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Independent Regulatory Review Commission

Corsa Coal Company
1576 Stoystown Road
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September 8, 2022

Independent Regulatory Review Commission
14th Floor Conference Room
333 Market Street
Harrisburg, PA 17101

Re: No. 3260 Environmental Quality Board #7-553: Water Quality Standard for Manganese and Implementation

Corsa Coal Corp. and its subsidiaries operate multiple coal mining facilities in Somerset County, Pennsylvania, and employ well over 300 men and woman. Corsa's operations include over twenty distinct water treatment sites with NPDES permits that would be directly impacted by this proposed rule-making. These water treatment sites treat and discharge over 2.5 billion gallons of water per year; almost 5,000 gallons of water per minute every day of the year. Many of the sites have operated for more than 30 years with thriving downstream aquatic and recreational uses. In watersheds that see degraded water quality from mining impacts the sites operated by private companies, like Corsa Coal.

Corsa also operates a mining facility in Western Maryland, and at that location the manganese standard is a 2.0 mg/l. Maryland has made no mention of revising the limit. There is no doubt that the proposed rulemaking would place Pennsylvania mining companies at an unnecessary disadvantage with neighboring coal mining states.

Corsa Coal has extensive experience with treating water from mining sites and we can foresee many of the challenges and hardships that would be imposed by a change from the existing 1.0 mg/l limit to a 0.3 mg/l limit. The basics of water treatment at this level will be driven by alkaline chemical addition to the water, either with sodium hydroxide (caustic soda) or a lime-based product (calcium hydroxide). While water treatment with alkaline chemicals is routine and ongoing, the required amount of treatment required lower manganese concentrations from 1.0 mg/l to 0.3 mg/l is not a linear incremental change but a logarithmic change, increasing pH one point is a tenfold increase. This could represent as much as a doubling of the required alkaline chemical addition already being applied. This increase in chemical usage would cost Corsa in excess of one million dollars a year. The chemical treatment would also cause the need to reduce pH, by applying acid, before treated waters discharge to a receiving stream.

Large increases in both alkaline and acidic chemical usage are not solely a cost concern but also a water quality concern. As the rate of chemical usage increases the amount of dissolved solids in the water also increases. The net effect of this increased water treatment is that the water becomes increasingly salty which can cause stress to aquatic life and result in situations like the 2009 Dunkard Creek incident.

In addition to the above referenced direct affects of the proposed manganese rule on Corsa, the following should be considered in your evaluation:

- Does not comply with Act 40.
- Incorrectly designates manganese as toxic.
- Is not required to protect aquatic life.
- Will provide no practical reduction in manganese levels in streams since the majority of manganese loading comes from unregulated sources.
- Exposes the state and others to liability for treatment and civil penalties for not complying with water quality regulations.
- Ignores the most recent science and studies on manganese.
- Significantly overstates the potential impacts to public water systems and underestimates costs to the coal industry.
- Lacks practical field application.
- Will put the Pennsylvania coal industry at a disadvantage to other competing states.
- Is likely to end the Subchapter-F mining program that has facilitated the reclamation of significant areas of scarred mine land.
- Will increase the cost of and may prevent earth disturbance activities, especially PennDOT projects, by requiring specific control of manganese in stormwater runoff.
- Imposes unnecessary additional costs on publicly owned treatment works and public water suppliers, and therefore their ratepayers, who discharge manganese in treated wastewater and filter backwash water.

Act 40

The Department' of Environmental Protection's assertion that the proposed final form of this regulation is compelled by Act 40 of 2017 is misleading at best; particularly since the regulation does not comply with Act 40. Repeatedly through the Regulatory Analysis Form and supporting documents authored by the Department, the Department claims Act 40 directed the Department to *propose* a regulation. This assertion is false.

Act 40 of 2017 added subsection (j) to Section 1920-A of The Administrative Code of 1929, 71 P.S. § 510-20(j) and requires the following*: "..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 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."*

Promulgate, according to Black's Law Dictionary, means to "To publish; to announce officially; to make public as important or obligatory." Considering this, the regulation being advanced by the Department to the Environmental Quality Board for a vote is in violation of Act 40 because it does not *promulgate* a regulation listing manganese as an exception under 25 Pa. Code § 96.3(d). Rather, in drafting the regulation, the Department simply ignored what the General Assembly directed it to do through Act 40.

Manganese is not Toxic

Manganese is naturally occurring in the earth's crust and is exposed when rock breaks. Manganese is essential to brain development, nervous system function, and maintaining a healthy immune system. Naturally occurring in many foods, manganese can be found in high levels in mussels, clams, and brown rice, and in moderate levels in legumes, pineapple juice, and tea. No other state in the nation has established a toxicity standard for manganese, let alone an unreasonably low 0.3 mg/L toxicity standard applied at the point of discharge. Federally, manganese is not considered toxic at any level. While there

is a secondary maximum contaminant (SMCL) limit of 0.05 mg/L, this standard applies only to finished drinking water delivered to a water customer and was established solely to address taste and odor.

