



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 Comments to NJDEP Comments on Final Remedial Investigation Report for FTMM-12 dated August 2015 (and Landfill Boundary Refinement for FTMM-12 only 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

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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:

Date: 29 November, 2016

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



DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
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November 29, 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: *Final Remedial Investigation Report for FTMM-12 dated August 2015 (& Landfill Boundary Refinement for FTMM-12 only dated January 2016)*
Fort Monmouth, Oceanport, New Jersey
PIG000000032

Dear Ms. Range:

The Fort Monmouth (FTMM) team has reviewed the New Jersey Department of Environmental Protection (NJDEP) comments (letter dated July 5, 2016) on the subject submittals. Responses to the comments are provided below in the order in which they were presented in the comment letter.

A. Soil Analytical Results

A. COMMENT: *Elevated levels of predominantly priority pollutant metals and PAHs (PCBs were non-detect) have been noted, however, contaminants of concern are to be addressed via engineering and institutional controls. Addressing all known 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 previously discussed, all historically 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).

A. RESPONSE: The proposed remedy as described in the August 2015 FTMM-12 Remedial Investigation Report (RIR) remains the same, and contaminants of concern will be addressed via the NJDEP Site Remediation Program (SRP) policy since 1993 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. Institutional controls (i.e. deed notice) will be implemented at FTMM-12 as soil concentrations

are above their respective NJDEP residential direct contact soil remediation standards (RDCSR). Engineering controls (i.e. a cap) will also be implemented at FTMM-12 to address safety concerns and to protect non-residents from future exposure to solid waste at the landfill. A secondary benefit of the cap will be to prevent future exposure of soil concentrations above their respective NJDEP non-residential direct contact soil remediation standards (NRDCSR). The applicable controls will be applied based on the level of contamination.

B. Landfill Boundary

B. COMMENT: *The boundaries of the landfill were further refined beyond those indicated on Figures 1.3 or 2.1 of the RIR. Although largely acceptable, this office does not entirely agree with the revised boundaries as shown on Figure F1, Appendix F of the January 2016 Landfill Boundary Refinement and Methane Gas Survey Report for Nine Landfills, based upon findings in the testpit and boring field logs (e.g. B94, B95, B102, B109, B115, where cinders were encountered at depth, and/or elevated levels of soil contamination were reported, and which appear to be outside of the revised boundary, as well as M12TP5, M12TP18, and M12MW22).*

M12TP5 encountered "some" concrete and coal from 2-4' near Building 975, signifying fill material. Building 975 was present in the 1957 aerial, replacing those building noted in the 1947 aerial.

M12TP18 is located at the northwest corner of Building 909, and is shown as beyond FTMM-12 boundaries on Figure F1 of the Landfill Boundary Refinement report. However, this same figure notes landfill solid waste was present, and the test pit field log indicates ash/coal and waste were noted from 1-1.5'. As such, the material must be addressed.

M12TP39 is denoted on Figure F1 of the Landfill Boundary Refinement report as outside the landfill boundary and as containing no waste, however, the test pit field log indicates "waste – ash, slag, coal" were present from 0.5-1.0' and must be addressed accordingly.

Monitor well M12MW22 lies beyond what is denoted as FTMM-12 landfill boundary. Elevated lead was found in soil at 24-30" at MW22-F, while elevated levels of arsenic in soil were found at varying depths at several locations in this area. Historic aerials appear to indicate the area was disturbed during at least a portion of FTMM-12's operational timeframe. Please indicate how these elevated levels of soil contamination are to be addressed.

B. RESPONSE: FTMM reviewed the field logs for the test pit and borings identified by NJDEP in Comment B.

FTMM disagrees with NJDEP on their assessment of M12TP5, M12TP18, and M12TP39, and maintains that debris of a scattered nature and or *de minimus* quantity does not constitute a landfill. The solid waste regulations (N.J.A.C. 7:26-1.4) define a landfill as a solid waste facility, at which solid waste is deposited on or into the land as fill for the purpose of permanent

disposal or storage for a period of time exceeding six months. As the contents of the test pits demonstrate, FTMM-12 contains primarily construction and demolition debris which do not constitute a landfill under the solid waste regulations definition. We made a judgment for FTMM-12 on a case-by-case basis that some debris (of a scattered nature and *de minimus*) in selected test pits did not constitute a landfill, which we believe is reasonable and appropriate given the wide variety of activities at FTMM over many decades. Although FTMM disagrees with the NJDEP regarding the landfill boundary, FTMM will excavate the material contained in M12TP5, M12TP18, and M12TP39 and relocate it within the landfill boundaries. Due to the shallow extent of the material (of a scattered nature and or *de minimus* quantity) present in these test pits, relocation of the material to within the landfill boundary is proposed to include this material under the proposed engineering control landfill cover. The landfill boundary in this area will not be revised.

