UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OCT 24 2006

REPLY TO THE ATTENTION OF
R-19J

Honorable John Shimkus
Member, United States
House of Representatives
3130 Chatham Road, Suite C
Springfield, Illinois 62704

Dear Congressman Shimkus:

Thank you for your September 26, 2006, letter expressing a warm welcome to me in my new position as Regional Administrator. I look forward to working with you and other members of the Illinois Congressional delegation.

This response will address both your September 26, 2006, letter, and your earlier letter dated September 1, 2006, regarding surface discharging private sewage disposal systems and the National Pollutant Discharge Elimination System (NPDES). Our response to the question posed in the September 1 letter is presented below. Responses to the questions posed in the September 26 letter are provided as an enclosure.

Your September 1 letter requested our opinion as to whether the definitions set forth in Illinois House Bill 5822 could, consistent with the requirements of the Clean Water Act (CWA), 33 U.S.C. § 1251 et seq., be incorporated by the Illinois Environmental Protection Agency (Illinois EPA) into its proposed general permit for surface discharging private sewage disposal systems. We have comments on the proposed legislation in three areas: (1) with regard to whether it might impact the State's NPDES jurisdiction, (2) the ambiguity of Section 4(d) of the legislation, and (3) the requirements of filing a Notice of Intent with the Illinois Department of Public Health.

Jurisdictional Issues

To operate an NPDES program, the State must have adequate authority to issue permits that meet the requirements of the CWA. See CWA Section 402(b); 33 U.S.C. § 1342(b). See also, 40 C.F.R. §123.1(g).

The effect of proposed House Bill 5822 is not entirely clear, because there are several key terms which are not defined in the legislation. Among the undefined terms are "sewage," "discharge," "navigable waters of the State," "surface waters," and "directly enters."

Without additional information about the State's interpretation of these terms, it is difficult for the United States Environmental Protection Agency (US EPA) to determine the potential impact of the legislation on jurisdiction of the Illinois EPA under the CWA.

The following two examples demonstrate the difficulty in evaluating the effect of the proposed legislation without defining these key terms.

Because pollutants which are covered by NPDES permits often travel through conduits to waters of the United States, the CWA requires that direct and indirect discharges of pollutants from point sources to waters of the United States are prohibited, except in compliance with an NPDES permit. In Sierra Club v. El Paso Gold Mines, Inc., 421 F. 3d 1133 (10th Cir. 2005), the court held that a discharge of a pollutant which traveled through a tunnel two and a half miles before it reached a navigable water would be a CWA violation unless authorized by an NPDES permit. Additional information regarding the proposed provision that a surface discharge "directly enter the navigable waters of the State or surface waters that are tributary to navigable waters of the State[,]" would be necessary to determine whether the proposed State legislation is intended to exempt from NPDES coverage discharges which US EPA has interpreted to be subject to the NPDES program.

Section 502 of the CWA, 33 U.S.C. § 1362, defines the term "navigable waters" to mean "waters of the United States, including the territorial seas." The courts have held that the terms "navigable waters" and "waters of the United States" include waters beyond those which are navigable-in-fact. For instance, a wetland adjacent to a navigable stream is clearly within US EPA's CWA jurisdiction, as set forth in United States v. Riverside Bayview Homes, Inc., 474 U.S. 121 (1985). Because the term "navigable waters of the State or surface waters that are tributary to navigable waters of the State" is not defined, it is not clear if the proposed legislation would require permit coverage for point source discharges to all waters meeting the CWA definition of "navigable waters."

Ambiguity in Section 4(d)

The proposed legislation is, in places, ambiguous. An "Off-Lot Discharging Private Sewage Disposal System" is defined as "any private sewage disposal system having a surface discharge that leaves the property or directly enters the navigable waters of the State or surface waters that are tributary to navigable waters of the State." The legislation includes the following language in Section 4(d), which would amend 225 ILCS 225/4:

> "(d) Every owner of an off lot discharging private sewage disposal systems (sic) must file a "Notice of Intent" with the Department to allow coverage of the system under the blanket National Pollutant Discharge Elimination System (NPDES) permit of the State. The owner of any private sewage disposal system that has a surface disposal system that has a surface discharge that does not leave the property or directly enter the navigable waters of the State or surface waters that are tributary to

navigable waters of the State is not required to file a Notice of Intent or meet other NPDES permit requirements."

The exemption from coverage appears to conflict with the conditions requiring a permit. The second sentence of Section 4(d), describing the conditions for an exemption, contains an "or," which may be interpreted to mean that if one of the two conditions set forth in the exemption is met, then an NPDES permit would not be required. Under this reading, the exemption is in conflict with the first sentence of this section which, based on the definition of "off-lot discharging private sewage disposal system," would require a permit if a surface discharge either leaves the property or directly enters the navigable waters of the State or surface waters that are tributary to navigable waters of the State.