No Practical Manganese Reduction

The regulation is flawed because it applies an unreasonable standard to industry while no standard is applied to the Department, conservation groups, watershed groups, and other like organizations that attempt to address Pennsylvania's legacy, pre- and post- 1977 abandoned mine drainage, or acid mine drainage (AMD), discharges.

By way of background, coal mining was first regulated at the federal level in 1977. At the time, in an effort to mitigate damage from AMD, Congress appropriated funds to reclaim mines that were abandoned prior to 1977, and, this year, reauthorized the fee placed on each ton of mined coal to extend until 2034 to support those efforts. Any mine lands abandoned after 1977 are not eligible for federal funding. The distinction between the two is important as the Department has a program to treat pre-1977 discharges and is liable for post 1977 discharges, and in both scenarios does not treat to current water quality standards.

Manganese discharges from Pennsylvania's coal mining industry are regulated at the technology-based effluent limit of 2.0 mg/L in 40 Code of Federal Regulations Part 434, which has been incorporated in 25 PA Code Chapters 87 – 90. While all coal mine discharges are subject to the 2.0 mg/L effluent limitation on their permits, the majority receive the additional, more stringent 1.0 mg/L Chapter 93 in-stream potable water supply standard (PWS) because they are located in an impaired watershed having a Total Maximum Daily Load (TMDL). Absent taking into consideration that several of the TMDL's adopted by the Department are severely flawed and founded on inadequate data that ignores hundreds of AMD discharges in the watershed, the majority of permitted mine sites are subject to TMDLs and are forced to treat to the current 1.0 mg/L PWS standard. Any benefit from meeting this stringent requirement, which is very difficult to successfully meet, is often negated by downstream AMD discharges that are the responsibility of the Department or other aforementioned organizations, which do not treat to current water quality standards.

ABS Sites

For instance, below is a snapshot of Alternative Bonding System (ABS) sites that the Department is legally responsible to treat (*Pennsylvania Federation of Sportsmen Clubs, Inc. v. PA DEP*). There are over 100 ABS Legacy Site discharges, but of the 52 ABS Legacy Sites that had flow and manganese data reported, 77% of them do not meet the current standard of 1.0 mg/L. The Department's policy of "do what I say, not what I do," should raise serious questions about the Department's real intent behind this regulation. Does the Department intend to repair Pennsylvania's polluted streams or, as it appears, does it intend to impose an impossibly high, irrational regulatory burden on an industry? The coal mining industry responsibly treats for manganese to the established water quality effluent limitations, while the Department and other organizations that operate similar discharge operations are in violation of Pennsylvania's current water quality effluent standards. In fact, in one evaluated watershed, more than 95% of the manganese loading was from AMD discharges and only 5% from the regulated community. How will this regulation address this issue to improve water quality in this watershed regarding manganese? If anything, it discourages private investment

PA DEP ABS Sites

Site	Five Year High Mn mg/L	Five Year High Flow GPM	Five Year High Date
Cambria 51	60.373	20	3/25/2019
Kaufman North GRIT	35.957	25	11/17/2020
Kaufman North Final	33.484	6	3/31/2017
Kaufman SLB10	32.360	5	3/31/2017
Cambria 51	32.098	N/A	6/15/2021
Pearce	27.186	2.1	8/5/2021
Morris 2	26.794	17	1/16/2018
Little D	26.715	40	7/10/2017
Alder Run	19.494	75	12/29/2020
Pine Glen	19.242	270	10/24/2018
Dugan 4	15.898	112.5	12/14/2018
Darmac	15.285	N/A	4/8/2019
McNatt	14.697	0.72	12/6/2019
WHS Brant	13.673	20	7/25/2017
Little Beth	13.597	68	12/4/2018
Sorber	11.937	20	1/17/2018
Smail Out	11.324	120	2/6/2020
Vosburg	10.143	15	1/7/2020
Victoria	10.094	70	6/8/2017
Miller Stein W102	9.156	0.19	11/19/2019
Thompson	7.889	2.5	12/15/2020
Bell Woodcock	7.640	N/A	12/8/2020
Addison	7.272	8	7/18/2017
King	7.154	N/A	8/9/2018
James Long	6.858	70	3/9/2017
Hay 2 MD1A	6.086	80	3/30/2021
Moore No. 2	6.086	5	10/22/2018
Silver Rock	6.085	10	7/26/2018
Bashore	5.933	30	2/22/2017
Burkholder	5.673	N/A	6/12/2017
Ankey MM6	5.668	8	4/29/2019
Ankey MM2	5.186	5	7/6/2018
Bernice Lewis	5.079	60	3/30/2021
Berkey	4.109	N/A	10/24/2017
Miller Stein SLB11	4.081	50	1/28/2021
Amer Dev Job 33	3.574	12	4/12/2018

