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**USEPA COMMENTS AND DOE RESPONSES FOR
EVALUATING AND REHABILITATING THE MAIN
OUTFALL LINE**

XX-XX-XX

DOE-FMPC/USEPA

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ENCLOSURE

USEPA COMMENTS AND DOE RESPONSES FOR EVALUATING AND REHABILITATING THE MAIN
OUTFALL LINE

COMMENT:

1. U.S. DOE should state the purpose of the field work in the Work Plan Addendum.

RESPONSE:

This is not a Work Plan Addendum. The testing and rehabilitation activities described in the Evaluation of Alternatives document will be conducted as a Removal Action as stated in the Removal Action Memorandum.

COMMENT:

2. The procedures used to test the integrity of the pipeline are capable only of detecting leaks under low-pressure conditions, such as gravity flow in sewer pipe constructed of vitrified clay or concrete. The outfall pipeline is constructed of cast-iron and sections have operated under pressure flow conditions. Therefore, testing procedures may not have been sufficient to determine the structural weaknesses under past operating conditions. Also, the integrity testing is not adequate to determine the outfall pipeline's potential to leak under proposed operating conditions.

RESPONSE:

Since the pneumatic testing was performed, additional flow requirements have been proposed under the South Plume Removal Action. Under the proposed South Plume Removal Action, the effluent line could be surcharged, under high river level conditions, from Manhole 177 to the Great Miami River. The maximum pressure expected in the line has been calculated at 20 psi. Therefore, based on the information contained in the Evaluation of Alternatives document, the following approach is viewed as a more cost effective solution for rehabilitating the outfall pipeline: 1) installation of a new manhole near the Great Miami River, 2) Insituform relining of the effluent line from Manhole 177 to the Great Miami River with the ANSI/AWWA C600-87 ductile-iron hydrostatic testing performed as part of this installation, and 3) hydrostatically testing the pressurized manholes also according to the ANSI/AWWA C600-87 Standard.

COMMENT:

3. A more appropriate test method, such as pressure testing of the ductile iron, must be proposed.

RESPONSE:

As stated in the response to Comment 2, a component of the Insituform relining process the ANSI/AWWA C600-87 Standard will be utilized on the pipeline and pressurized manholes.

COMMENT:

4. None of the manholes were pressure tested.

RESPONSE:

As stated in the response to Comment 2, the pressurized manholes will be hydrostatically tested. In addition, a new manhole will be installed at the Great Miami River for future maintenance and testing purposes.

COMMENT:

5. The results of the integrity testing cannot be used to determine the potential for leaks under proposed operating conditions. Additional testing should be proposed (as state above) to include pressure testing to 150 percent of the maximum expected flow (pressure). This is necessary to demonstrate that the effluent line is suitable to handle the proposed added flows.

RESPONSE:

As stated above, the ANSI/AWWA ductile-iron standard will be utilized to test the rehabilitated pipeline as a component of the Insituform process. Similarly, the pressurized manholes will be hydrostatically tested after the relining process is completed. The Removal Site Evaluation evaluates the potential health effects associated with the potential leaking effluent line under past operating conditions; along with the soil and groundwater sampling and analysis activities, which are planned as a component of the RI/FS activities, the relative magnitude of threat can be determined. The specific RI/FS soil and groundwater sampling and analysis activities which are planned are outlined below.

The planned sampling and analysis will consist of the installation of a 2,000 series monitoring well near Manhole 180, which will function to assess the impact of any contamination that may have been channeled along the pipeline backfill material. This well will be sampled for full HSL, full radiological, and general groundwater parameters. Additionally, three borings between Manhole 179 and 180 will be installed to assess any pipeline leakage in the soil surrounding the pipeline. A magnetometer will be used to pinpoint the line and the borings will be located as close as possible to the pipeline. The borings will be sampled for full radiological and full HSL analysis as defined in the proposed addendum of the RI/FS Work Plan beginning at a depth of two feet above the crown of the pipeline. Each boring will consist of four split-spoon samples.

COMMENT:

6. Two methods of testing the last section of the effluent line (from Manhole 180 to the Great Miami River) would provide additional information. First, it may be possible to position a plug at the end of the last section of the pipeline from an upstream location (i.e., Manhole 179). Second, the river may provide enough pressure at high water stages to conduct the low-pressure integrity test.

RESPONSE:

The installation of a new manhole near the Great Miami River is being proposed. This new Manhole will greatly aid in the installation of the Insituform liner as well as facilitate future maintenance and testing activities on the effluent line.

COMMENT:

7. The section of pipeline between Manholes 179 and 180 failed the integrity testing; however, no soil samples were collected from this last section. Soil sampling and possibly groundwater monitoring is required.

RESPONSE:

As discussed in the response to Comment # 5, soil and groundwater sampling and analysis activities for the region between Manholes 179 and 180 have been planned under the RI/FS Work Plan Addendum