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March 10, 2010

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MAR 12 2010

ENVIRONMENTAL QUALITY BOARD


Environmental Quality Board
P O Box 8477
Harrisburg, PA 17105-8477

Re: 25 PA Code Chapter 92a
Comment

Dear Environmental Quality Board:

Enclosed for your review and consideration are comments on the 25 PA Code Chapter 92a proposed rulemaking.

Very truly yours,

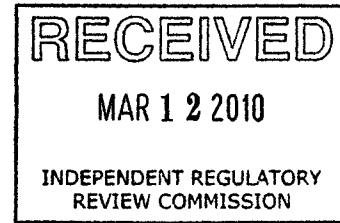

John J. Brossman, III, PE
Manager/Engineer

RECEIVED
MAR 12 2010
INDEPENDENT REGULATORY
REVIEW COMMISSION

JJB/jmh

Enclosure

2819



General Observations and Comments

1. Difficulty in Understanding the Basis for the Proposed Rulemaking

The preamble states that:

The primary goal of the proposed rulemaking is to reorganize the existing NPDES regulations outlined in Chapter 92 so that the organization of the regulations is consistent with the organization of the companion Federal regulations in 40 CFR Part 122. By aligning the State and Federal regulations, it becomes clear where the regulations are identical and where they differ. This will help both Department staff and the regulated community understand the requirements of the program, and where additional or more stringent provisions apply in this Commonwealth. Every effort has been made to revert to the baseline Federal requirements except where additional or more stringent requirements in Chapter 92 were clear, well understood, and have an appropriate basis in The Clean Streams Law or other appropriate basis.

and

Permittees and other members of the regulated community will find it easier to determine if Pennsylvania has additional requirements compared to Federal requirements. A supplemental benefit is that turnover in permit engineers and writers should be less disruptive, since new staff should find it easier to understand the streamlined regulatory requirements.

Other than observing that certain federal regulations have been incorporated by reference in Annex A, it is impossible to determine the extent to which the proposed regulation language actually mirrors federal requirements without actually having the specific federal regulation language at hand for comparison. The preamble offers little insight to assist anyone in this regard. The Department should have to at least identified which federal regulation sections correspond to specific non-incorporated federal provisions that are contained in Annex A and how to access those federal regulations.

Equally disconcerting is the lack of any cross-walk table either in the preamble, or mention of how to obtain a cross-walk, to show which sections of Annex A correspond to the which sections of the existing Chapter 92 regulations.

As a result, it requires a significant and time-consuming effort to actually understand the origin and basis of the various provisions proposed in Annex A. If and when the regulation becomes final, there will be even less opportunity for Department staff or the regulated community to understand the basis for the regulation.

2. Ignoring Some Potential Major Impacts of the Proposed Rulemaking

In various sections of the preamble, the Department has portrayed these changes as having minimal impact on the regulated community. For example:

Superficially, Chapter 92a is not substantially different from Chapter 92 in most areas, but the Board expects that the reorganization of the NPDES regulation will have a substantive positive effect on Pennsylvania's NPDES program.

and

No new requirements are proposed in this proposed rulemaking that would require general increases in personnel complement, skills or certification..

and

The proposed rulemaking addresses wastewater treatment facilities, including industrial wastewater treatment facilities, POTWs, and other facilities that treat sanitary wastewater. The treatment requirements of the NPDES regulation affect operational costs to some extent, but the proposed rulemaking does not include any new broad-based treatment requirements that would apply to most facilities. The compliance costs of the proposed rulemaking for most facilities is limited to the revised application and annual fees.

To the contrary, certain provisions of the proposed regulation (particularly section 92a.47 Sewage Permit) could pose major technical and economic challenges, and could create major compliance and enforcement problems, for many public and privately-owned sewage treatment systems across the state [as discussed under our more specific comments below for 92a.47].

