



State of New Jersey

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August 25, 2015

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

Re: *Underground Storage Tanks Within ECP Parcel 79 dated April 2015*
Fort Monmouth
Oceanport, Monmouth County
PI G000000032

Dear Mr. Occhipinti:

The New Jersey Department of Environmental Protection (Department) has completed review of the referenced report, received April 28, 2015, prepared by Department of the Army Office of Assistant Chief of Staff for Installation Management to provide responses to NJDEP letters of July 10, 2012 and May 30, 2013, and to provide a comprehensive documentation of the location and "closure status" of USTs identified within ECP Parcel 79.

Identification of the USTs in the submittal was made based upon review of historic records as well as the past performance of various geophysical/magnetometer surveys. As indicated in the report (and substantiated in Attachment D), twenty nine (29) USTs have previously received a designation of No Further Action (NFA) necessary from the Department. The submittal (page 7 of 7) proposes sufficient activity has taken place to allow for NFA of the entire Parcel 79 with the exception of an unused UST at Building 446 (which apparently did not undergo sampling) and the ground water at two of the USTs (UST 202D and UST 490), however, this office does not agree with same, and additional comment is warranted.

Attachment E -Areas 74 & 75 – Aboveground Storage Tanks & Associated Piping

Area 75 – Aboveground Storage Tanks

Two 210,000 gallon aboveground storage tanks, utilized from the 1940s through the 1980s, were removed in May of 1995. Based upon a review of the analytical results and chain of custody

(COC) as well as a conversation with Joe Fallon this date, who collected the samples, it appears 13 samples were collected in the proximity of AST A – all analytical results were below 1000 ppm, and 15 samples in the proximity of AST B. Per Mr. Fallon, the samples would have been collected both at/along the perimeter and within the footprint/center of the former ASTs, mainly at 0-6", but also at deeper intervals (as indicated on the COCs). Although it appears sampling frequency and location may have been adequate, it is unclear the analytical parameter requirements, either those in effect at the time of sampling or currently in effect, were met as regarding contingency analysis for AST B. Of the 15 samples apparently collected for AST B, 5 exceeded the trigger for additional analyses on 25% of those exceeding 1000 ppm (VOs+10 at the time of sampling, 2-methylnaphthalene and naphthalene per current guidance). It is also unclear where the ground water sampling points referenced for Area 74 were located relative to the former ASTs of Area 75?

Area 74 – Associated Piping

As per Enclosure 4 of Attachment E, the underground piping was previously NFAed.

Underground Storage Tanks

In addition to those USTs previously granted a designation of NFA, it is agreed no further action is necessary for the following #2 fuel USTs:

- UST 29-1 – 1000 gallon steel
- UST 142A – 1000 gallon steel; C93-3714
- UST 401-26 – 1000 gallon steel
- UST 416-32 – 1000 gallon steel
- UST 430B-45 – 550 gallon tank*; C93-3987

*note – page 1, Section 1.1 and scrap receipt each indicate UST was steel; Att B states fiberglass

- UST 443-49 – 1080 gallon steel
- UST 474 – 1000 gallon steel

Although the 2008 Site Investigation previously performed did include ground water sampling, a review of the sampling points did not indicate they were placed within distances sufficient to allow for adequate evaluation of the USTs referenced below. Based upon soil contamination extending to within 2' of, and in many cases, into the ground water table (GWT), a ground water investigation is necessary at the following UST locations (the elimination of the sheen via excavation, as referenced for USTs 441, 444 is insufficient):

- UST 142B (Attachment H)
- UST 437 (Attachment Q)
- UST 440 (Attachment R)
- UST 441 (Attachment S)
- UST 444 (Attachment U)
- UST 448 (Attachment W); please specify if well P79-E2 is sufficiently proximate to
comply with regulations/guidance
- UST 449 (Attachment X)

UST 450 (Attachment Y)
UST 451 (Attachment Z)

Though it is understood no evidence was found of a tank remaining in the below referenced locations during geophysical or trenching activities, a tank was noted as present in historic Army material, e.g. 1956 Fuel Storage Map, while Attachment 1 indicates heating oil USTs may remain between Tilly Avenue and Leonard Avenue. No soil sampling was apparently performed in any of these locations. Unless all tanks, former or current, have been evaluated in accordance with the applicable Departmental regulations and guidance documents, the NJDEP cannot comment as to the absence or presence of a petroleum discharge. The request on page 7 of 7 for designation of an NFA for the following USTs cannot be granted unless the necessary sampling is performed at each:

- UST/Bldg. No. 168 (Attachment I)
- UST/Bldg. No. 169 (Attachment I)
- UST/Bldg. No. 407
- UST/Bldg. No. 415
- UST/Bldg. No. 424
- UST/Bldg. No. 425
- UST/Bldg. No. 435 (Attachment P)
- UST/Bldg. No. 438
- UST/Bldg. No. 442
- UST/Bldg. No. 455 (Attachment V)
- UST/Bldg No. 456 (Attachment AA consisted of only analytical data, from a single sample - 6-12"; information provided is insufficient for evaluation/comment)
- USTs/Bldg. No.s 457 through 467
- UST/Bldg. No.s 469 through 473
- UST/Bldg. No. 476
- UST/Bldg. No. 488
- UST/Bldg. No. 489

While not indicated as present on the 1956 Fuel Storage map, nor found during geophysical survey activities, the 2014 ECP UHOT Report indicates a potential for the presence of an UST at several additional locations. Although no tank was found, insufficient information (sampling) has been submitted to allow for comment as to the presence or absence of a discharge for the following:

- UST/Bldg. No. 170 (Attachment I)
- UST/Bldg. No. 171 (Attachment I)
- UST/Bldg. No. 408
- UST/Bldg. No. 436
- UST/Bldg. No. 468

Attachments J, K & L – USTs at Former Building 202

Four USTs were noted as present, and removed (although the ECP UHOT report indicates high potential for the continued presence of two USTs), at the former building, the specific locations of which two (202A & 202B), were not indicated. Although apparently no discharge was associated with USTs 202B or 202C (the submittal implies no soils were removed at either UST prior to the sampling which indicated non-detect TPH levels), discharges were associated with both USTs 202A and 202D.

The affected soils at UST 202A were removed to 5.5', likely extending to within 2' of or into the ground water table, in this area, and contained almost 8,000 ppm TPHC, the level referenced in the Department's guidance (<http://www.nj.gov/dep/srp/guidance/rs/#phc>) as the residual product/free product limit. As such, it is possible former UST 202A could have contributed to the levels of ground water contamination noted at UST 202D. An NFA at this time is, therefore, not appropriate.

As indicated in the submittal, ground water was found to contain benzene at low levels, 2-methylnaphthalene, and BN TICs in a sampling event performed in June of 2011 at UST 202D. An NFA of the soils, as requested, is not appropriate at this time. Insufficient information is known relative to the ground water contamination in the area, including the current extent or levels of contamination.

Attachment CC/UST 490- aka UST 490-58

Although a Site Assessment Compliance Statement and Standard Reporting Form for tank removal are reported in Attachment CC as submitted to the DEP in 1991, as indicated in the submittal, there is no record of NFA approval from the NJDEP; no soil sampling had been performed at that time.

Soil sampling collected from the 6-6.5' interval was performed in 2005, indicating levels of TPH ranged from 2981 to 8762 ppm, with VOs below criteria. Ground water samples were below the Ground Water Quality Standards (GWQS) in effect at the time, however, no report was submitted; 2-methylnaphthalene was found at 32.13 ppb. Additional sampling (actual locations of which are unclear) performed in May of 2010 (prior to phase-in of EPH), at the 3.5-4' interval – the rationale for selection of that interval is unreported - found TPH ranging from ND to 5941.76 ppm. Although the required contingency sampling was reported as exhibiting no exceedences in the submittal, the Impact to Ground Water Standard for 2-methylnaphthalene of 8 ppm was exceeded in Sample B4, with a result of 30.32 ppm. Ground water sampling conducted in May and July of 2010 found elevated levels of 2-methylnaphthalene, as well as elevated BN TICs.

No figure identifying the location of the May 2010 sampling was provided, however, it appears contamination above the 5100 ppm criterion may be present from at least the 3.5 to the 6.5' interval, and deeper. TPH/EPH cannot exceed the residual product/free product limit of 8,000 mg for No. 2 fuel; 2-methylnaphthalene above standard in the soil as well as the ground water is

present. Compliance averaging of the soils is not appropriate. Additional characterization of the ground water contamination is required. The current conditions of the ground water and the extent of any contamination must be determined, at which time further decisions regarding remedial requirements may be determined..

Please contact this office if you have any questions.

Sincerely,



Linda S. Range

C: Joe Pearson, Calibre
Rich Harrison, FMERA
Joe Fallon, FMERA
James Moore, USACE
Frank Barricelli, RAB