New Jersey Department of Environmental Protection
Site Remediation Program

Report Certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites

These certifications are to be used for reports submitted for RCRA GPRA 2020, CERCLA, and Federal Facility Sites. The Department has developed guidance for report certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites under traditional oversight. The "Person Responsible for Conducting the Remediation Information and Certification" is required to be submitted with each report. For those sites that are required or opt to use a Licensed Site Remediation Professional (LSRP) the report must also be certified by the LSRP using the "Licensed Site Remediation Professional Information and Statement". For additional guidance regarding the requirement for LSRPs at RCRA GPRA 2020, CERCLA and Federal Facility Sites see http://www.nj.gov/dep/srp/srra/training/matrix/quick_ref/rcra_cercla_fed_facility_sites.pdf.

Document: "Response to NJDEP's June 3, 2016 Comments on the April 2016 Final Remedial Investigation Report for FTMM-08 (& Landfill Boundary Refinement for FTMM-08 dated January 2016)"

PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: William R. Colvin
Representative First Name: William Representative Last Name: Colvin
Title: BRAC Environmental Coordinator
Phone Number: (732) 380-7064 Ext: Fax:
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This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: William R Colvin Date: 11 October, 2016

Name/Title: William R. Colvin / BRAC Environmental Coordinator

DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
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October 11, 2016

Ms. Linda Range
New Jersey Department of Environmental Protection
Bureau of Case Management
401 East State Street
PO Box 420/Mail Code 401-05F
Trenton, NJ 08625-0028

Subject: Response to NJDEP's June 3, 2016 Comments on the April 2016 *Final Remedial Investigation Report for FTMM-08 (& Landfill Boundary Refinement for FTMM-08 dated January 2016) for Fort Monmouth, New Jersey*
PI # G000000032

Dear Ms. Range:

The Fort Monmouth (FTMM), the U.S. Army Corps of Engineers (USACE) and Parsons have reviewed the New Jersey Department of Environmental Protection (NJDEP) comments on the Methane Gas Survey portion of the Final Landfill Boundary Refinement and Methane Gas Survey Report for Nine Landfills as documented in your letter dated June 3, 2016. Responses to your comments are provided below in the order in which they were presented in the comment letter.

A. <u>Soil Analytical Results</u>

A. COMMENT:

Elevated levels of pesticides, priority pollutant metals, PAHs, and PCBs have been noted in the soil. Levels of PCBs have been found which require additional remedial action, see below, however, the remaining contaminants of concern are to be addressed via engineering and institutional controls. Addressing all known remaining levels of contamination in this manner is acceptable pending compliance with comments as noted below. If areas of obvious and/or significant contamination are encountered during the landfill preparation or capping activities, it is possible additional hot spot removal may be necessary.

As has been discussed, all previously noted sample locations containing elevated levels of contamination are to be addressed via engineering and institutional controls (none may remain beyond the area undergoing capping). Figure 9.1, although not created for this purpose, displays all historic boring locations relative to the FTMM-08 Landfill 2015 Revised Boundary, and demonstrates each boring is located within the noted boundary.

A. RESPONSE:

FTMM concurs that PCBs require additional remedial action and will be addressed as discussed in the following response. The proposed remedy as described in the April 2016 FTMM-08 Remedial Investigation Report (RIR) remains the same, and contaminants of concern other than PCBs will be

addressed via the NJDEP Site Remediation Program (SRP) policy that allows for contaminants with appropriate institutional and engineering controls to be non-permanently remediated as long as the remedy is found to be protective of human health and the environment.

B. PCBs

B. COMMENT:

PCBs have been noted at numerous locations within the landfill at levels exceeding both NJDEP and USEPA regulatory concern, and as referenced in the submittal, at several locations above that requiring additional action under the NJDEP Guidance on Coordination of NJDEP and USEPA PCB Remediation Policies.

Correction of/clarification to a sentence on page 9-4, line 34/35 as well as Figures 9.1 and 9.2 is necessary. The sentence in question states "three areas were identified that have PCB concentrations in soil above the 1 mg/kg NJDEP non-residential direct contact standard (Figure 9.1)." Although it is agreed three areas were identified which contain greater than 25 mg/kg, identified as "A", B" and "C" on Figure 9.1, boring locations B63 (PCBs 4.763 mg/kg), B214 (PCBs 3.268 mg/kg), B140 (PCBs 1.416 mg/kg), B153 (PCBs 20.06 mg/kg) and B158 (PCBs 4.623 mg/kg) also contain PCBs above the 1 mg/kg NJDEP non-residential direct contact standard (NRDCS). Figures 9.1 and 9.2 indicate boring location B-158 exhibits less than 1 mg/kg, however, the analytical data indicates 4.623 mg/kg is present at that location.

