be reviewing the data, and where the records would be kept and for how long.

EPA Response: Certified mail is required so that the homeowner has proof of receipt, and can retain this proof of receipt as a record with other permit documents. E-mail cannot be used because EPA requires that the original signed DMR be submitted. EPA recognizes that submittal of DMR data by means other than certified mail might be convenient for homeowners, and while we cannot accept a copy via email or fax at this time, we are working toward the use of an electronic DMR system. The electronic DMR system will be available for owners or operators to submit DMR data electronically in the future.

EPA staff will be reviewing the data. EPA retains records according to the Agency record retention schedule. Information regarding EPA's record retention policies can be found at <http://www.epa.gov/records/index.htm>.

Comment: A couple of the local health departments do not want to receive copies of the DMRs, and ask that the requirement that the DMR be sent to them be removed from the General Permit. According to one commenter, this extra documentation routing is not justifiable since local health departments do not have authority to act upon non-compliance with the General Permit. Furthermore, many local health departments do not have necessary file or server space to retain the additional paperwork and data. Additional data would likely be discarded or recycled.

EPA Response: Effluent monitoring results must be reported to the EPA within 10 days after receipt of the analytical test results using the discharge monitoring report (DMR) form in Appendix IV via certified mail to the address in Part II.E and signed in accordance with Part II.F of the General Permit. A copy of the signed DMR form must also be sent to the local health department, which may elect to review them to identify relevant issues (e.g., public health nuisances, threats to recreational waters). The requirement that the permittee send a copy of the DMR to the local health department is included in the General Permit as a professional courtesy to the agency responsible for protecting public health in the locality where the system is sited. EPA has not established any requirement for managing, maintaining, storing, or otherwise handling the DMRs sent to the local health departments – those decisions reside with each local health department.

Comment: In cases of noncompliance, how will compliance be achieved after you send a notice that is ignored? Will local health departments in some manner be expected to take some type of action?

EPA Response: With regard to non-compliant surface discharging systems, EPA will need to exercise enforcement discretion to determine the appropriate level of response. EPA has no expectations as to what the role of local health departments under the General Permit should be. EPA would like to emphasize that local health departments are not authorized or responsible for enforcing the General Permit; however, an activity which violates the General Permit may also violate local ordinances, and the General Permit will not impact local enforcement authority (unless it conflicts with the General Permit).

Comment: Completed inspection reports must be signed by the permittee. That will require the operator /owner to be at the property for the inspection. Homeowner and inspector will need to coordinate inspections — possibly a hardship for the operator/owner. The commenter urges EPA to change this requirement to "the completed inspections reports should be signed by the permittee" and allow the inspector to leave a copy onsite if the operator/ owner is not available.

EPA Response: The requirement for a permittee's signature is that the permittee is endorsing the inspector's report. If the permittee trusts the inspector, then the permittee may elect to sign the report subsequently. However, the permittee may also choose to be present at the time of the inspection. This is similar to inspections of the other operating systems at a residence or business such as furnaces, air conditioning systems, etc.

#### **D. Standard Conditions**

Comment: The General Permit needs to fully explain that the EPA is the enforcement entity, EPA's enforcement procedures, and what the consequences could be for noncompliance with terms of the General Permit. Also, the public needs to know where they can call to file complaints about permit violations.

EPA Response: EPA has the sole authority to enforce the General Permit. While some of the standard conditions published in the federal regulations at 40 C.F.R. § 122.41 are set forth in the General Permit, other standard conditions are incorporated by reference. For information on the EPA's enforcement procedures, please see 40 C.F.R. §§ 122.41(a) (2) and (3). Additional information regarding enforcement can be found at <http://www.epa.gov/enforcement/basics.html>.

Public reporting of emergencies and other sudden threats to public health, such as oil and/or chemical spills, radiation emergencies, and biological discharges can be made by dialing the National Response Center at 1-800-424-8802.

Complaints of potential violations of the General Permit (or other violations) may be reported by submitting the information about the suspected violation at the following web address: <http://www.epa.gov/tips/>; or by phoning the EPA Region 5 Office at 1-800-621-8431 or 312-353-3000; 8:30 a.m. - 4:30 p.m., weekdays.

Comment: Any General Permit noncompliance constitutes a violation of the CWA and is grounds for enforcement action; for permit termination, or denial or nonrenewal. Just a comment to this section of the General Permit: There are going to be noncompliance issues in regard to effluent discharge limits and per the permit requires the operator to start sampling every 30 days until corrected. At what point is the EPA going to start enforcement and if a permit is terminated what is the operator/ homeowner to do (vacate the home)? Obviously, they have already proven that sewer is not available and no other type of septic system could be installed.