For example:

- The Department has arbitrarily decided to drop key "variance" provisions to EPA's Secondary Treatment regulation, 40 CFR Part 133 that allow for modification of effluent requirements based on: a) systems with combined sewers; b) systems with certain industrial waste loadings; c) systems using waste stabilization ponds; and d) systems with less concentrated influent wastewater.
- The Department has also arbitrarily created a set of "tertiary treatment" effluent requirements for some situations that would be, in some respects, even more stringent than what is being required of significant sewage dischargers in the Chesapeake Bay watershed.

There is no indication in the preamble that the Department has actually conducted a detailed technical and economical analysis of these potential consequences in order to support these proposed changes and the abovementioned preamble statements.

3. The Department's Basis for Proposed Permitting and Annual Fee Schedules Is Contrary to State Law and Fundamentally Flawed

The Department's Fee Analysis Form** shows that some 56 full-time regional and central office staff are engaged in NPDES permit review and issuance. It also mentions that some 5,000 individual NPDES permits and 5,000 general permit coverages are issued annually.

The Fee Analysis Form goes on to describe the efforts of some 75 compliance and water quality specialists, 12 administrative and training staff and 11 other specialty staff provide support primarily for monitoring, compliance evaluation and enforcement activities associated with NPDES permits.

Pennsylvania's Clean Streams Law states that:

SECTION 6. APPLICATION AND PERMIT FEES

The department is hereby authorized to charge and collect from persons and municipalities in accordance with its rules and regulations reasonable filing fees for applications filed and for permits issued.

This is the only provision in the law authorizing the Department to impose fees for sewage, industrial wastewater and (possibly) stormwater permitting. "Reasonable" is not defined, but the law has always intended that they be used to help offset the cost of permit application review and permit issuance.

Such fees are not authorized to help offset the cost of monitoring, compliance evaluation, administration and training and enforcement activities associated with the NPDES program.

The preamble states that:

The annual fees are designed to cover the lesser ongoing costs associated with maintaining the permit coverage, including the cost of compliance inspections, sampling and reports.

Even if annual fees to cover these activities could be legally justified under the Clean Streams Law, the Department employs the services of 98 staff to carry out such efforts. These staff can only do so many inspection, report reviews, facility sampling and evaluations, etc, so in reality only a small fraction of permitted NPDES dischargers get this kind of personalized, detailed attention on an annual basis. So, for the Department to imply that the entire universe of NPDES dischargers receives such level of attention is a fundamentally flawed reasoning. In other words, the vast majority of permitted NPDES dischargers will see no direct, beneficial return from their annual fees submitted to the Department.

** None of this information, or information on how to obtain it, appears in the preamble.

4. Specific Observations and Comments

92a.2 Definitions - As noted, there are several new definitions, most of which are helpful in understanding the regulations. Some, however, are problematic:

Expanding facility or activity—Any expansion, modification, process change, or other change to an existing facility or activity which will result in an increased discharge of wastewater flow, or an increased loading of pollutants.

As used in reference to the proposed tertiary treatment standard, this definition is far too broad. It does not reflect the magnitude and environmental impact of the facility change. It also could prevent POTWs from requesting and obtaining capacity re-rating for the purposes of Ch. 94 wasteload management regulations.

Immediate—As soon as possible, but not to exceed 4 hours.

This term apparently only relates to the provisions in 92a.41(b) that requires all permits to include a condition requiring:

(b) The immediate notification requirements of § 91.33 (relating to incidents causing or threatening pollution) supersede the reporting requirements of 40 CFR 122.41 (l)(6).

Four (4) hours seems like an extremely short time to require notification of the Department for such a wide variety of potential incidents. We suggest that the Department should reconsider how best to define "immediate" and to actually incorporate it into 92a.41(b) so as to avoid any mis-use of this term for other purposes.

Significant biological treatment—The use of an aerobic or anaerobic biological treatment process in a treatment works to consistently achieve a 30-day average of at least 65% removal of BOD₅.

This term apparently only is used in 92a.47 Sewage Permit

(a) Sewage, except that discharged from a CSO that is in compliance with subsection (d), shall be given a minimum of secondary treatment. Secondary treatment for sewage is that treatment that includes significant biological treatment and accomplishes the following:

Since 92a.47(a) effectively defines "significant biological treatment", there is no obvious need to redefine it elsewhere.

