NPDES Permitting - Start to Finish: Shon Simpson (GBMc & Associates) Arkansas Environmental Federation Water Seminar Presentation

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Shon Simpson undertook a presentation at the June 16th Arkansas Environmental Federation Water Seminar titled:

NPDES Permitting – Start to Finish ("Presentation")

Shon is a Principal/Senior Project Manager at GBMc & Associates.

A Clean Water Act National Pollutant Discharge Elimination System ("NPDES") permit must be acquired if five jurisdictional elements are present:

- A person
- adds a
- pollutant
- to navigable waters (i.e., waters of the United States)
- from a point source.

The prohibition of point source discharges in the absence of an NPDES permit is an obligation separate and distinct from the requirement that the facility discharge comply with applicable effluent limitations. The permit effluent limitations generally constitute the restrictions applicable to a facility's discharge.

NPDES permits transform generally applicable effluent limitations and standards into obligations of the individual discharger. The application of a particular parameter limit or condition to a facility is driven by two Clean Water Act programs. They are the National Categorical Standards (technology-based limits) and State Water Quality Standards (water quality-based limits).

Shon's *Presentation* provided an overview of the process of applying for an NPDES permit through its development and ultimate issuance.

The *Presentation* first addressed the historical development of the relevant statutory provisions including:

- 1972 Federal Water Pollution Control Act Amendments
- 1977 Clean Water Act Amendments
- 1987 Water Quality Act Amendments

A key question addressed was, "Who Needs an NPDES permit?" See 40 CFR 122.1(b), noting the roles of terms such as "point source" and "pollutant."

The discussion of pollutants included their classes:

- Conventional
- Toxics
- Non-conventional

As to the NPDES application process, the *Presentation* addressed:

- Existing dischargers
- NPDES application process basic steps
- Renewal permit development process (initial steps)

In determining the effluent limits and/or other restrictions placed in an NPDES permit the *Presentation* addressed:

- Technology-based effluent limits, noting:
- Clean Water Act requirements based on capability of technologies available to control the discharge of pollutants
- Prevent pollution by requiring a minimum level of effluent quality
- Developed independently of potential impact of a discharge on the receiving stream

The technology-based standards division of Public Owned Treatment Works (Secondary Treatment Standards) and Non-Public Owned Treatment Works (Effluent Limitation Guidelines) were noted.

The effluent limitations guidelines for non-public owned treatment works for the various types of facilities and industries were discussed, including the establishing of six types of standards:

- Best Practicable Control Technology Currently Available (BPT)
- Best Conventional Pollutant Control Technology (BCT)
- Best Available Technology Economically Achievable (BAT)
- New Source Performance Standards (NSPS)
- Pretreatment Standards for Existing (PSES) and New Sources (PSNS)

The *Presentation* noted that effluent limitations guidelines and standards can include:

- Numeric limitations (mass or concentration based)
- Non-numeric/narrative limitations
- Best management practices
- Pollution prevention practices

A discussion of TBELS using effluent limitation guidelines was undertaken which included:

- Flow-normalized effluent guidelines
- Production-normalized effluent guidelines and examples

The discussion then addressed water quality-based effluent limits which included a focus on meeting instream water quality criteria (numeric and narrative). Issues reviewed included:

- Methods for determining permit limits
- Effluent characterization
- Effluent discharge flow
- Effluent pollutant data
- Receiving stream characterization
- Calculating water quality based effluent limits which included an example addressing sequential steps:
- Step 1: Reasonable potential screen copper example
- Step 2: Determine the wasteload allocation
- Step 3: Convert the wasteload allocation to a long-term average

- Step 4: WQBEL-calculating the permit limits

In terms of NPDES permitting finalization it was noted:

- The Division of Environmental Quality will evaluate and select the most stringent limits from:
- Current permit limits
- Technology based effluent limits
- Water quality-based effluent limits

Also discussed were the Division of Environmental Quality steps in issuing the permit:

- Courtesy draft review
- U.S. Environmental Protection Agency review (if applicable – all majors and permits with effluent limit guidelines)
- Public notice and comment period

Advice was provided for the applicant's review of the permit which suggests:

- Review permit thoroughly
- Limits versus data you have
- Has something changed?
- Review the fact sheet or statement of basis
- Ask questions or seek clarification
- Comment if needed

A copy of the slides from the *Presentation* can be downloaded here.