Pennsylvania Aggregates and Concrete Association

2040 Linglestown Rd
Suite 204
Harrisburg, PA 17110
Tel 717-2[illegible]
Fax 717-2[illegible]

September 7, 2022

Chairman George D. Bedwick
Independent Regulatory Review Commission
333 Market Street
Harrisburg, PA 17101

RE: Regulation #7-553: Water Quality Standard for Manganese and Implementation
IRRC No. 3260

Dear Chairman Bedwick and Commissioners:

We are requesting your disapproval of Regulation #7-553: Water Quality Standard for Manganese and Implementation, IRRC No. 3260, because it blatantly disregards the intent of Act 40 of 2017, is discriminatory in its application to only "permitted" discharges, violates the PA Constitution's Article 1, Section 27 [right to clean water] by shielding the PA Department of Environmental Protection from their duty to ensure clean water for all Pennsylvanians, and fails to meet the test for scientific, acceptable data.

Background

PACA (Pennsylvania Aggregates and Concrete Association) is the trade organization for the aggregates (crushed stone, sand and gravel), ready mixed concrete and cement companies in Pennsylvania. Over 175 member companies across the Commonwealth, of all sizes and types, are involved in the production of the above commodities or provide support products and services to the construction materials manufacturing companies. These companies have been actively and positively involved for more than 100 years in helping to provide sustainable jobs and tax revenue in the counties in which they operate.

The proposed rulemaking will affect the aggregates portion of our industry, as the quarry (noncoal) NPDES permits need to comply with water quality standards. Ensuring a sustainable supply of aggregates resources requires advance planning and balancing a complex matrix of engineering, geographical and geological variables, and community considerations. Pennsylvania is consistently in the top five states nationwide in production of crushed stone, with one member Pennsylvania company individually ranked 11th in the nation in production. We cannot neglect the strategic importance of cultivating our own natural resources, particularly considering the billions of federal dollars earmarked for the building of roads and bridges in Pennsylvania through the Bipartisan Infrastructure Law.

DEP and EQB have Misinterpreted and Expanded the Intent of the General Assembly

The Commission is required to determine if the regulation conforms to the intent of the

Pennsylvania Aggregates and Concrete Association

2040 Linglestown Rd
Suite 204
Harrisburg, PA 17110
Tel 717-234-2603
Fax 717-234-7030

General Assembly. Act 40 of 2017 simply required the EQB, within 90 days, to promulgate a regulation requiring the water quality criteria for manganese to be met at the surface potable water supply intake consistent with the exception in 25 *PA Code* §96.3(d), as follows:

> *"j) The board shall promulgate regulations under the act of June 22, 1937 (P.L.1987, No.394), known as "The Clean Streams Law," or other laws of this Commonwealth that require that the water quality criteria for manganese established under 25 Pa. Code Ch. 93 (relating to water quality standards) shall be met, consistent with the exception in 25 Pa. Code § 96.3(d) (relating to water quality protection requirements). Within ninety days of the effective date of this subsection, the board shall promulgate proposed regulations."*

There was no intent on the part of the General Assembly to move manganese into the toxic substance category. There was no intent on the part of the General Assembly to expand Act 40 to implement two different and incompatible regulatory structures in the proposed rulemaking package. The intent was purely to promulgate a regulation as stated in Act 40 of 2017. The Department and the EQB ignored the intent of Act 40.

Regulation is Discriminatory in its Application and Fails to Meet Article 1, Section 27 of the PA Constitution

It is the duty of the Department, pursuant to Section 5 of the Clean Streams Law, to consider water quality management, pollution control in the watershed as a whole, as well as the present and possible future uses of waters in adopting regulations. Yet the proposed regulation only addresses "permitted" facilities. There are hundreds, if not thousands of unpermitted discrete, abandoned mine discharges, and based on their geologic location, would have manganese in their discharges. Yet PA DEP, funded by federal, state and private dollars, does not treat for manganese to the water quality standards found in 25 *PA Code* at any of the abandoned mine discharges under their stewardship. And because these abandoned mine discharges are not permitted—but are most definitely the responsibility of the Department—DEP and the EQB have effectively shielded themselves from this rulemaking, as well as the cost of this proposed regulation.