TMDL—Total Maximum Daily Load—The sum of individual waste load allocations for point sources, load allocations for nonpoint sources and natural quality and a margin of safety expressed in terms of mass per time, toxicity or other appropriate measures.

This term is defined in regulation Chapter 96, along with LA and WLA. For clarity, we suggest the Department either include all three definitions in 92a or simply refer to Chapter 96.

Treatment works—Any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement the State and Federal Acts, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment, and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and any works, including site acquisition of the land that will be an integral part of the treatment process (including land used for the storage of treated wastewater in land treatment systems prior to land application) or is used for ultimate disposal of residues resulting from the treatment.

This is a commonly used term in the water quality management profession and is found in several places in 92a, but it is unclear as to why it merits any definition, let alone something as detailed and full of such qualifying language (see underlined wording). We suggest deleting it or at least removing the underlined qualifying language.

It should also be noted that the phrase "used for ultimate disposal of residues resulting from the treatment" could include landfills, abandoned mines, farm fields and sale commercial product.

92a.4 Exclusions [from NPDES permit requirements] - as noted in the preamble, *Current exclusions in § 92.4(a)(4) regarding oil and gas activities and conditions relating to indirect discharges in § 92.4(a)(6) will be deleted from the exclusion provisions since they are not included in the Federal exclusion regulation.*

It appears that this could have some significant impact on certain entities, but no explanation for this change is provided, nor is there any explanation provided as to the practical effect of the change on the affected entities or the Department. This should be addressed in the final rulemaking proposal.

92a.5 Prohibitions [of certain discharges] - as noted in the preamble, *Existing § 92.73 outlines situations where an NPDES permit may not be issued. All but one of the prohibitions are identical to or closely parallel the Federal prohibitions set forth in 40 CFR 122.4. The prohibition which has no Federal counterpart relates to sanitary sewer overflows, § 92.73(8). This provision provides that no permit may be issued for a sanitary sewer overflow, except as provided for in the Federal regulations. This provision has been transferred to § 92a.5(b), except that the qualifier providing for exceptions as provided for in Federal regulations has been deleted.*

It is unclear as to why this particular language has been dropped, since it was in the existing regulations and apparently nothing has changed with the federal regulations. There must have been some reason why it was put in the existing regulation, so why take it out now?

92a.12 Treatment Requirements - the preamble states that *Existing § 92.8a(c) provides, in part, that whenever a point of projected withdrawal for a new potable water supply not previously considered is identified by "an update to the State Water plan or a river basin commission plan, or by the application for a water allocation permit from the Department," the Department will notify a discharger of total dissolved solids, nitrite-nitrate nitrogen and fluoride of more stringent effluent limitation needed to protect the point of withdrawal. The quoted language is deleted and replaced with simply "the Department."*

Actually, the Department has deleted reference to the specific pollutant parameters mentioned, and now the regulation could be applied to any parameter. This is a significant change and it is not clear what the consequences will be for dischargers, water suppliers and the Department. We suggest a re-examination of the proposed change and clarification in the final rulemaking proposal.

92a.26 New or increased discharges, or change of waste streams - the preamble states that *The appropriate action of a permittee whose wastewater or process change will result in a change in the pollution profile of the treated effluent is clarified. Increases in discharges of permitted pollutants that have no potential to exceed effluent limitations may be initiated without prior approval of the Department, but must be reported within 60 days. Any change in the pollution profile of the effluent that may exceed effluent limitations, or require new effluent limitations, requires prior notification of the Department. The Department determines whether to require a new application from the permittee, depending on the nature of the process change. Under the existing regulation, a new application is required automatically under some conditions. The revised language in proposed subsection (a) allows more flexibility, and limits the burden on both the permittee and the Department by requiring a new application only for the reasons specified in this section.*

While the actual change seems more flexible, the new requirement to report situations that have no potential to exceed effluent limitations within 60 days is certainly not more flexible. Even more importantly, there is no indication as to when the 60 day period commences. Is it after the change has occurred, before, somewhere in between?