Soil borings B94, B95, B102, B109, and B115 were observed to contain cinders at depths ranging to 22.5 to 36 inches bgs. Due to the shallow extent of the material present in these soil borings, relocation of the material to within the landfill boundary is proposed to include this material under the proposed engineering control landfill cover.

Four of these soil borings, with the exception of B115, also had arsenic concentrations greater than the residential and non-residential DRCSRS (19 mg/kg) in surface samples from 6 to 12 inches bgs, however, the chemical concentrations in soil do not play a part in determining the landfill boundary. Due to the location of the soil borings that contain cinders of a scattered nature and or *de minimus* quantity at depth and arsenic concentrations above the NRDCSRS outside the proposed landfill boundary and adjacent to a roadway, FTMM will either delineate and over excavate to native material contained in these soil borings and relocate the excavated soils within the proposed landfill boundaries or extend the proposed cap to include this material under the proposed engineering control landfill cover.

In addition, FTMM would like to reiterate that the landfill boundaries are based on the presence of landfill waste, and not based on the presence of contamination. The presence of landfill material and soil contamination are two separate issues; contamination alone does not define landfill boundaries. However; there may be synergies when it comes to a remedy (i.e., a cap), as both landfill material and soil concentrations above the NRDCSRS require an engineering control (e.g., cap), whereas soil above a RCDSRS requires only an institutional control (deed notice).

Supplemental soil samples taken around M12MW22 indicated arsenic concentrations greater than the non-residential and residential DCSRS (19 mg/kg) at depths ranging from 0 to 66 inches bgs, and lead concentrations greater than the residential DCSRS (400 mg/kg) from 24 to 30 inches bgs. FTMM will either delineate and over excavate to native material contained in these soil borings and relocate excavated soils within the proposed landfill boundaries or extend the proposed cap to include this material under the proposed engineering control landfill cover. This determination will be based on further evaluation and a cost-benefit evaluation. The landfill boundary in this area will not be revised.

C. Proposed Remedy

C. COMMENT: *The landfill is to be cleared, regraded, and covered with a vegetated 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, was previously deemed appropriate and is acceptable.*

C. RESPONSE: FTMM concurs with the proposed remedy stated by NJDEP for FTMM-12 in Comment C.

D. Miscellaneous

D. COMMENT: *Historic sampling of ground water at this parcel revealed exceedances of various metals. Exceedances of the metals in ground water at FTMM-12, with the exception of lead, were determined attributable to background quality. Subsequent sampling for lead analysis only found the detection of no lead, and the Department agreed in July of 2014 with the recommendation to discontinue the long term ground water monitoring at FTMM-12.*

As previously discussed with the Army, however, although AOC or parcel specific investigations have confirmed the presence of naturally occurring levels of metals at specific areas of the site, the Department did not approve the site-wide background soil or ground water quality investigations referenced in the submittal, e.g. the Weston 1995 Background Investigation or 2011 Brinkerhoff Background Metals Evaluation.

D. RESPONSE: FTMM agrees with the NJDEP's description of the metals in groundwater and that the LTM program was discontinued at FTMM-12 in 2014. In addition, FTMM acknowledges that the site-wide background soil and ground water quality investigations referenced in the submittal have not been approved by NJDEP.

We look forward to your review of these responses and approval of the FTMM-12 RIR and the FTMM-12 portion of the *Landfill Boundary Refinement and Methane Gas Survey Report for Nine Landfills*. Should you have any questions or require additional information, please contact me by phone at (732) 380-7064 or by email at william.r.colvin18.civ@mail.mil.

Sincerely,



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

Linda S. Range, NJDEP
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Final RIR for FTMM-12
November 29, 2016
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cc: Linda Range, NJDEP (e-mail and 3 hard copies)
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