Additionally, DEP's mission statement doesn't limit it to protecting "permitted" discharges. DEP's mission statement is as follows: "The Department of Environmental Protection's mission is to protect Pennsylvania's air, land and water from pollution and to provide for the health and safety of its citizens through a cleaner environment." There is no manner in which that statement can be interpreted to mean only "permitted" discharges.

Furthermore, the Department consistently and frequently cites Article 1, Section 27 of the Pennsylvania Constitution as the underlying basis for what they do. Yet nowhere in Section 27 does it focus on only "permitted discharges."

> *§ 27. Natural resources and the public estate.*

Pennsylvania Aggregates and Concrete Association

2040 Linglestown Rd
Suite 204
Harrisburg, PA 17110
Tel 717-234-2603
Fax 717-234-7030

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people. (May 18, 1971, P.L.769, J.R.3)

And finally, DEP's response as to the persons, groups or entities, including small businesses, who will be required to comply with the regulation, DEP indicates, "All persons, groups, or entities with proposed or existing point source discharges of manganese into surface waters of the Commonwealth must comply with the regulation." That is a true enough statement, but an incomplete statement. It fails to address that if the Department believes a pollutant is toxic enough to warrant a human health criterion, it should apply to all discharges—permitted and unpermitted.

Cost of This Regulation is Burdensome and Incomplete

DEP's answers to the questions on the IRRC Regulatory Analysis form regarding economic impact fail to adequately address economic impacts for industries, large and small, as well as the domino effect implementation would cause. In particular, the Department does not adequately explain how the benefits of the regulation would outweigh the costs, but rather indicates the costs are "not measurable."

DEP notes, "For these reasons [regarding the complexities of economic impacts] the Department can only estimate the economic impact of this final-form regulation on the regulated community." Therefore, they have acknowledged that there are other dischargers out there, but they can only estimate the economic impact on the regulated community.

In general, treatment for manganese involves use of chemical materials to raise and lower the pH to neutralize acidity and precipitate metals such as iron, aluminum and manganese. This cannot be done in one process. For our industry, there are many challenges to meeting a limit of 0.3 mg/l at the NPDES discharge point and many existing systems are simply not capable of treating manganese to a level below 0.3 mg/l.

The additional cost to meet DEP's proposed limits significantly increases the cost of existing treatment. This is particularly the case where large discharges are being treated. Contrary to public opinion, our member companies strive for no violations of their permit limits. Therefore, to ensure a consistent pattern of no exceedances of the manganese limit, the level of treatment will need to be below 0.3 mg/l, more likely near 0.15 mg/l.

To lower the manganese levels, it will require a closely monitored, pH-controlled process whereby the pH is increased to a level greater than a pH of 10 and where any iron and aluminum begins to dissolve. Unfortunately, this pH level is outside the PA water quality criteria limits of 6 – 9 and will subsequently require another pH adjustment to get the pH back in line with the 6 – 9 limits.

PACA
Pennsylvania Aggregates and Concrete Association

2040 Linglestown Rd
Suite 204
Harrisburg, PA 17110
Tel 717-234-2603
Fax 717-234-7030

While this may sound simple, and perhaps for a small discharge it is, it is significant undertaking for large discharges.

As an example, we have a member company who has a significant number of NPDES permits at various locations across the Commonwealth of Pennsylvania. Of these permits, eight of them currently have conditions limiting the discharge of manganese, per the Reasonable Potential Analysis performed by DEP during the permit application process and due to geographic and geologic location. The company has done significant monitoring and sampling around these eight sites. They have installed monitoring wells to be able to provide a complete picture of water conditions surrounding the facilities. Background sampling of monitoring wells located upstream, downstream, and various other surface points at these eight locations, demonstrate elevated background manganese levels commonly exceeding the facility's discharge levels.

At the current 1.0 mg/l manganese limit, that company can keep those eight permits in compliance at the current 1.0 mg/l limit with treatment costing approximately $150,000 per year for all sites combined. The proposed change in the limit from 1.0 mg/l to 0.3 mg/l will mean that six of the eight sites will no longer be able to comply without additional treatment. Additionally, many of these sites also have low pH and elevated aluminum levels due to geology and location. Treatment for manganese removal is complicated by these factors, making it a much more complex and expensive process to achieve compliance for manganese, aluminum and pH together.