92a.28. Application fees - the preamble notes that *The Commonwealth has long subsidized the costs of administering the NPDES program and the associated regulation of point source discharges of treated wastewater, but this is no longer financially feasible or environmentally appropriate. The proposed fee structure will cover only the Commonwealth's share of the cost of administering the NPDES permit program (about 40% of the total cost, with the other 60% covered by Federal grant). The proposed fees are still only a minor cost element compared to the cost of operating a sewage or industrial wastewater treatment facility. The artificially low fees that have been charged have been increasingly at odds with the Department's emphasis on Pollution Prevention and nondischarge alternatives. The proposed fee structure will better align the revenue stream with the true cost of point source discharges to surface waters, from both management and environmental standpoints. The sliding-scale fee structure assures that smaller facilities, which may be more financially constrained and also have a lower potential environmental impact, are assessed the lowest fees.*

First, as pointed out in General Comment 3 above, we disagree with the premise under the Clean Streams Law of passing on the full cost to the Commonwealth for administering the NPDES permitting program (see general comment 3 above). The fees proposed do not seem to fit the notion of a "reasonable filing fee".

Second, the Department's Fee Analysis Form does not clearly establish how the actual proposed application fee schedule was developed. It is not clear if these fees represent only the cost to review permits or if other costs are included.

Third, for the past 100 + years, the Commonwealth's day-to-day water pollution control regulatory program has been substantially supported by general fund revenues. The citizens of PA are the primary beneficiaries of this program and there is no reason why this program should not continue to be substantially supported by general fund revenues.

92a.29 Sewage Discharges [additional application requirements]- the preamble does not address this section; however we note that a new subsection (b)(5) would require CSO dischargers to include an update on progress made with long-term control plan implementation. We suggest at least mentioning this in the final rulemaking proposal.

92a.38 Department Action on NPDES Permit Applications - as noted in the preamble, ... *the Department would now consider Local and County Comprehensive Plans and zoning ordinances when reviewing permit applications, which is not specifically provided for in the existing Chapter 92. This proposed provision is designed to better assure an integrated approach to water resources management. No new specific requirement applies to applicants, but applicants should be motivated to consider how their proposed discharge fits with all applicable plans and ordinances before submitting an application to the Department.*

The preamble does not mention that this provision has been part of the Department's longstanding policy on ensuring consistency with local land use planning and zoning for most kinds of permits. It is unclear as to how this provision relates to an "integrated approach to water resources management".

92a.41. Conditions applicable to all permits - the preamble states that *Existing § 92.51(6) provides "that the discharger may not discharge floating materials, oil, grease, scum, foam, sheen and substances which produce color, taste, turbidity, or settle to form deposits in concentrations or amounts sufficient to be, or creating a danger of being, inimical to the water uses to be protected or to human, animal, plant, or aquatic life."* *This language paraphrases the requirements of the general water quality criteria in § 93.6 (relating to general water quality criteria). The qualifier that refers to "amounts sufficient to be□.□.□.□inimical to the water uses□.□.□." is thought to be too cryptic and nebulous to be useful, with the result that even substantial visual or odiferous indicators of problems with effluent quality may be overlooked during an inspection. An unqualified prohibition on most of these listed conditions is appropriate, but minor, transient foaming in effluent is not necessarily an indication of problems with the treatment process. The revised provision prohibits all of these conditions except for foam. "Floating materials" refers to floating solid materials, and foaming would still be considered an unacceptable condition if the foaming is visually objectionable, or persists for any*

distance away from the immediate vicinity of the discharge. The language of § 92.51(6) is proposed to be clarified in subsection (c).

Removing the qualifying language "*amounts sufficient to be inimical to the water uses*" because it is *thought to be too cryptic and nebulous to be useful* puts the Department in the position of not being able to decide on the significance of such discharge situations. Color, for instance, has a water quality criterion in Chapter 93 and effluent limits can be derived for that parameter. Under this revision, there would be no allowable discharge of color. "Taste" is a common characteristic of almost all discharges. This revision should be reconsidered.

