



ENERGY AND ENVIRONMENT CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WATER

300 SOWER BOULEVARD  
FRANKFORT, KENTUCKY 40601

**Mailing Address:** Drinking Water Branch  
ATTN: DBP Rule Manager  
300 Sower Blvd. 3<sup>rd</sup> Floor  
Frankfort, KY 40601

## Operational Evaluation Levels Report

The Stage 2 OEL process "predicts" TTHM and HAA5 results for the next compliance period. It provides a water system with a process for evaluating its entire system to identify ways to reduce future TTHM and HAA5 levels and avoid non-compliance.

- Once 3 quarters of Stage 2 DBP data is available, and then every quarter following, use Page 1 of this form to determine if one or more of the compliance monitoring sites have exceeded the Operational Evaluation Levels (OEL) for TTHM and/or HAA5. Use additional pages as needed.
- If the calculated OEL for any site exceeds the Maximum Contaminant Level (MCL), please complete and submit Page 2 to the State no more than 90 days after receiving notification of the analytical result.**
- This report includes an examination of system treatment and distribution practices, including storage tank operations, excess storage capacity, distribution system flushing, changes in sources or source water quality, and treatment changes or problems that may contribute to TTHM and HAA5 formation and what steps could be considered to minimize future exceedances.

To submit, you may mail the document or submit the document as an attachment to **EEC eForm 169, Drinking Water Information and Data Submittal.**

If you have any questions, please email us at [DrinkingWaterCompliance@ky.gov](mailto:DrinkingWaterCompliance@ky.gov).

You are not required to use this form; it is provided for your convenience.

Systems may submit other forms prepared by other entities or a letter, as long as the required information is included.

PWSID: \_\_\_\_\_ AI #: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
County: \_\_\_\_\_

Date of OEL Report: \_\_\_\_\_

Date of written approval for limited evaluation (if applicable): \_\_\_\_\_

| Site ID | Analyte | Results from<br>____ Qtr.<br>20____<br>(Two Quarters Ago)<br>in mg/L | Results from<br>____ Qtr.<br>20____<br>(Previous Quarter)<br>in mg/L | Results from<br>____ Qtr.<br>20____<br>(Current Quarter)<br>in mg/L | Operation<br>Evaluation Level<br>(OEL)<br><br>D= (A+B+(2*C))/4 | Check If Column D<br>Exceeds 0.080 mg/L<br>for TTHMs or 0.060<br>mg/L for HAA5.<br><br>If so, complete<br>Page 2 and submit<br>to DOW |
|---------|---------|--|--|---|--|---|
|         |         | A  | B  | C   |  |   |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |
|         | TTHM    |  |  |   |  | <input type="checkbox"/>  |
|         | HAA5    |  |  |   |  | <input type="checkbox"/>  |

**Unless the State has issued a written approval limiting the scope of the operational evaluation, Page 2 should be entirely completed.**

**Sample Collection and Handling**Were all TTHM and HAA5 samples collected and handled using proper SOPs? Yes  No Who collected the samples? PWS  Contract Lab Did sample collection and handling factors contribute to exceedance? Yes  No 

Other/Explain: \_\_\_\_\_

**Source Quality**Did source water quality factors contribute to exceedance? Yes  No *(check all that apply)*

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Point or non-point source contamination              | <input type="checkbox"/> Storage time longer than normal                     | <input type="checkbox"/> Heavy Rainfall or snowmelt |
| <input type="checkbox"/> New source placed on-line                            | <input type="checkbox"/> Algae bloom in source water                         | <input type="checkbox"/> Lake or reservoir turnover |
| <input type="checkbox"/> Stream flow rates/reservoir level higher than normal | <input type="checkbox"/> Stream flow rates/reservoir level lower than normal | <input type="checkbox"/> Long term drought          |

Other/Explain: \_\_\_\_\_

**Treatment Change/Problems**Did water treatment factors contribute to exceedance? Yes  No *(check all that apply)*

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Problem with clearwell operation     | <input type="checkbox"/> Increased filter effluent turbidity  | <input type="checkbox"/> Filters operated beyond capacity |
| <input type="checkbox"/> Abnormal influent turbidity          | <input type="checkbox"/> Coagulation/sedimentation problems   | <input type="checkbox"/> Excessive filter run-time        |
| <input type="checkbox"/> Abnormal influent temperature        | <input type="checkbox"/> Abnormal flow rates/short-circuiting | <input type="checkbox"/> TOC removal problems             |
| <input type="checkbox"/> Pre-disinfectant added/changed       | <input type="checkbox"/> Sludge blanket/carryover problems    | <input type="checkbox"/> Abnormal pH/Alkalinity           |
| <input type="checkbox"/> Disinfectant feed higher than normal |   |   |

Other/Explain: \_\_\_\_\_

**Distribution System**Did distribution system factors contribute to exceedance? Yes  No *(check all that apply)*

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Flushing (routine or compliant)           | <input type="checkbox"/> Fires or hydraulic disturbance                             | <input type="checkbox"/> Valves operated in vicinity |
| <input type="checkbox"/> Disinfectant residual lower than normal   | <input type="checkbox"/> High volume customer usage                                 | <input type="checkbox"/> Breaks or line replacements |
| <input type="checkbox"/> Disinfectant residual higher than normal  | <input type="checkbox"/> Water temperature higher than normal                       | <input type="checkbox"/> Booster chlorination        |
| <input type="checkbox"/> Water quality at Master Meter exceeds MCL | <input type="checkbox"/> Low volume customer usage (contributing to high water age) |  |

Other/Explain: \_\_\_\_\_

**Storage Tank Operations**Did water storage operations/factors contribute to exceedance? Yes  No *(check all that apply)*

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Tank removed from service | <input type="checkbox"/> Tank upstream from sample site | <input type="checkbox"/> Excessive storage capacity        |
| <input type="checkbox"/> Tank cleaned/maintenance  | <input type="checkbox"/> Operated "last in -first out"  | <input type="checkbox"/> Excessive ambient temperature     |
| <input type="checkbox"/> Excessive tank draw-down  | <input type="checkbox"/> Improper level fluctuations    | <input type="checkbox"/> Disinfectant residual low in tank |

Other/Explain: \_\_\_\_\_

**Additional Comments**
\_\_\_\_\_  
Signature\_\_\_\_\_  
Printed Name and Date

Contact Phone Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ Submitted.