The company anticipates capital costs of approximately $320,000 to expand the treatment for some of the sites, and to install the necessary treatment equipment at all of the sites. Additional annual operating costs for all sites combined is expected to rise to approximately $450,000. Two of the sites have serious footprint issues, which precludes them from expanding to allow for more ponds for treatment. The other six sites will need the pond size expanded to ensure that they meet the target reliably, and they will need increased treatment or new chemical systems. These projected costs are comprised of engineering, construction, treatment systems, power systems, and automation systems as necessary for each site. It is possible they will need additional personnel to manage the additional treatment systems.

It is anticipated there may be additional costs in addition to the neutralization costs, including increased sludge disposal from the increased precipitation that will occur due to the pH adjustment process needed to meet the proposed 0.3 mg/l Mg level. Due to competition and the low commodity price, it is not expected they will be able to recuperate these costs by increasing prices at these locations. Furthermore, the carbon footprint of having a significant amount of additional treatment chemicals delivered flies in the face of the Department's approach regarding climate change.

This is just one company example that illustrates the cost of this proposed regulation for a constituent that does not pose a health threat.

PACA
Pennsylvania Aggregates and Concrete Association

2040 Linglestown Rd
Suite 204
Harrisburg, PA 17110
Tel 717-234-2603
Fax 717-234-7030

Additionally, however, the Department has not addressed the cost of compliance for the abandoned mine discharges that are under their responsibility. The Clean Water Act forbids all discharges of pollutants into waters of the United States, unless the discharger holds a permit. Given these sites are the responsibility of DEP, and even though the Department is ignoring the manganese discharging from these sites due to the lack of any NPDES permitting, not including them in the cost of this regulation is significantly distorting the cost of this proposed regulation.

Modifying Factor of 3 Is Inconsistent with Current Science

The Department has chosen to include a modifying factor of 3 to come up with a 0.3 mg/l manganese limit using outdated science. As recently as 2018 and 2019, the science has shown there is no need for a modifying factor to derive a protective manganese concentration for health. (See Gradient Report submitted with PA Coal Alliance comments.)

There is no regulatory or scientific requirement to include the modifying factor in either state or federal regulations. Neither the Clean Water Act nor EPA requires the use of a modifying factor. Removing the modifying factor of 3 would result in a manganese criterion of 1 mg/l, which is the current standard.

Implementation is Impractical and Nonsensical

As we noted above in the example for just one company under Costs, the methods of compliance, particularly for large facilities, poses unnecessary and quite significant costs. In addition, it is in contradiction to other DEP goals. The addition of significant additional chemicals, increases in the handling and disposing of the increased sludge generated, possible increase in the number of truck deliveries of chemicals, increases in air emissions, energy usage, road and bridge wear and tear, etc. all serve to increase the carbon footprint from this regulation—something the Governor's Office and the Department have been railing against for many years.

With respect to those facilities that don't have the room for additional or larger treatment ponds, it is increasingly difficult to expand quarries due to public sentiment regarding the extractive industries. DEP has not taken into consideration that not only would additional property be overtly expensive once the neighboring property owners realized their properties were needed for compliance but getting people to actually agree to sell adjacent properties at any price would be incredibly difficult. The Municipal Planning Code and local rules continue to be constrictors in how a quarry can expand.

Conclusion

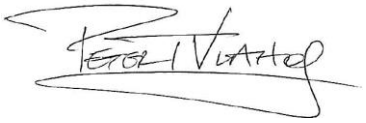
In conclusion, we request that IRRC disapprove the regulation. If and when EPA develops a nationwide regulation for human health for manganese, DEP could develop a regulation that is equitable across the Commonwealth and accounts for all discharges of manganese into PA waters and is no more stringent than federal requirements.

Pennsylvania Aggregates and Concrete Association

2040 Linglestown Rd
Suite 204
Harrisburg, PA 17110
Tel 717-234-2603
Fax 717-234-7030

We appreciate your consideration of our comments.

Sincerely,



Peter T. Vlahos
President & CEO

cc: Ramez Ziadeh, P.E. – PA DEP Acting Secretary