While we understand the basis for not including foam in the revised regulation, Department field staff will still occasionally encounter foaming conditions downstream of some discharges and, absent any mention of foam in the regulation, will perhaps be at a disadvantage in viewing situations consistently. Therefore, if the underlined preamble language is what is intended, then perhaps some clarification needs to be provided in the regulation itself.

92a.47 Sewage Permit [actually discharge requirements] -

Revised Secondary Treatment Standards: the preamble states that ... *the basic requirements of the STS would be unchanged and consistent between the Federal and State requirements. Certain exemptions and adjustments provided for in 40 CFR Part 133 would no longer be applicable, because these exemptions and adjustments are outdated and have been misinterpreted in some cases. The STS is 40 years old, and represents a bare bones standard of treatment for sewage treatment facilities. Any competent sewage treatment operation can readily achieve the STS. Under the proposed rulemaking, all discharges of treated sewage would be required to meet the STS.*

Two other recurring issues are resolved with the proposed STS:

1. *Permit conditions that assure effective disinfection of treated sewage, and implement the water quality criteria for fecal coliform bacteria in Chapter 93 (relating to water quality standards), are standardized.*

2. *Only facilities that are defined as Publicly-owned Treatment Works (POTWs) are required to meet the 85% pollutant removal efficiency for CBOD₅ and TSS. Certain industrial facilities have very weak influent and, in these cases, removal efficiency is not a valid measure of treatment effectiveness.*

First, we are concerned with the apparent lack of information or data to support these changes. At least nothing has been included in the preamble, other than some rather cavalier statements, such as "*The STS is 40 years old, and represents a bare bones standard of treatment for sewage treatment facilities. Any competent sewage treatment operation can readily achieve the STS.*"

While the STS may have first been promulgated in the early 1970s, it has been reviewed and modified several times since then (the most recent being 1989). It is a national standard that has held up to scrutiny for many years.

Second, the Department has arbitrarily decided to drop key "variance" provisions to EPA's Secondary Treatment regulation, 40 CFR Part 133 that allow for modification of effluent requirements based on: a) systems with combined sewers; b) systems with certain industrial waste loadings; c) systems using waste stabilization ponds; and d) systems with less concentrated influent wastewater. These are national standards and there were good reasons for EPA to allow for such variances in the STS. The Department's only justification for removing them is that they "*are outdated and have been misinterpreted in a some cases.*" It is not clear what "outdated" refers to, and just because there have been some misinterpretations does not mean these should be deleted.

Third, the Department has arbitrarily changed the effluent standards relating to "effective disinfection" to read

4. From May through September, a monthly average discharge limitation for fecal coliform of 200/100 mL as a geometric mean and an instantaneous maximum effluent limitation not greater than 1,000/100 mL [NOTE: the phrase "in more than 10% of the samples tested" has been removed].

The revisions to 4. are more stringent than current requirements and increase the potential for violations to occur, regardless of their significance. No rationale has been presented for this change.

and

5. From October through April, a monthly average discharge limitation for fecal coliform of 2000/100 mL as a geometric mean and an instantaneous maximum effluent limitation not greater than 10,000/100 mL.

While 5. may represent a good approach for wintertime limits, no rationale has been presented for the numbers. As with 4., there is no leeway provided from the instantaneous maximum.

Finally, we also note that a new STS provision has been added for Total Residual Chlorine (TRC) to read

(8) Compliance with § 92a.48 (b) (relating to industrial waste permit) if chlorine is used.

It is unclear as to why an industrial waste requirement (e.g. 0.5 mg/l) is to be imposed on sewage discharges, but no rationale has been provided.

92a.47(b) New Tertiary Treatment Standards - the Department has arbitrarily created a set of "tertiary treatment" effluent requirements for some discharge situations to impaired or antidegradation waters, as follows:

(b) Sewage, except that discharged from a CSO that is in compliance with subsection (d), or that discharged from a small flow treatment facility, shall be given a minimum of tertiary treatment if either of the following apply:

(1) The discharge from a new source, new discharger, or expanding facility or activity is to a surface water classified as a High Quality Water or an Exceptional Value Water under Chapter 93 (relating to water quality standards), or to a surface water or location for which the first intersected perennial stream is classified as a High Quality Water or an Exceptional Value Water.

