Water Quality Standards

Highest Attainable Condition - overview

Willamette Mercury MDV Advisory Committee
December 10, 2018
Willow Lake Water Pollution Control Facility in Salem, Oregon

Highest Attainable Condition

1. Highest attainable interim criterion

or

2. Effluent condition with greatest pollutant reduction achievable

or

3. Effluent condition that optimizes current technology + pollutant reduction program

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Highest Attainable Condition

1. Highest attainable interim criterion

- Time limited alternate instream target for the waterbody
- Consider reductions from point *and* non-point sources
- Well modeled watershed
- Reasonably certain pollutant reductions
- Certain timeline for attainment

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Highest Attainable Condition

2. Effluent condition with greatest pollutant reduction achievable

- Surrogate for interim use and criterion
- If there are feasible technological upgrades
- Can estimate pollutant reduction targets
- Timeline (compliance schedule) for installing upgrades

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Highest Attainable Condition

3. Effluent condition that optimizes current technology + pollutant reduction program

- Surrogate for interim use and criterion.
- Additional technology not currently feasible.
- Pollutant reduction occurs through optimization of currently installed treatment technologies (well maintained and operated)
- pollutant minimization program

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Getting from HAC to Permit Requirements

- Effluent condition ≠ Effluent limit
- HAC option 1 – defined effluent limit based on alternate criterion.
- HAC option 2 – interim effluent limit based on recent data with compliance schedule to meet future effluent limit based on what's achievable with upgraded technology
- HAC option 3 – interim effluent limit based on recent data and MMP implementation requirement with re-evaluation at least every 5 years

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HAC Process for MDV

- HAC option 1 will not apply
  - Watershed not well modeled
  - Pollutant reductions from point sources small and uncertain

- So…how to decide if discharger will be in Option 2 or 3?
  - Identify if there are feasible wastewater treatment options.
  - Identify the greatest pollutant reduction achievable with the pollutant control technologies installed at the time of the variance and the adoption and implementation of an MMP.
  - If there are feasible treatment options that would result in greater pollutant reduction than MMP, determine if treatment is economically and environmentally feasible.

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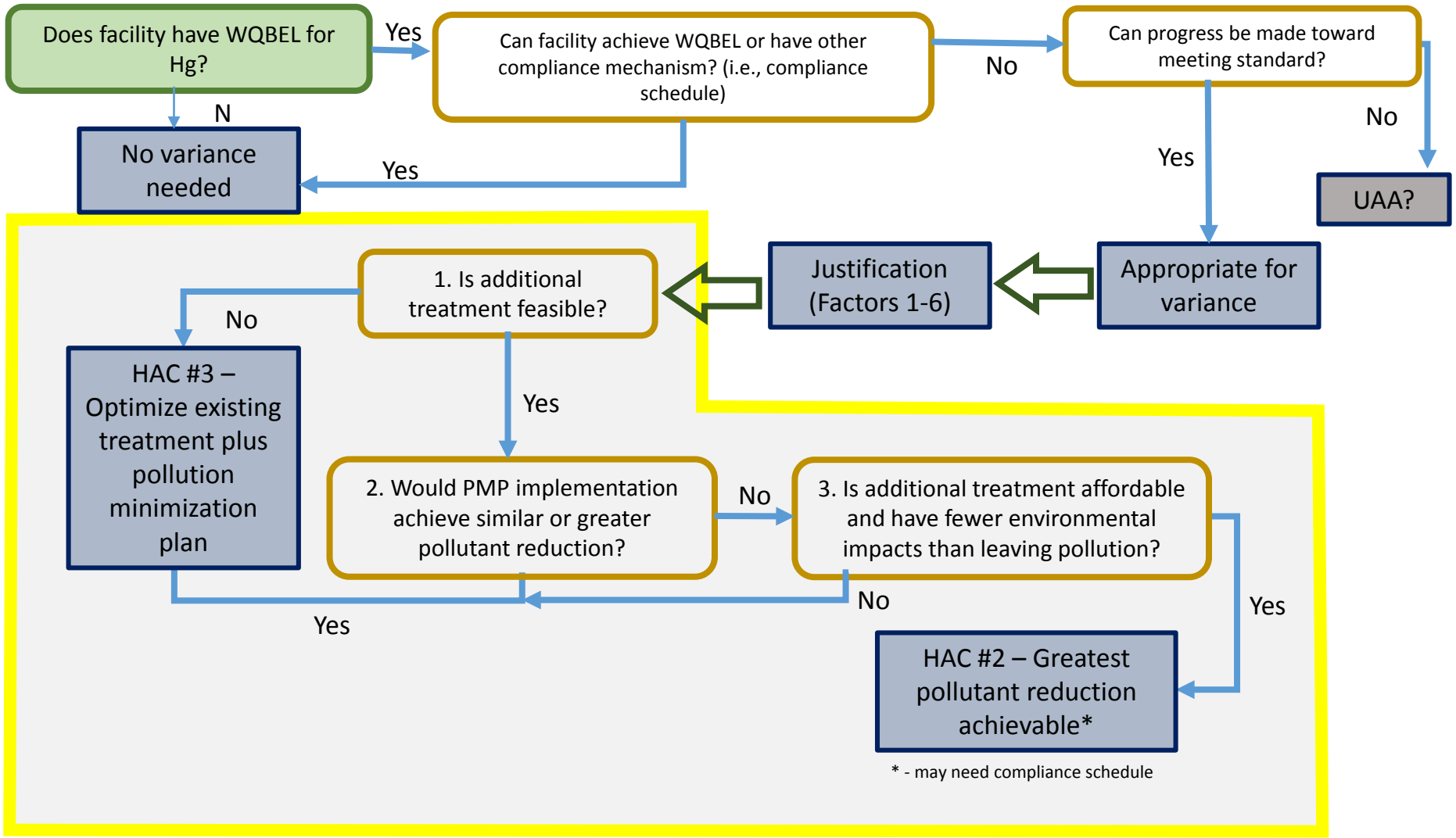
Does facility have WQBEL for Hg?
Yes
Can facility achieve WQBEL or have other compliance mechanism? (i.e., compliance schedule)
No
Can progress be made toward meeting standard?
N
No variance needed
Yes
Yes
No
UAA?
Justification (Factors 1-6)
Appropriate for variance
1. Is additional treatment feasible?
No
HAC #3 – Optimize existing treatment plus pollution minimization plan
Yes
2. Would PMP implementation achieve similar or greater pollutant reduction?
No
3. Is additional treatment affordable and have fewer environmental impacts than leaving pollution?
Yes
No
Yes
HAC #2 – Greatest pollutant reduction achievable*
* - may need compliance schedule

Other important notes

- Variance rule requires states to periodically re-evaluate the HAC to ensure feasible progress toward the standard (i.e., every 5 years).
- Establishing interim requirements allows states to implement adaptive management approach that drive progress toward meeting the designated use in a transparent and accountable manner.

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Questions and discussion

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