A pre-design investigation to determine the lateral and vertical extent of PCBs greater than 25 ppm is to be performed, as appropriate. The proposal for subsequent removal of all PCBs > 25 ppm is acceptable to the Department.

Please note, following characterization, and at least 30 days prior to remedial activities, notification to the EPA must be made, as per the Self-Implementing Cleanup provisions at §761.61(a)(3).

B. RESPONSE:

We acknowledge that PCBs at several locations are present at concentrations that exceed both the NJDEP and USEPA regulatory standards. In September 2016, FTMM performed the pre-design investigation to determine the lateral and vertical extent of PCBs greater than 25 ppm for remediation (i.e., excavation). FTMM submitted a letter to NJDEP outlining the proposed approach for the PCB delineation at select landfills, including M-8. In accordance with NJDEP's previous request for the M-2 landfill, FTMM will ensure that for M-8 pre-design investigation results submittals include figures with sample locations and depths, and specific contaminant concentrations to allow for confirmation of adequate delineation and removal per N.J.A.C. 7:26E-1.6(b)8(2). Note that the RIRs for the FTMM landfills, with the exception of FTMM-25, have been submitted to the NJDEP at the time of this letter, as such figures as described in this response will not be submitted for the landfill RIRs.

FTMM reviewed the language on page 9-4, line 34/35, and the PCB concentrations presented on Figures 9.1 and 9.2 and we were able to verify some but not all of the concentrations cited in comment B. The PCB concentrations for the five locations identified in Comment B were verified against the laboratory reports and compared to the results presented on the RIR figures. Our review of the analytical data confirmed the NJDEP's findings for B140 (1.146 mg/kg) and B158 (4.623 mg/); however, our review indicates that the PCB concentration identified in the comment for B63 (4.763 mg/kg) is for B64. The

PCB concentrations identified for B214 (3.268 mg/kg) and B153 (20.06 mg/kg) are correct, however these borings are located outside of areas "A", "B", and "C".

Recognizing the locations with PCBs above 1 mg/kg identified in the comment, it is important to note that Figures 9.1, 9.2, and 9.3 focus on areas with a) multiple boring locations with PCB concentrations greater than 1 mg/kg; b) boring locations with PCB concentrations greater 25 mg/kg that require further delineation and removal (i.e., Areas A, B and C). While we recognize that borings B64, B214, and B153 have PCB concentrations greater than 0.2 mg/kg and are outside the blue areas shown on the figures, the PCBs concentrations are less than 25 mg/kg and these isolated exceedances of the residential DCSRS are delineated by adjacent borings. Since these isolated PCB concentrations in the identified borings will be addressed via engineering and institutional controls, we are not proposing to revise the figures at this time.

C. <u>Landfill Boundary</u>

C. COMMENT:

The landfill boundary as revised in 2015 and as indicated on Figure 9.1 of the RI/FS and Figure E1 appears to adequately incorporate the area as supported by historic aerial photographs, and all boring locations at which analytical results exceeded standards/criteria, as well as trench/test pit locations at which waste material was found.

C. RESPONSE:

FTMM concurs with NJDEP's assessment of the FTMM-08 landfill boundary in comment C.

D. <u>Ground Water</u>

D. COMMENT:

The proposal for the establishment of a Classification Exception Area (CEA) with long term monitoring (monitored natural attenuation) to address ground water contamination is acceptable. However, certain issues require clarification, based upon a previous report submittal. In the Final Annual (Fourth Quarter) 2014 Ground Water Sampling Report dated December 2015, results from the 2014 sampling event at the FTMM-08 landfill exceeded the Ground Water Quality Standards (GWQS) for PCE and pesticides. That report recommended continued annual ground water sampling of well M8MW11 for VOCs and lead, M8MW12 for VOCs and 697MW01 for pesticides and VOCs. The report also recommended discontinuing the sampling of M8MW15, M8MW16, M8MW17, M8MW2l and RM8MW24. Please confirm these recommendations are undergoing implementation as the Department approved same in a letter dated January 26, 2016.

The RIFS submittal indicates a proposed CEA would address only PCE and benzene.

However, manganese exceeds the GWQS in ground water. The submittal states the manganese exceedance is due to fuel hydrocarbons such as benzene causing reducing conditions, resulting in the releasing of manganese in soils into the ground water. As such, manganese must also be included as a contaminant of concern in a proposed CEA.