(2) The discharge from a facility or activity affects surface waters of this Commonwealth not achieving water quality standards, with the impairment attributed at least partially to point source discharges of treated sewage.

(c) Tertiary treatment for sewage is that treatment that meets all of the requirements of secondary treatment, and also accomplishes the following:

(1) Monthly average discharge limitation for CBOD₅ and TSS may not exceed 10 milligrams per liter.

(2) Monthly average discharge limitation for total nitrogen may not exceed 8 milligrams per liter.

(3) Monthly average discharge limitation for ammonia nitrogen may not exceed 3 milligrams per liter.

(4) Monthly average discharge limitation for total phosphorus may not exceed 1 milligram per liter.

(5) Dissolved oxygen must be 6 milligrams per liter or greater at all times.

(6) Seasonal modifiers may not be applied for tertiary treatment.

NOTE: The preamble discussion for these changes is included as Attachment 1 due to its length.

First, it is unclear why dischargers covered under (b)(1) should be subjected to these tertiary treatment standards. The Department already has a comprehensive regulation and policy guidance on how to address discharges to HQ and EV streams on a case-by-case basis, which presumably would require even stricter effluent limits than tertiary treatment. Why is that approach not adequate to address such situations?

Second, regarding (b)(2), the Department has many existing regulations and policies that determine how to establish effluent limits to protect or improve impaired waters. What is missing from this process that justifies an arbitrary level of treatment that may or may not address the impairment problem?

The provisions in (b)(2) regarding new or expanding discharges to impaired waters are potentially quite onerous due to:

- the proposed definition of "expanding facility or activity"
- the lack of definition as to what constitutes "impairment"
- the lack of definition of what is meant by "at least partially due to point source discharges of sewage"

If this regulation were to be finalized as-is it would be subject to widely varying interpretation and implementation by Department staff.

Third, it should be noted that the effluent requirements in (c) would, in some respects, be even more stringent than what is being required of significant sewage dischargers in the Chesapeake Bay watershed. Such Bay watershed dischargers must meet annualized "cap loads" (lbs/yr) for total nitrogen and total phosphorus, based on achieving a level of 6 mg/l N and 0.8 mg/l P at design flow. That approach inherently provides for seasonal variations in N and P effluent concentrations (not an uncommon phenomenon) above or below those numbers. The proposed limits in (c) allow for no seasonal variability.

The preamble characterizes the new requirements as: *These effluent treatment requirements are sufficiently stringent to require advanced treatment as compared to secondary treatment for sewage, but are not state-of-the-art*. They may not be "limit of technology" but they are "state of the art" insofar as biological nutrient reduction (BNR) treatment is concerned, and they are not much different than the abovementioned Bay requirements. A recent study of the cost for the 184 significant municipal Bay dischargers to achieve their annual "cap loads" indicates that would take some \$1.4 billion in capital upgrades. No cost estimate has been offered by the Department for achieving these tertiary treatment standards.

Fourth, if this regulation were to be finalized, it would have a major negative impact on the ability of dischargers to pursue nutrient reduction credit trading, as currently being encouraged by the Department for the Bay watershed dischargers.

Finally, the Department has provided no scientific analysis as to the general water quality improvement that would accrue from imposing these tertiary treatment standards for HQ, EV or impaired waters.

92a.62. Annual fees - the preamble states that *The proposed [permit and annual] fees are still only a minor cost element compared to the cost of operating a sewage or industrial wastewater treatment facility. The artificially low fees that have been charged have been increasingly at odds with the Department's emphasis on Pollution Prevention and nondischarge alternatives. The proposed fee structure will better align the revenue stream with the true cost of point source discharges to surface waters, from both management and environmental standpoints.*

First, as pointed out under General Comment 3 above, we disagree with the basic legality, under the Clean Streams Law, of passing on any of the cost to the Commonwealth for administering the monitoring, administration, training, inspection and enforcement aspects of the NPDES program (see general comment 3 above).

