



Update on Variances: FROM THE DISCHARGER PERSPECTIVE

Current Variance Issues

- ▶ Chloride Variances
 - ▶ Approval by DNR and EPA
 - ▶ Source Reduction Measures
- ▶ Mercury Variances
 - ▶ Approval by DNR and EPA
 - ▶ Pollutant Minimization Programs (same concept as SRMs)
- ▶ Individual Phosphorus Variances
 - ▶ MHI Calculations

Chloride Variances

- ▶ Major Considerations:
 - ▶ Do you need a limit and a variance from that limit?
 - ▶ Do you qualify for a variance based on economics?
 - ▶ How should you structure SRMs and PMPs for an approvable variance?

Chloride Variances

- ▶ Do you need a limit and a variance from that limit?
 - ▶ If there is no reasonable potential for violation of the chloride water quality criteria, a limit is not necessary and a variance is not necessary
- ▶ Major Considerations:
 - ▶ **Effluent Data.**
 - ▶ Does DNR have your most recent effluent concentration data?
 - ▶ **Flow Data.**
 - ▶ Does DNR have your most recent flow data?
 - ▶ This data should include monthly low flows and mixing zone studies
 - ▶ Make sure DNR has this data before you are applying for reissuance to avoid time spent recalculating limits

Chloride Variances

- ▶ Do you qualify for a variance based on substantial and widespread economic and social impact?
- ▶ Other options for qualifying for a variance under Wis. Stat. s. 283.15, but widespread economic impact is the one predominantly used

Chloride Variances

- ▶ **NR 106.83 (2) Chloride variance.**
- ▶ **(a) Findings.** On February 1, 2000, the department finds that:
 - ▶ 1. End-of-pipe wastewater treatment technology for chloride is prohibitively expensive;
 - ▶ 2. End-of-pipe wastewater treatment technology for chloride produces a concentrated brine that can be as much or more of an environmental liability than the untreated effluent;
 - ▶ 3. Appropriate chloride source reduction activities are preferable environmentally to end-of-pipe effluent treatment in most cases; and
 - ▶ 4. For some dischargers, attaining the applicable water quality standards specified in chs. NR 102 to 105 may cause substantial and widespread adverse social and economic impacts in the area where the discharger is located.
 - ▶ 5. These findings shall be reviewed by the department every 3 years.
- ▶ **(b) Application.** An existing discharger seeking a chloride variance under this subsection shall submit an application for a chloride variance when it submits its application for permit reissuance. The application shall include the permittee's basis for concluding that the findings in sub. (2) (a) for a chloride variance are applicable to its discharge.
- ▶ **(c) Department determinations.** The department shall review the application submitted by the permittee. The application shall be approved if the department agrees with the permittee's basis for concluding that the findings under par. (a) for a chloride variance are applicable to its discharge. The department shall obtain U.S. environmental protection agency approval before a variance is included in a permit under this subsection.
- ▶ **(d) Permit conditions implementing a chloride variance.** The department shall grant a chloride variance to an existing discharger when:
 - ▶ 1. The findings in par. (a) supporting a chloride variance apply to the specific discharge; and
 - ▶ 2. The permittee and the department agree upon specific permit language imposing an interim limitation, a target value or, where appropriate, a target limitation, and source reduction activities.

Chloride Variances

- ▶ Qualifying Based on Economics
 - ▶ Compliance costs greater than 2% of the median household income (MHI) are typically considered to be substantial
 - ▶ Compliance costs between 1-2% MHI constitute substantial impacts if additional secondary indicators are met
 - ▶ Secondary factors include unemployment rate, bond rating, etc.
 - ▶ EPA can consider “unique circumstances of the community” that cause costs to be substantial

Chloride Variances

- ▶ MHI Calculation
 - ▶ Based on consideration of costs associated with all pollution control technologies (i.e. all treatment required to comply with water quality standards) as a percentage of MHI
 - ▶ Analysis should include:
 - ▶ All costs associated with compliance with chloride limits, including cost of lime softening treatment if applicable
 - ▶ Any costs necessary to comply with other pollutant WQS (ex. phosphorus) that will occur in the term of the reissued permit

Chloride Variances

- ▶ Source Reduction Measures (and PMPs)
 - ▶ EPA is looking for more detailed SRM plans based on two concepts from 2015 regulations:
 - ▶ Highest Attainable Condition
 - ▶ Justifying the term of the variance
 - ▶ Documentation is key!
 - ▶ What SRMs are going to be implemented? Why? Over what time frame?
 - ▶ What worked during the last permit term? What did not?

Source Reduction Measures	Actions	Start Frequency/Completion
Tune-up rental softeners when they are serviced	Adjust softener settings to provide optimal operation each time a rental softener is serviced; track tune-ups conducted	Start: Year 1 Frequency: Annual, ongoing
Provide information regarding the City's existing ordinance that requires the use of demand initiated regeneration and a high salt efficiency standard for new and replacement softeners	Include information about this ordinance and the City's Softener Rental Program in the packets provided to home buyers by the Chamber of Commerce. Notify plumbers and realtors in the area about the ordinance.	Start: Year 1 Frequency: Annual, ongoing
Evaluate the feasibility of installing a municipal lime softening system to replace point-of-use softeners	Evaluate the feasibility, in terms of both the technical and economic aspects, of installing a municipal water system with lime softening technology, and submit those findings in the final chloride report	Start: Year 4 Completion: Year 5
Work with industrial and commercial contributors to prevent increases in the amount of chloride discharged and seek reductions from those sources	Conduct annual meetings and inspections with each industrial and commercial contributor, during which sources of chloride discharged and means for reducing discharges will be identified and where appropriate plans will be developed to implement additional SRMs	Start: Year 1 Frequency: Annual, ongoing
Evaluate the feasibility of switching from a ferrous chloride to a non-chloride containing chemical or using biological process for phosphorus removal	Evaluate the technical, operational and economic feasibility of using a non-chloride chemical or biological process for phosphorus removal	Start: Year 1 Completion: Year 3

Phosphorus Individual Variances

- ▶ EPA may be requiring evaluation of the cost of using the MDV as part of the MHI cost calculation
- ▶ We disagree with this position
 - ▶ Cost calculation is about the cost of compliance, and the MDV is a variance and not a compliance option
 - ▶ Working with DNR and EPA on this issue



Questions?

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