Levels of pesticides above the GWQS had been noted during previous sampling. The pesticide 4,4-DDD was found in a sample from well 697-MWOl at a concentration exceeding the GWQS during the October 2014 sampling event. Pesticides must also be included as a CEA contaminant of concern.

When submitting the CEA proposal, please complete the CEA/Well Restriction Area Fact Sheet Form or equivalent.

D. RESPONSE:

The Final Annual (Fourth Quarter) 2014 Ground Water Sampling Report dated December 2015, proposed continued annual sampling, of M8MW11 for VOCs and lead, M8MW12 for VOCs, and 697MW01 for pesticides and VOCs. These recommendations were followed for the 2015 LTM sampling event currently under review by the USACE and FTMM.

To clarify, future groundwater sampling at FTMM-08 will be performed and reported under a proposed CEA, as the RIR for this site has been completed and a CEA is recommended in the RIR. At the RI phase in the remedial process, future sampling and reporting under a CEA is consistent with N.J.A.C. 7:26E-4.3(a)7 and 7:26E-4.9(a)7. The proposed CEA will follow the procedures required by the NJDEP, which currently include the completion of the CEA/Well Restriction Area fact Sheet Form, and will be prepared following acceptance of the RI/FS. This strategy to submit a monitoring plan as part of a CEA following the acceptance of the RI/FS is similar to the strategy at FTMM-22, FTMM-53, FTMM-59, and FTMM-68 which was approved on March 16, 2016 by the NJDEP.

In the M-8 RI/FS, benzene and PCE were proposed to be included in the CEA. However, when the CEA/Well Restriction Area fact Sheet Form is submitted, the list of constituents to be monitored will be based on recent representative data. Based on a review of recent representative data, including 2013, 2014, and 2015 LTM data, the CEA submittal will include PCE, 4-4'-DDD, and lead. Manganese as well as other metals were not sampled during recent events, however based on exceedances in 2011 in M8MW11, M8MW14, M8MW15, M8MW16, M8MW17, M8MW18, M8MW19, M8MW20, and M8MW23 manganese will also be included. Benzene did not exceed the GWQS in 2013, 2014, or 2015, and will not be included. To summarize, based on the most recent available data, at this time the proposed CEA will include, the following constituents: PCE, 4-4'-DDD, lead, and manganese.

E. <u>Proposed Remedy</u>

E. COMMENT:

Following removal of PCBs greater than 25 ppm, the landfill is to be cleared, regraded, and covered with a vegetated (or functional equivalent) two foot cap of clean soil. A vegetated soil cover of two feet of clean fill, the implementation of a LUC through filing of a deed notice with its incumbent inspection and reporting requirements (and in association with the proposed CEA if amended as necessary), was previously deemed appropriate and is acceptable. Although conceptually feasible, a "functional equivalent" in lieu of the vegetated layer must be proposed and reviewed for appropriateness once specifications are known, to ensure "functional equivalency".

E. RESPONSE:

FTMM is currently working with the Fort Monmouth Economic Redevelopment Authority (FMERA) to identify landfills where a functional equivalent (e.g., expanded parking lot) maybe installed rather than the vegetated soil cover. Information on the proposed landfill cover design including those landfills where a functional equivalent cover maybe installed will be presented in the *Draft Conceptual Design Report for Nine Landfills*. It is anticipated that this report will be submitted to the NJDEP after comments are

received on the nine RIR FTMM landfill reports, and on the *Landfill Boundary Refinement and Methane Gas Survey Report for Nine Landfills*.

F. Miscellaneous

F. COMMENT:

Boring location 10, found on Figure E1, Appendix E of the January 2016 Landfill Boundary Refinement submittal, which was performed on northwest of Building 292, exhibited no waste material, and is located beyond the boundary of FTMM-08. Evidence of petroleum in the soil and on the ground water (a sheen was observed), however, were noted. Was/is investigation of this contamination incorporated into remedial activities at Parcel 49?

F. RESPONSE:

Investigation of boring location 10 was not incorporated as part of the remedial activities at Parcel 49. A separate letter and/or work plan will be submitted to NJDEP at a later date to address boring location 10.

Should you have any questions or require additional information, please contact me at (732) 380-7064 or by email at william.r.colvin18.civ@mail.mil.

Sincerely,

William R. Colvin, PMP, PG, CHMM
BRAC Environmental Coordinator

cc: James Moore, USACE (e-mail)
Cris Grill, Parsons (e-mail)