State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Case Management
401 East State Street
P.O. Box 420/Mail Code 401-05F
Trenton, NJ 08625-0028
Phone #: 609-633-1455
Fax #: 609-633-1439

BOB MARTIN
Commissioner

July 5, 2016

William Colvin
BRAC Environmental Coordinator
OACSIM – U.S. Army Fort Monmouth
PO Box 148
Oceanport, NJ 07757

Re: *Final Remedial Investigation Report for FTMM-12* dated August 2015
(& *Landfill Boundary Refinement* for FTMM-12 only dated January 2016)
Fort Monmouth
Oceanport, Monmouth County
PI G000000032

Dear Mr. Colvin:

The New Jersey Department of Environmental Protection (Department) has performed a review of the referenced report, received on August 20, 2015. The review did not include an evaluation of the Risk Assessment, but did include an assessment of the boundary modification information applicable to FTMM-12 provided in Section 2.1 and Appendix F FTMM-12 of the January 2016 *Landfill Boundary Refinement and Methane Gas Survey Report for Nine Landfills*; comments generated from said review are included. Comments regarding the Methane Gas Survey portion of that document were previously provided; see the Department's correspondence dated April 20, 2016, which described additional methane monitoring requirements. Comments relative to the Remedial Investigation (RI) as well as the landfill boundary refinement efforts are as follows:

Soil Analytical Results

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).

Landfill Boundary

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 test pit 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 in 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.

Proposed Remedy

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.

Miscellaneous

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.

Please contact this office with any questions.

Sincerely,

Linda S. Range

Linda S. Range

C: Joe Pearson, Calibre
James Moore, USACE
Rick Harrison, FMERA
Joe Fallon, FMERA
Frank Barricelli, RAB
Ann Charles, BEERA
Daryl Clark, BGWPA