The ambiguity in Section 4(d) is also fueled in part by confusion between common usage or a dictionary definition of the term "discharge" versus the technical definition of this term set forth in Section 502 of the CWA, 33 U.S.C. § 1362. When lay people use the term "discharge," it means any surfacing, release or emission, whereas the CWA definition is limited to those releases which reach waters of the United States, thereby triggering the obligation to obtain an NPDES permit. Since the term "discharge" is undefined, it is unclear if the proposed legislation uses the term in its dictionary definition or in its technical sense, as defined under the CWA.

Notice of Intent Filed with the Illinois Department of Public Health

As a subsidiary matter, Section 4(d) of the legislation provides that an owner who has an off-lot discharging private sewage disposal system must file a Notice of Intent with the Illinois Department of Public Health. While the existence of this provision does not give rise to any inconsistency with the CWA, an individual's filing of a Notice of Intent with the Department of Public Health will not relieve that individual from the requirement to file a Notice of Intent with the Illinois EPA, as set forth in Special Condition 2 of Illinois EPA's draft general permit for surface discharging private sewage disposal systems, if the person wishes to obtain an authorization to discharge under the permit.

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact Mary Canavan or Phil Hoffman, the Region 5 Congressional Liaisons.

Sincerely,

Mary A. Gade
Regional Administrator

Enclosure

Enclosure

1. What are the current standards and testing requirements relative to these systems throughout not just Region 5, but all regions in the country? I would like to get a list of those states that have an approved NPDES permitting process as a comparison to what Illinois EPA has proposed. If there are different standards for regulation of these systems on a region by region basis, why?

The Clean Water Act (CWA) and implementing regulations contain five standards or requirements that are pertinent to your first question. All five apply throughout the country. The way in which certain of the standards or requirements are expressed, combined with the fact that Section 510 of the CWA, 33 U.S.C. § 1370, allows States to establish more stringent standards than those embodied in the Act, may explain some of the variability that exists in programs for surface discharging private sewage disposal systems.

Under Section 301 of the Act, 33 U.S.C. § 1311, point source discharges of pollutants to waters of the United States are prohibited unless in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Some States have a more stringent standard for private sewage disposal systems in that they simply prohibit surface discharges from such systems altogether. Indiana (with the exception of Allen County), Wisconsin, and Michigan are examples. Section 402 of the CWA, 33 U.S.C. § 1342, provides that NPDES permits issued to point sources must include limitations based on pollution control technology or water quality standards, whichever is more stringent. When the United States Environmental Protection Agency (US EPA) has not established national technology-based limitations for a class of point sources, as is the case with respect to surface discharging private sewage disposal systems, a federal regulation requires States like Illinois to establish such limitations based on best professional judgment (BPJ). 40 C.F.R. § 122.44 (made applicable to States by 40 C.F.R. §123.25). States establish water quality standards to protect their waters for uses like fishing, swimming, and public water supply. Water quality standards vary among States. They may vary within States depending on the sensitivity of particular water bodies to different kinds of pollutants.

A federal regulation requires all NPDES permits to include representative monitoring to ensure compliance with effluent limitations. 40 C.F.R. §122.44. Another requires permits to specify the type and frequency of monitoring sufficient to yield *data* which are representative of the monitored activity (emphasis added). 40 C.F.R. § 122.48 (made applicable to States by 40 C.F.R. § 123.25). The regulations do not prescribe the precise nature of the monitoring required for any point source discharge. There is tremendous variability in the type and concentration of pollutants present in wastewater discharges across the country. There are more than 49,000 point sources authorized under NPDES individual permits and thousands more authorized under NPDES general permits. For

this reason, the regulations call on professionals within agencies like Illinois EPA to design a monitoring regimen for each individual or general permit which will allow water quality managers and citizens to know whether or not a permittee is meeting the applicable permit limitations. When limitations are expressed in terms of the concentration or mass (or numerical equivalent (e.g., pH shall remain within 6 to 9 standard units)) of a pollutant in a discharge, compliance is determined through laboratory analysis of a discharge sample. To the extent that different States may have established different monitoring requirements for different classes of point source discharges, or even the same class of point source discharges, federal regulations allow the variability as long as each monitoring regimen generates representative data with which one can determine compliance with permit effluent limitations.

Historically, States and counties implemented variable programs for private sewage disposal systems. Some overlooked private sewage disposal systems altogether. States are upgrading their programs at an increasing pace. The accompanying table compares NPDES permit requirements for surface discharging systems in different States. As indicated in the table, Arkansas, Indiana, Iowa, and Pennsylvania permits contain effluent limitations for five-day biochemical oxygen demand (BOD_5) and total suspended solids (TSS) that are more stringent than those in Illinois' draft general permit. The BOD_5 and TSS limitations in the North Carolina permit, the least stringent limitations in the table, are identical to limitations in the Illinois permit. An Ohio draft permit contains daily maximum BOD_5 and TSS limitations (15 and 18 milligrams per liter (mg/L), respectively) which are more than twice as stringent as those in the Illinois permit.