Maust	3.558	40	7/22/2021
Hay 2 MD3A	3.476	2	6/11/2019
Latherow	3.376	42	3/25/2019
Truittsburg	3.192	10	7/24/2018
Hostetter	2.900	8	8/23/2021
Miller Stein W101	1.934	0.033	12/18/2017
Moore No. 5	1.925	20	4/4/2019
Dugan 2	1.467	37	11/6/2017
Sandturn	1.405	6.5	6/24/2021
Stroud	0.981	N/A	10/14/202
LLB SPE4	0.931	N/A	1/14/2019
Carwath	0.898	3	2/16/2017
Ralston	0.699	15	3/26/2018
Horsehill	0.525	30	1/13/2017
Broom	0.123	5	9/26/2019
Narco	<.05	41	6/10/2021

**meets the 2.0 mg/L coal mining standard*

**meets current 1.0 mg/L PWS standard*

**meets proposed 0.3 mg/L toxicity standard*

Science, Field Application, and Other States

It is telling that the Department entirely ignored the Mining and Reclamation Advisory Board and the Aggregate Advisory Board during the development of the regulations and during the proposed rule stage. At the recommendation of the Independent Regulatory Review Commission, and after the regulation's public comment period ended, the Department visited with the Advisory Boards. To date, the Department has yet to answer numerous questions asked by the Boards. Instead, the Department decided the direction they were going to take towards a final regulation and, after publishing the proposed rule, contracted with Drexel and Penn State to attempt to rationalize their chosen approach. Nevertheless, even their commissioned reports are flawed in their analysis, do not use the most recent science, and include inaccurate basic mathematical calculations.

The Regulatory Analysis Form written by the Department indicates "No costs will be imposed directly on state government by this regulation." Is this because the Department plans to continue to violate state law by not treating to their own criteria? Is this because the Department plans to allow watershed groups and conversation districts and other like organizations to violate state law by not requiring treatment to the state's water quality standards? If manganese is truly toxic, logically the Department would focus its efforts on treating for manganese instead of establishing one standard for industry and no standard for everyone else.

In addition, the Regulatory Analysis Form states the regulation will not put Pennsylvania at a competitive disadvantage since other states have similar geology. However, even the Department's contracted report from Penn State suggests the coal mining industry will incur capital costs in the range of $137 to $143 million in capital costs and annual costs ranging from $33.0 million to $46.2 million if 75% of the permits are impacted. Considering no other states has a 0.3 mg/L toxicity standard applied to

coal mine or any other discharges, and all other coal mining states apply the federal technology-based 2.0 mg/L effluent standard at their discharges (with a few outliers), it is evident Pennsylvania's mining industry, both coal and non-coal, will be placed in an economically disadvantaged position as a result of this regulation.

STATE	WQS for Coal Mining Discharges
Indiana	2 mg/L
Illinois	2 mg/L, 1 mg/L when located in a TMDL
Kentucky	2 mg/L
Maryland	2 mg/L
Ohio	2 mg/L, 1 mg/L if within 500 yards or a water withdrawal
Pennsylvania	2 mg/l, 1 mg/L when located in a TMDL
West Virginia	2 mg/L, 1 mg/L if within five miles of a water withdrawal
Wyoming	2 mg/L

**Illinois and Wyoming have ambient surface water quality criteria for manganese for aquatic life and fish consumption based on hardness.*

Further, the regulation is patently flawed because the Department does not have any data, or practical experience, in treating manganese to 0.3 mg/L at high flow rates or with large volumes of water, nor has the Department considered that many mining discharges are landlocked, often surrounded by legacy gob or culm piles, private land, or state parks and forests where land is not available to construct acres upon acres of passive treatment systems with manganese drying beds to comply, even assuming it is possible to reliably treat manganese to 0.3 mg/L with passive systems under all flow and temperature conditions (which it is not). Further, claims that applying the standard at the water withdrawal, in compliance with Act 40, will impact water systems are grossly exaggerated, as the Department has made no assessment of the number of mine discharges that are located near water withdrawals, whether the discharges originate from industry, ABS sites, or legacy AMD sites. In most cases, mine discharges are on average 50 miles from a water withdrawal.

There are solutions to addressing Pennsylvania's pre- and post-1977 legacy AMD discharges, and there have been successful projects supported by significant industry investment. However, identifying solutions requires collaboration between government and industry, not regulatory schemes that will cost industry tens of millions of dollars, yet have no overall positive effect due to the requirements being selectively applied.

I encourage the members of the Independent Regulatory Review Commission to carefully consider what has transpired in the development of the final rulemaking and request a no vote. Please contact me with any questions.

Sincerely,

Robert Bottegal

Robert Bottegal
Vice President of Engineering
Corsa Coal Company