**Inorganics & Organics Treatment Plant or Facility - Plan Review List (DRAFT)**

Address the following items during the DDW internal plan review process for water treatment plants (WTP) removing inorganic contaminants. This list is NOT for surface water WTP.

1. Describe the source & water quality concerns, including source name, SDWIS ID, flow, concentration, MCL level, acute (e.g., nitrate) or chronic (e.g., arsenic) health risk, MCL level, etc.
2. Identify the plant or facility name (matching with the name listed in DDW’s SDWIS database) and SDWIS ID.
3. Describe the treatment technology (e.g., adsorptive media, Iron-based media, aeration, etc.) and equipment (e.g., manufacturer, brand, model, etc.)
4. Describe the chemicals that will be added during the treatment process. Describe whether the chemicals used meet the ANSI/NSF 60 standard.
5. Describe whether ANSI/NSF 61 certification exists for the proposed treatment process or unit.
6. If applicable, describe pilot test or bench top test (e.g., procedures, parameters, duration, results, etc.). Describe how to determine whether or not pre-treatment is needed, and the reason for selecting a specific pre-treatment process.
7. Indicate whether pre-treatment is included in the treatment processes. Describe the pre-treatment process if applicable.
8. Address simultaneous compliance concerns if any. Describe whether the treated water and waste stream from the proposed treatment process may result in unintended consequences in the distribution system or the environment. For example, the finished water after a reverse osmosis (RO) process may cause corrosion and lead/copper compliance problems in the distribution system.
9. Describe whether pre-oxidation or pre-treatment is included in the treatment processes.
10. Describe whether pH adjustment is needed.
11. Describe number of treatment trains, capacity of each train, and capacity of the treatment plant.
12. Describe whether a bypass water line exists or not. If the bypass water line exists, explain how the by-pass incident (e.g., water quantity and quality and/or notification to DDW, etc.) will be handled. If applicable, describe the design features that control the bypass or blending flows.
13. Describe the waste stream (e.g., sludge, wastewater, brine, etc.) and how they will be handled. Verify the water system has a legal means to dispose all of the waste types.
14. Identify the relevant rules or sections applicable to this review, e.g., R309-520, R309-525-11, R309-535-X, etc. If applicable, describe the issues related to specific rule requirements.
15. The Plan Approval (PA) letter for a WTP treating inorganic or organic contaminants should include the information required for issuing an Operating Permit (OP). Customize the generic OP checklist to include specific requirements for items that would be required for issuing an OP for a WTP treating inorganic or organic contaminant.

* Specify “water quality data” required to verify WTP performance. For example:
  1. Number of data sets of before & after water samples
  2. Parameters that will be sampled or monitored (e.g., arsenic, pH, iron, TDS, conductivity, etc.)
  3. Frequency of sampling (e.g., daily sample, at least one day apart)
* Obtain WTP location data. Enter the location data in SDWIS database.

1. Consult with the DDW Rules Section staff (i.e., the rule manager for the specific contaminant).

* Inorganics (corrosion control, lead/copper, arsenic, softening, taste and odor, iron /manganese, fluoride, etc.): J.J. Trussell
* Nitrate: Colt Smith
* Disinfection: Brad Holdaway
* Gross Alpha and Organics (TCE, PCE, VOC, petroleum products, etc.): Rachael Cassady

1. Obtain a brief paragraph of the future monitoring/reporting requirements from the DDW rule manager (see Item #15) for the specific contaminant.
   1. In the Plan Approval (PA) letter, include the preliminary monitoring and reporting information for informational/educational purpose. The preliminary monitoring/reporting information helps the water system in PLC and SCADA programming prior to completion of the project.
   2. The formal monitoring and reporting requirements must be included in the Operating Permit (OP).