

EHS Tips for Water Quality Permitting and Compliance



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Today's WQ P&C Tips



1. Compliance begins with
2. Permit application process
3. Understand your final permit
4. Monitoring and reporting



Compliance begins with... knowing your audience



Permit writers:

- Have never been to your facility
- Are not experts in the industry
- Don't know the industrial process
- Haven't analyzed the various waste streams
- Will make decision based on the application

What you can do to help:

- Meet with your permit writer early
- Educate your permit writer
- Develop an informative application
- Provide a background information document
- Stay engaged in the permitting process

Permit application... complete and instructive forms



Keys to the game:

- If it's in your application, it's in your permit
- Proper disclosure = proper permit coverage
- New or expanded discharges may require an Antidegradation Analysis



Application challenges:

- Inventory of pollutant sources
- Water flow schematic/water balance (inflow = outflow?)
- Data sources
- Don't forget about chemical additives

Permit application... supplement information/report



- Do the calculations – technology-based effluent limitation (TBEL) and water quality-based effluent limitation (WQBEL) estimates
- Understand the site history
- Record critical permit decisions that should remain in the permit
- Document reasons why federal Effluent Limitation Guidelines apply or do not apply
- Provide other critical insights to assist the permit writer

Permit application... collaborate on the draft permit



- Pre-Public Notice Review *and* Public Notice Review
- Verify the accuracy of the facility description and the number and types of discharges
- Understand how limits were derived → verify the reasonable potential analyses (RPAs)
- Acceptable sampling type and frequency
- Appropriate application of regulations



Know your permit



- Read it and understand the derivation of effluent limits
 - Water quality based (WQBEL)
 - Technology based (TBEL)
- Make sure it covers all processes (example of facility that had a small metal etching process that triggered 40 CFR 433)
- If you have an applicable Effluent Limitation Guideline for which there are no rule-specific limits, don't forget that part 403 still applies for pretreatment facilities
- Monitor treatment processes/flows - remain for consistent throughout permit

ELGs



Building blocks – make sure that all of your processes are included. This ensures that -

- The discharge has complete permit coverage.
- All loading allowances for all processes are claimed.

40 CFR 463 applicability

The U.S. EPA has issued an interpretation that the agency:

“does not consider 463 to be “categorical standards” because in 463.26 there are no specific quantities or concentrations (or required management practices “BMPs”, which might include “no discharge” or flow volume restrictions, etc., which are also included in the definition of “standards”), but the requirement to comply with 403.”

Stormwater



Look for issues that are hidden in plain site

- Process vent discharges
- Monitor changes and additions to any non-stormwater discharges, e.g., once-through cooling water or other additives
 - Clean-in-place chemicals
 - Anti-scalents/corrosion inhibitors
 - Antimicrobials
- Has a new outfall “developed?”

SWPPP



Make sure that the SWPPP and BMPs are designed to address:

- Current permit
 - SWPPP requirements can change at permit renewal
 - Change from construction to operating permit
- All outfalls
- All sources
- All pollutants
- Design precipitation events

SWPPP Template



- Which template to use? State, EPA, company, consultant?
- Make sure you are using a template that covers everything in the permit.
- A template is a useful starting point, but you will be evaluated according to the permit, not the template – even if using a state or EPA template.

SWPPP Implementation



- The SWPPP is supposed to be a living document
- The BMPs should drive the SWPPP, not the other way around
- Site conditions and practices are always changing, requiring continual updates to the document

Environmental audits



Audits are a good investment, however,

- Don't begin one until you have management support and resources to address the findings
- Know the audit policy/rule in your state
 - Requirements for disclosure
 - Find and fix provisions
 - <https://www.epa.gov/compliance/epas-audit-policy#conditions>

Compliance schedules



1. Provide permittees with more time to meet water quality standards (WQS)
2. Generally limited to within the term of one five-year permit
3. Don't be afraid to ask for one, but...
4. Be ready to have specific actions to meet the limits within a certain time frame
5. Try to drive the scope and timeframe as much as possible
6. Vet the scope and timeframe internally
7. Try to build flexibility into the interim milestones
8. When a schedule of compliance might be helpful
 1. Pretreatment program development
 2. New or revised effluent regulations
 3. New or revised water quality standards
 4. Best Management Practices (BMP) development and implementation
 5. Stormwater/SSO control program development and/or implementation

Sampling



- Sample early in the reporting period if possible
- Consider seeking faster turnaround times on lab results
- For stormwater, make sure you have access to precipitation data that will be available when you are ready to prepare reports
- Have a written protocol for measuring/estimating discharge flows
- If using a model to estimate discharge volume, check with the permit writer
- Use a lab that routinely provides QC information with the report

Get ready for what's coming



- PFAS
- Nutrients <https://dnr.mo.gov/document-search/total-phosphorus-permit-implementation-guidance-june-2024>

Circumstances requiring heightened attention



- Actual flows are close to design flows
- Barely or not meeting discharge limits or benchmarks
- Sustained changes to discharge pollutant concentrations
- Planned increases in production with expanded discharges
- New production areas requiring new outfalls
- Permit renewal due soon
- New regulatory requirements
- Potential or upcoming regulatory audit

Conclusion



Bottom Line - Make sure that the permit is correct before investing in upgrades or treatment.

