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FEB - 5 2010

February 3, 2010

ENVIRONMENTAL QUALITY BOARD

Environmental Quality Board
Post Office Box 8477
Harrisburg, PA 17105-8477

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FEB - 5 2010

Re: Proposed Rulemaking—Chapter 92

ENVIRONMENTAL QUALITY BOARD

Gentlemen:

Enclosed please find comments regarding the proposed rulemaking for your consideration.

Very Truly Yours,


Randall G. Hurst

INDEPENDENT REGULATORY
REVIEW COMMISSION

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COMMENTS ON PROPOSED RULEMAKING—2010 FEB 12 PM 1:37
CHAPTER 95, WASTEWATER TREATMENT REQUIREMENTS

INDEPENDENT REGULATORY
REVIEW COMMISSION

Need for the Regulations Has Not Been Established.

Currently, the Department has water quality standards for TDS, chlorides, sulfates, iron, and osmotic pressure. If effluent limits can be calculated to protect water quality using these criteria, what purpose is served by creating technology-based effluent limits (especially when—as discussed below—the proposed limits are not based on technology at all)? If water quality standards for barium and strontium are needed, they can be developed using the development methodology already established by the Department. Since water quality can be fully protected using water quality-based discharge limits, the proposed rules appear to serve no purpose for environmental protection.

Scientific/Legal Basis of the Proposed Limits

The proposed limits are clearly not Best Professional Judgment limits, since by regulation, such limits must be imposed on a case-by-case evaluation of each discharger. (See, e.g., § 402.(a)(1)(B) of the Clean Water Act, and 40 CFR §§ 122.44(a)(1) and 125.3(a)(2)(i)(B) & (a)(2)(iv)(B).) Therefore, the proposed regulations appear to be intended to create a new set of technology-based effluent limits (TBELs). Specifically, the proposed standards for non-POTWs would have to be based “Best Practicable Control Technology Currently Available” as defined at § 304(b) of the Clean Water Act (see also § 301(b)(1)(A) and 40 CFR § 125.3, applicable to State-issued permits under 40 CFR § 123.25(a)(36)) and for POTWs the limits would have to be Best Practicable Waste Treatment Technology (see 40 CFR § 125.3(a)(1)(ii)). By definition and law (see § 304(b) of the Clean Water Act and 40 CFR § 125.3(c) & (d)), such limits are to be based on an evaluation of available technology, cost, and other specific factors. However, according to the documentation provided by the Department, none of the required evaluations under these statutory requirements was undertaken. Instead, the Department simply chose numbers arbitrarily, apparently based on the existing water quality criteria in Chapter 93, and proposes to call them technology-based without a shred of evidence in support of that claim. There is not only no technological basis for the proposed limits, there is no legal basis either.

The Department is not authorized to promulgate effluent limits to be imposed on an entire class of public and private dischargers without undertaking an analysis to establish some sort of

basis for the limits, either for water quality protection or to establish appropriate technology-based limits. The Department failed to undertake either evaluation and proposes to establish onerous (and in some cases impossible—see discussion below) and expensive discharge limits based entirely on figures simply snatched from thin air. This is not only bad science, it is contrary to the provisions of applicable law.

This issue is of particular concern to POTWs. Many existing dischargers have reported that they cannot meet the proposed TDS or chloride limits now, while treating only domestic and commercial sewage. No treatment technology in use at POTWs is designed to remove TDS or chlorides to any measurable extent, nor is any such technology economically available. In effect, by not complying with the applicable regulations, *DEP has created a situation where it intends to establish "technology-based" limits that cannot be met using any existing or readily available technology.* This is exactly the opposite of technology-based effluent limits.

In addition to being contrary to applicable law, the proposed regulation would simply make it impossible for many POTWs to accept hydrofracturing ("frack") wastewater, possibly crippling the emerging gas industry in Pennsylvania (and its enormous potential economic benefits to the Commonwealth). Moreover, the proposed regulations could also affect other industrial wastes, making it impossible for some industrial users to locate—or remain—in Pennsylvania. The Department should make an effort to comply with the law and develop limits based on technology so that any limits imposed are capable of being achieved. If technology-based limits are less stringent than water quality-based limits, then the latter would apply to that particular discharge. However, it is unreasonable as well as unlawful to subject every POTW in the Commonwealth to the proposed arbitrary discharge limits.

Finally, under this heading, is the matter of the proposed limits for barium and strontium. What is the environmental protection basis for the proposed limits of 10 mg/L? What is the technical basis? These limits appear to have no basis whatsoever. As noted above, if they are of concern for water quality, then appropriate water quality standards (criteria linked with designated uses) should be developed. If they are technology-based, what technologies were evaluated to arrive at the proposed limits, and are those technologies present at, or readily available to, POTWs?

Vagueness.