EPA Response: EPA has determined that, during this first General Permit term, re-sampling will not be required. However, a permittee that is discharging to waters of the United States above the General Permit's effluent limits still will be in violation of the CWA. EPA will exercise its enforcement discretion here in basically the same manner that the Agency exercises its enforcement discretion with regard to other CWA violations. EPA's response will depend, in part, upon: (1) the seriousness of the violation, (2) the duration of the violation, (3) the steps which have been taken by the permittee to remedy or mitigate the violation, (4) the impact of the violation on human health or the environment, (5) whether this is the permittee's first violation, (6) whether the permittee is recalcitrant, or works cooperatively with EPA to address the violation, and (7) the permittee's ability to pay to address the violation.

Comment: With regard to the Standard Condition entitled "Duty to Mitigate," which states that "The permittee shall take all responsible steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit." What is meant by or "sludge use or disposal?"

EPA Response: An owner/operator must ensure that sewage sludge from its system is not spread on land contrary to the EPA Standards For The Use Or Disposal Of Sewage Sludge, 40 C.F.R. Part 503.

Comment: Please explain what the following Standard Condition, Section III D.5, means and to whom it is applicable:

Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

EPA Response: EPA agrees that lab analyses should be conducted by facilities accredited by the Illinois Environmental Protection Agency's Laboratory Accreditation Program (IL ELAP). With the exception of water compliance data for community water supplies, participation in the IL ELAP is voluntary. Therefore, EPA is unable to require that laboratories conducting analyses as part of this General Permit be accredited within the IL ELAP. However, EPA encourages that laboratories conducting analyses in support of this General Permit become accredited through the IL ELAP. Following is a link that provides information on receiving IL ELAP accreditation <http://www.epa.state.il.us/labs/programinfo.html>

With regard to "backup auxiliary facilities or similar systems," in the context of the General Permit, EPA recognizes that there are instances beyond the permittee's control, such as a power outage, but as long as the permittee is operating and maintaining the system according to the terms and conditions of the General Permit, the balance of the time then the permittee is meeting the intent of the Standard Condition.

Comment: One commenter inquired whether local health departments were meant to be included as "authorized representatives" under Standard Condition 8. Another commenter asked EPA to change Standard Condition 9 of the General Permit to include local health department representatives as "an authorized (EPA) representative" instead of just the phrase "authorized contractor."

EPA Response: EPA has the sole authority to enforce the General Permit. Local health departments would have to rely upon their own authority if they observed conditions that violate local ordinances.

Comment: With regard to Standard Condition 10.c., a chain of custody must be required in the records of monitoring.

EPA Response: Standard condition 10 is intended to apply to monitoring and records required to be kept by the permittee and is not intended to be procedural with regard to quality assurance or quality control (QA/QC), as those procedures apply to actual monitoring. EPA regulations do not specifically address chain of custody requirements. However, chain of custody requirements are included in the methods compendium for approved Part 136 methods. For example, standard

Methods contains QA/QC procedures in the Part 1000 section of the Standard Methods Compendium which includes a section on chain of custody requirements.

Although EPA is not explicitly requiring a chain of custody requirement, the General Permit does require that monitoring be conducted according to test procedures approved under 40 C.F.R. Part 136. 40 C.F.R. § 136.7 requires that the permittee use suitable QA/QC procedures when conducting compliance analyses with any Part 136 method. Since QA/QC procedures include chain of custody requirements as part of either the approved method, or the methods compendium for approved Part 136 methods, EPA thinks that this is sufficient to address the chain of custody concern raised by the commenter.

Comment: The "Paperwork Reduction Act Notice" in the draft General Permit provides an estimate of 10 hours to 110 hours for preparing the Discharge Monitoring Form. We would respectfully request that the EPA reconsider the accuracy of the "Paperwork Reduction Notice" estimate. The estimate indicates that homeowners will have to spend half a work week (20 hours) completing the two forms each year, or else pay a professional a substantial fee to complete the form for them. Should this in fact be an accurate estimate, we believe that the approach for preparation and submittal of these forms be revised to reduce the burden and cost to permittees.

EPA Response: The time estimate referred to in the discharge monitoring report (DMR) form is based on facilities that monitor for a number of different pollutants multiple times a month, and are required to submit this form monthly. Therefore, the time estimate of 10 to 110 hours is not an accurate estimate with respect to the requirements of the General Permit. The General Permit requires monitoring twice a year and the permittee is only required to record the monitoring results from the lab on the DMR form and submit it to EPA for review. EPA does not expect this process to take more than a half hour and does not expect that the homeowner will need to pay someone to fill the form out for the homeowner.