Second, as 92a.28 and 92a.62 are written, it appears that NPDES dischargers will need to pay:

An initial permit application fee

Five annual fees (at each yearly anniversary of permit issuance)

A permit renewal fee (6 months prior to expiration)

Is that what is intended?

Finally, we are unable to understand the relevance of the underlined statements in the above preamble language to the notion of imposing an annual fee.

See other related comments under General Comment 3 above regarding lack of derived benefit to most dischargers.

92a.82. Public notice of permit applications and draft permits - the preamble states that these requirements are being reorganized for clarity. We note, however, that one important component of draft permit public notice has disappeared from the existing regulation 92.61(a) with no explanation, specifically:

(6) The location of the nearest downstream potable water supply considered in establishing proposed effluent limitations under this title, or a finding that no potable water supply will be affected by the proposed discharge.

ATTACHMENT 1

PREAMBLE DESCRIPTION OF PROPOSED TERTIARY TREATMENT STANDARD FOR SEWAGE DISCHARGES

Subsections (b) and (c) outline a new technology-based tertiary treatment standard (TTS) for discharges of treated sewage. The TTS would apply to all new or expanding discharges of treated sewage to impaired waters where the impairment has been attributed to discharges of treated sewage, or to surface water designated as a High Quality or an Exceptional Value (antidegradation) water. Existing facilities would not be affected until such time as the permittee proposes to expand the facility. The requirement to implement the TTS would be triggered by a proposed expansion of an existing facility that would result either in an increased hydraulic capacity of the facility, or an increase in loading of any pollutant of concern to the affected surface water, or both.

In all cases for point sources, the more stringent of the applicable technology-based effluent limit and the water quality-based effluent limit (WQBEL) is applied. For discharges to impaired or antidegradation waters, the WQBEL is expected to be the governing factor in determining the appropriate effluent limits. However, technology-based requirements should be developed and applied independent of water quality-based requirements. The TTS is a more stringent treatment standard than the secondary treatment standard, and a more stringent technology-based treatment standard is appropriate in water quality-limited surface water segments for several reasons:

- In order to reduce possible disparities in treatment requirements amongst multiple point sources.*
- An adequate WQBEL may not be available when it is needed (for example, a sewage treatment plant is proposed for expansion, but the TMDL has not yet been scheduled or completed). Applying a more stringent technology-based standard will minimize possible distortions in the planning and design process that may be introduced when the WQBEL is inadequate or unavailable. The facility may be grossly under-designed, necessitating a costly overhaul of the facility. Applying the TTS in scenarios where advanced treatment clearly will be required will minimize this risk, without increasing the risk that the facility may be over-designed.*
- The relationship between the source and an impairment may be reliable, but it may not be effectively tied to any one or more pollutants. An impairment initially attributed to nutrient enrichment may, upon further study or with more data, subsequently be attributed to organic enrichment. Or an impairment that really is due to nutrient enrichment, and that is mitigated with effective nutrient controls, may simply be replaced by an impairment that is attributable to organic enrichment. By assuring a balanced approach to all likely pollutants of concern, vulnerabilities in the WQBEL process can be minimized without undue burden on the permittee.*

In addition to all the requirements of the STS, the proposed TTS provides that:

- 1. Monthly average CBOD₅ and TSS may not exceed 10 mg/L.*
- 2. Monthly average total nitrogen may not exceed 8 mg/L.*
- 3. Monthly average ammonia nitrogen may not exceed 3 mg/L.*
- 4. Monthly average total phosphorus may not exceed 1 mg/L.*
- 5. Dissolved oxygen must be 6 mg/L or greater at all times.*
- 6. Seasonal modifiers may not be applied for tertiary treatment.*

These effluent treatment requirements are sufficiently stringent to require advanced treatment as compared to secondary treatment for sewage, but are not state-of-the-art. In impaired or antidegradation waters, treatment at least this stringent will be required.