Several of the provisions as drafted are too vague to understand or are capable of multiple interpretations, making compliance either impossible or subject to arbitrary interpretation by Department personnel, leading to inequity and mass confusion both within DEP and the regulated community. These provisions include:

1. The “trigger” criterion for implementing the requirements (§ 95.10(a)) is “a new discharge of High-TDS wastewater [which is defined as] a TDS concentration over 2,000 mg/L or a TDS loading over 100,000 pounds per day.” Over what time period (duration) is this to be measured? Is one hour of discharge meeting the requirement sufficient? One day? A month? Is it an average or a maximum, and if the latter, over what period of time?
2. Similarly, how frequently must the criterion be met to trigger the rule? One time? Twice in a year? What if the exceedance only occurs one time during a year, or several times in a year, but never in prior years? In that case, how does the POTW or the Department decide when the criterion will be met so that NPDES permit revisions will be necessary for future years?
3. What is an “additional, expanded, or increased discharge”? None of these critically important terms are defined. If a POTW currently exceeds the limits, but this is an existing discharge, then it appears that the regulatory limits would not apply. However, if that same treatment plant, without adding any new sewer customers or modifying the treatment plant, experiences an increase in flow compared to prior years (without changing the character of the effluent), such as might occur with increased precipitation (and resultant inflow/infiltration) in a particular year, is this an “increased discharge” that will trigger the rule? If not, then how does one determine when an “increased discharge” occurs? Similar concerns surround the other terms “expanded” and “additional.”
4. The exemption for Federal Categorical Direct Dischargers in subparagraph 95.10(b)(6) is ambiguous. It states that an industrial discharger subject to EPA ELGs for direct dischargers for “TDS, Chlorides or Sulfates” is exempt from the effluent standards. The use of the word “or” implies that if only one of these standards applies, then none of the standards in this section applies. This would leave such

industrial dischargers exempt from all regulations for the other pollutants. That is, an industry subject to BAT for TDS would have no regulation whatsoever for chlorides and sulfates (except as they might be a component of TDS). Has the Department reviewed the existing ELGs to determine what Categories of direct discharger might be exempt under this rule?

5. The introduction to paragraph 95.10(c) and the provision at 95.10(c)(1) are vague and appear to be contradictory to the purpose of the proposed regulation (control of high TDS in industrial waste discharges). Specifically, both provide that the provisions of the section apply to “new discharges of wastewaters resulting from fracturing [and other operations]” and that there “may be no discharge of wastewater . . . from any direct source or site or fracturing, production, field exploration, drilling, or well completion” Use of the term “wastewaters” instead of “industrial waste” implies that this section applies to domestic sewage as well as the production wastes from the oil and gas activities, since these “result from” the activities.

In other words, if a housing facility to accommodate workers is constructed in an area, treatment and discharge of normal domestic sewage would be prohibited simply because the sanitary sewage (“wastewater”) source is located at a “site” where the activity occurs. If this is not the intent of the section, clarification and the use of the correct terminology is in order.

6. In addition, the following questions arise under section 95.10(c):
 - a. What is a “direct source”? (Are there any other kinds of “sources”?)
 - b. Is this section intended to prohibit the construction of frack water treatment facilities in the vicinity of wells? If so, why? Wouldn't treatment and discharge at the site, or treatment and hauling of the treated water to a POTW, be preferable to moving scores of tanker truckloads of raw waste over rural roads to distant treatment plants?
 - c. What does the term “site of . . . production” mean? Will this rule prohibit treatment of high TDS wastes at gas processing facilities that are remote from the gas wells themselves? Again, if so, why?
 - d. Paragraph (c)(1) seems to contradict paragraphs (c)(2) and (5), which would allow discharges from CWT facilities, even if they are located near the wells,

as long as they obtained an NPDES permit. So, in planning for treatment of wastes, which paragraph should be relied on: the one prohibiting all discharges, or the one that will allow the owner to construct a waste treatment facility and apply for an NPDES permit?

7. How would a POTW determine that it would become subject to the rule, and if it does, how much time is allowed to come into compliance? That is, prior to accepting a high-TDS waste, a POTW might reasonably expect that the new waste will not cause the effluent to exceed 2,000 mg/L because, for instance, of the relatively low volume of the waste in comparison to the flow through the treatment plant. However, after accepting the waste, it finds out that its prediction was in error and it does exceed the 2,000 mg/L threshold. At what point would the effluent limits become operable? It is assumed that the POTW would report the changed conditions under § 92.7. At that point, would it be in noncompliance or would the limits become enforceable only when the NPDES permit was revised? There is no provision in the proposed regulation to clarify this. Thus, the question becomes, is the rule self-implementing, or is it only implemented through the NPDES permit process? The requirements (and risk) for POTWs should be explained in the rule.
8. The issue of when limits apply and when they do not is not addressed anywhere in the proposed rule. An example will illustrate the problem:

Consider the case where a small POTW treats normal sewage and has a discharge of 1,000 mg/L TDS, so it is not regulated under the rule. It decides to accept frack water which would cause the effluent to exceed 2,000 mg/L and the NPDES permit is amended to impose the 500 mg/L effluent limit in anticipation of that event. The POTW imposes restrictions on the source of the frack water to meet its own discharge limit of 500 mg/L (essentially requiring the source of the frack water to dilute the existing incoming domestic sewage below its normal TDS levels). After some time, the source discovers that it cannot meet these stringent local requirements and decides to use another discharge method. At that point the POTW no longer receives the frack water waste (and loses the benefit of the dilution), so that it is back to "normal" conditions, with normal sewage and a normal TDS discharge of 1,000 mg/L. Would the NPDES permit then be revised to remove the 500 mg/L limit so that the POTW

could lawfully discharge 1,000 mg/L of normal wastewater? If so, would federal anti-backsliding requirements (CWA § 402(o)) apply? In other words, are the proposed limits permanent or do they only apply as long as the POTW accepts high-TDS wastes? (And if the latter, why does the rule discuss effluent and not influent as the trigger point?)

What if the POTW only proposes to accept frack water, notifies DEP of the plan as required by § 92.7, and receives a permit that imposes the 500 mg/L limit, but then finds that compliance will be impossible and decides not to accept the frack water at all? Can the POTW apply to have the NPDES permit revised to remove the limits? IS this a major or minor revision? How would anti-backsliding apply in that case?

Note that none of the problems posed in questions 7 and 8 above would even occur if the effluent limits are water quality-based, or if the proposed limits were actually based on practical and available technology as the law requires. These extensive complications are another reason not to proceed with the proposed limits until the Department has complied with the statutory requirement to evaluate what appropriate technology-based limits might be, both for industrial dischargers and POTWs.

Inapplicable Federal ELGs

The rule appears to reflect some confusion regarding the applicability of federal Categorical Standards for Centralized Waste Treatment facilities (40 CFR Part 437). Substantial changes are needed to make the regulation compatible with the federal standards:

1. The proposed rule for POTWs in § 95.10(c)(6)(i) is that any discharge of wastes from fracking operations must be subject to the federal Centralized Waste Treatment pretreatment limits. (It is assumed that the use of the term “performance standards” (which apply to direct dischargers—see 40 CFR § 437.34), in the proposed rule is inadvertent and that the term that is intended to be used here is “pretreatment standards.”) However, unless the wastes are actually discharged from a CWT facility, the federal ELGs do not apply. In essence, the State is attempting to change the applicability of federal regulations to include facilities that are not regulated by the federal rules. In effect, the regulation would

limits for the three regulated chemicals (o-cresol, p-cresol, and 2,4,6 trichlorophenol). Hence, the requirement to develop a complete program under Part 403 makes absolutely no sense at all. Given the thousands of dollars to develop a program, and the thousands more each year to administer it, the rule amounts to nothing more than a *de facto* prohibition on small POTWs accepting frack waters.

Inequity

Finally, the "trigger" criterion will generate strange and inequitable results. If a POTW accepts high-TDS wastewaters, but can maintain effluent TDS below 2,000 mg/L, then it will not be subject to the regulations. Hence, plants can routinely discharge 1,800 mg/L without regulation. However, if a plant discharge exceeds 2,000 mg/L, it becomes subject to the rules and must now achieve an effluent TDS concentration of only 500 mg/L. Thus, two otherwise similar treatment plants, both treating frack wastes, would be subject to widely differing effluent limits. One could lawfully discharge 1,800 mg/L, while the other would have to meet the very strict limit of 500 mg/L. This makes no sense whatsoever.

Additionally, the ambiguity discussed above can create situations where POTWs that do NOT accept frack wastes are regulated because their discharge exceeds 2000 mg/L, while those that do accept such wastes are not as long as they stay under the threshold. It is conceivable that POTWs in areas with hard water and extensive use of water softeners by most customers will be in just such a position, especially with regard to chlorides. And, as noted above, since there is no recognized technology available for POTWs to treat this wastewater, they will be in continuous noncompliance for reasons having nothing to do with high-TDS wastewater. What should such POTWs do: ban water softeners?

Summary

In summary, the entire proposed rule serves no environmental protection purpose, lacks a technical basis, conflicts with several applicable Federal laws and regulations, is internally inconsistent, and proposes a regulatory scheme that will produce wildly different results for very similar POTWs. In addition, the rule is so poorly written that it literally cannot be understood as drafted. There being no reason for such a rule in the first place, it should be scrapped entirely and the use of the existing water quality standards should be continued.