Comment: All applications are to be signed and certified. Who will certify the documentation?

EPA Response: The applicant shall be responsible for certifying the Notice of Intent and documentation. The Notice of Intent includes a certification statement prior to the signature line. See Notice of Intent Part VIII (Certification Information).

Comment: Standard Condition Section III.D.12.a. states that the permittee shall give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility if the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. Since this General Permit is for small systems (under 1,500 gallons per day) of domestic sewage only, this section may confuse an owner/operator. Therefore, EPA should provide examples to make this section more understandable such as "this section is referring to — chlorine levels, pharmaceuticals, household chemicals."

EPA Response: The Standard Condition states that notification is only necessary for pollutants that are not already subject to effluent limitations. Therefore, if a permittee makes a change in a

surface discharging system that will result in the addition of a pollutant that is not controlled by an effluent limitation in the General Permit, then EPA must be notified.

Comment: What is considered noncompliance which may endanger health or environment or require that EPA must be contacted with 24 hours? Since this General Permit is for small systems (under 1,500 gallons per day) of domestic sewage only, this section may confuse an owner/operator. Therefore, EPA should provide examples to make this section more understandable: For instance, what is considered noncompliance that may endanger health and environment vs. just a sample with results above one or more of the General Permit's effluent limits? Also, EPA should provide its 24-hour phone number in this section.

EPA Response: Permittees will not be required to provide 24-hour reporting per Standard Condition, Section III.D.12.d, for samples that exceed the effluent limitations in the General Permit since this information must be provided to EPA within 10 days after receipt of the analytical test results. However, twenty-four hour reporting will be required if any component or components of a surface discharging system fail.

Emergencies and other sudden threats to public health can be reported by dialing the National Response Center at 1-800-424-8802

Complaints or potential violations may be reported by submitting the information about the suspected violation at the following web address <http://www.epa.gov/tips/> or by phoning the EPA Region 5 Office at 1-800-621-8431 or 312-353-3000 8:30 a.m. - 4:30 p.m., weekdays.

Comment: Since this General Permit is for small systems (under 1,500 gallons per day) of domestic sewage only, the Standard Condition, Section III.12.d.ii.B., which discusses "upset" may confuse an owner/operator. Therefore, EPA should provide examples to make this Section more understandable. For instance, does this provision include power outages (that could occur for hours to days) due to weather or accidents or planned outages by a permittee's electric provider? Does the EPA only need to be notified as outlined in this Section if a noncompliant sample was obtained during the upset or as a result of the upset? What about if a pump blows and it takes several days to get the service provider on-site to fix the problem? Is that also considered on "upset"? Does this Section tie back to Section III.12.d. and require twenty-four hour reporting?

EPA Response: The upset provision comes into play if EPA brings an enforcement action against a permittee. The permittee may be able to defend itself by proving there was an upset in its disposal system due to a power outage or some other factor that is beyond the control of the permittee. In order for a permittee to invoke the upset condition, the permittee would be required to demonstrate the following, as delineated in Section III.D.19.c:

- i. An upset occurred and that the permittee can identify the cause(s) of the upset;
- ii. The permitted facility was at the time being properly operated; and
- iii. The permittee submitted notice of the upset as required in Section III.D.12.d (twenty-four hour reporting);

- iv. The permittee complied with any remedial measures required under Section III.D.4 (Duty to Mitigate).

#### **Part IV: DEFINITIONS**

Comment: The definition of "Surface Discharging Wastewater Treatment Systems" needs to be modified to ensure that a malfunctioning soil based onsite wastewater treatment system cannot be construed to constitute a surface discharging wastewater treatment system. The Department recommends the following or similar language be added to the end of the definition of "surface discharging wastewater treatment systems:" A surface discharging wastewater treatment system does not include a malfunctioning soil based onsite wastewater treatment system.

EPA Response: EPA clearly intends the General Permit to apply to wastewater treatment systems that discharge to waters of the United States or to conveyances that discharge to waters of the United States. The definition of a surface discharge is based on the actual nature of the discharge, rather than the technology classification of the treatment system, its operational status, or relative functionality. In the event a system that was designed and intended to be a subsurface discharging system begins to discharge to the surface, and that discharge enters waters of the United States or conveyances that discharge to waters of the United States, that discharge would be considered a point source discharge that must be covered by an NPDES permit, or removed. For this reason, EPA is unable to modify the definition of "Surface Discharging Wastewater Treatment Systems" to exclude discharges that result due to malfunction.