Monitoring frequencies are as follows: Arkansas: two times per year for BOD_5, TSS, fecal coliform bacteria, and pH; Indiana (Allen County): two times per year for five-day carbonaceous biochemical oxygen demand ($CBOD_5$), TSS, ammonia-nitrogen, and dissolved oxygen (DO) and four times per year for *Escherichia coli* and total residual chlorine (TRC); Iowa: two times per year for $CBOD_5$ and *Escherichia coli* and one time per year for TSS; North Carolina: one time per year for BOD_5, TSS, fecal coliform, and TRC; Pennsylvania: 12 times per year for TRC; and Virginia one time per year for BOD_5, TSS, TRC, fecal coliform or *Escherichia coli*, pH, and DO. West Virginia requires quarterly maintenance contracts in lieu of monitoring. In addition, permit coverage is issued jointly to the owner and maintenance provider to further assure compliance. The Ohio draft permit requires monitoring one time per year for $CBOD_5$, TSS, ammonia nitrogen, fecal coliform, DO, and TRC.

2. Will all surface discharging systems be required to be tested under this permit if it is not changed? It seems that all systems regardless of where the discharge flows will be required under the parameters set forth in the Illinois EPA permit request.

No. However, all persons whose discharges reach waters of the United States (see response to question 3, below) would need to obtain authorization under the permit and therefore would be subject to the conditions of the permit, including those pertaining to monitoring.

3. According to your own staff, some systems will not be subject to the IL G4 NPDES permitting process, but only if the discharge does not reach navigable waters of the United States. What standards are set that determine what a navigable waterway actually is and how will this determine which systems will require coverage under this permit?

A permit is required for all systems the discharge from which reaches "the waters of the United States."

Congress' authority to regulate water pollution comes primarily from the Commerce Clause, Article I, Section 8 of the Constitution. Further, the Supreme Court has held the term "waters of the United States," as used in the CWA, is not limited to only those waters that are navigable-in-fact. See Rapanos et ux., et al., v. United States, 126 S.Ct. at 2220, 2241; 2006 WL 1667087 (U.S.).

The jurisdiction of the CWA and the required corresponding reach of the State's jurisdiction for waters within its control is potentially impacted by the recent Supreme Court decision in Rapanos v. United States. US EPA, in coordination with the Army Corps of Engineers and the Department of Justice, is evaluating the impact of the Court's decision. In particular, US EPA and Army Corps of Engineers are developing guidance regarding implementation of the Rapanos decision. Until that guidance is issued, US EPA, Region 5 is unable to offer comment in addition to that set forth in this enclosure.

4. It has been alleged that many of the parameters in the testing requirements set forth may not be attainable and will require multiple testings at a high cost to many of my constituents. What sampling parameters are required for all surface discharging systems in the U.S.?

The Illinois permit would require surface discharges to meet effluent limitations for BOD_5, TSS, fecal coliform bacteria, residual chlorine, and pH. The BOD_5 and TSS limitations for discharges that do not enter lakes, ponds, or impoundments are identical to the effluent standards in the Illinois Private Sewage Disposal Code, 77 *Ill. Adm. Code*, section 905.110(d). Like the Code, the permit requires samples to be analyzed in accordance with the "Standard Methods for the Examination of Water and Wastewater." Our review indicates that testing costs for the five pollutants limited in the Illinois permit currently average $65 per sample (laboratories should be able to perform all analyses on a single sample). We anticipate that laboratories will provide discounts to persons who have maintenance and sampling contracts with multiple homeowners due to the relatively higher number of samples they will provide for analysis. We have not been able to verify third-party estimates of incremental costs potentially attributed to Illinois' proposed general permit; itemized breakdowns of the estimates have not been provided to us.

Responsible operation of private sewage disposal systems includes periodic maintenance. The Illinois Private Sewage Disposal Code currently requires installation contractors to provide maintenance service for two years following installation of aerobic treatment

plants. It holds the property owner responsible for maintenance thereafter. Because the overwhelming majority of owners do not have the requisite technical expertise, maintenance should be performed by trained and certified professionals. These costs should not be attributed to Illinois' draft permit. Professionals who are further trained to perform the inspection and sampling requirements in Illinois' draft permit should be able to perform these functions in conjunction with periodic maintenance visits at little additional cost.

Your letter also stated that central and southern Illinois are some of the poorest areas of the State and Nation. The US EPA is sensitive to the concerns of low income communities. CWA State Revolving Fund (SRF) programs can make low- or no-interest loans to install new systems; replace, upgrade, or modify inadequate or failing systems; and establish decentralized wastewater management programs. States such as Indiana, Iowa, and Michigan have modified their SRF programs so owners of private sewage disposal systems are eligible for these loans. Although this option is not available under Illinois SRF program rules, counties or municipalities in Illinois can seek low-interest loans and make grants to homeowners. Further assistance is available through the United States Department of Agriculture (USDA) Rural Development, the USDA Rural Utilities Service Water and Waste Programs, and the United States Department of Housing and Urban Development.

5. Based upon the threat of a lawsuit, this permitting process has been undertaken in Illinois. Will the Illinois EPA or US EPA be required to do a cost benefit analysis in order to see if the tremendous cost to my constituents if justified? If not required, will one be completed?

Illinois EPA developed the general permit to protect Illinois citizens from infectious disease and improve the quality of the State's water resources. The permit would provide a resource-efficient means by which many people who operate private sewage disposal systems can obtain the legal authorization they need to discharge in accordance with the CWA and Illinois Environmental Protection Act. Issuance of a general permit would provide a distinct benefit to the State and affected citizens compared to the alternative of requiring each discharger to obtain an individual permit.

The CWA and its implementing regulations do not require US EPA to complete a cost-benefit analysis for the issuance of a permit by an authorized State such as Illinois EPA. We do not plan to complete such an analysis. A federal regulation does require States like Illinois to take costs and benefits into consideration in the course of establishing effluent limitations based on pollution control technology (in this case limits for BOD_5 and TSS). 40 C.F.R. § 125.3 (made applicable to States by 40 C.F.R. §§ 122.44 and 123.25). In particular, the permit writer must consider the reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits. We have not reviewed the entire record on which Illinois EPA based the permit. However, as noted above, the permit includes limitations for BOD_5 and TSS which are equivalent to those already in the Illinois Private Sewage Disposal Code. We also note that information contained in US EPA's 1997 *Response to Congress on Use of*

Decentralized Wastewater Treatment Systems illustrates that private sewage treatment and disposal compares very favorably to centralized treatment at a publicly-owned treatment works in terms of costs and benefits.

We infer from your inquiry that the costs about which you are most concerned are those related to sampling and analysis under the permit. These costs were discussed above. The CWA and its implementing regulations do not require Illinois EPA to take into account the costs and benefits of monitoring requirements in the course of developing the permit. However, we believe monitoring will produce one of the principal benefits of the permit in that it will allow homeowners and the State to identify failed or underperforming surface discharging private sewage disposal systems. The experience of many communities has shown that, to protect ground and surface water, decentralized systems, whether for individual or multiple dwellings, must be properly managed from site evaluation and design through the life of the system. Inadequate operation and a lack of routine maintenance have led to system failures. Failed or underperforming systems threaten public health and water resources.

Effluent Limits in NPDES General Permits for Surface Discharging Private Sewage Disposal Systems

	Fecal Coliform		TSS		BOD5		Total Residual Chlorine		Ammonia	DO	Monitoring Frequency
	Monthly Avg #/100 ml	Daily Max #/100 ml	Monthly Avg mg/l	Daily Max mg/l	Monthly Avg mg/l	Daily Max mg/l	Min mg/l	Max mg/l	Nitrogen mg/l	Min mg/l	(X per year)
Arkansas	200	400	20	30	20	30	N/A	N/A	N/A	N/A	2
Indiana (Allen Co.)	N/A	E. coli: 235	N/A	18	N/A	CBOD5: 15	0.5 after contact	0.06 after discharge	2.0	winter: 5; summer: variable by temp	2 for CBOD, TSS, N, and DO; 4x yr for E. coli and TRC
Iowa	E. coli: 235 for A1, A2, A3, or C waters; otherwise: N/A	E. coli: 235 for A1, A2, A3, or C waters; otherwise: N/A	25	25	CBOD5: 25	CBOD5: 25	N/A	N/A	N/A	N/A	2 for CBOD and E. coli; 1x yr for TSS
North Carolina	200	400	30	45	30	45	N/A	N/A	N/A	N/A	1
Pennsylvania	200	N/A	10	20	10	20	0.3	0.5	N/A	N/A	12 for TRC; all other parameters only upon request
Virginia	N/A	200	N/A	30	N/A	30	1.0 after contact; 1.0 after discharge	0.1 after discharge; 2.0 after discharge	N/A	5 if 7Q10 < 0.2	1
West Virginia	200	400 (or 500 "instantaneous maximum")	30	60 (or 75 inst max)	30, or 5	60 (75 inst max) 10 (12.5 inst max)	0.0	0.057 (or 0.07 "inst max)	N/A	N/A	N/A