



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch

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Atlanta, Georgia 30334
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November 2, 2016

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

NOV 08 2016

Mr. Robert R. Baumgardt
Director, Public Works
Headquarters, 3D Infantry Division (Mechanized) and Fort Stewart
Directorate of Public Works, Building 1137
Environmental Branch (ATTN: Algeana Stevenson)
1550 Veterans Parkway
Fort Stewart, Georgia 31314-4927

Re: Response to Comments and Revised Final Resource Conservation and Recovery Act (RCRA) Facility Investigation Work Plan for Four Military Munition Response Program (MMRP) Sites

Dear Baumgardt:

The Land Protection Branch of the Georgia Environmental Protection Division (EPD) has reviewed Fort Stewart's response to EPD's comments transmitted via email (Hanley to Stevenson) on May 25, 2016 and *Revised Final RCRA Facility Investigation Work Plan for Four MMRP Sites: Anti-Aircraft Range – 4A, Anti-Aircraft Range – 4B, Anti-Aircraft Range 90-MM-2, Grenade Launcher Range at Fort Stewart, Hinesville, Georgia*, dated July 2016 and received August 2, 2016. From that review, it appears that Fort Stewart has addressed EPD's comments. The final version of this document is considered complete and will be placed on file in our office.

The following concerns were identified during review of the above referenced document and, as discussed during an October 27, 2016 teleconference, will be addressed during the preparation of the RCRA Facility Investigation report for the site:

1. **Section 3.7 Risk Characterization and Analysis (Page 3-33).** The reports states, "Fort Benning is a facility similar in many ways to FTSW [Fort Stewart], and the approved risk assessment protocol described in [*Installation Baseline Risk Assessment Work Plan and Supporting Documents for Fort Benning, GA*] USACE (2012) reflects current GAEPD [Georgia Environmental Protection Division] expectations. Therefore, the USACE (2012) work plan for Fort Benning was referenced for application to FTSW". Please note that the *Installation Baseline Risk Assessment Work Plan and Supporting Documents for Fort Benning, GA* is a site-specific work plan developed and only approved for use at Fort Benning. While the referenced document has been approved by EPD, it is not intended to be guidance and should not be referenced as such.
2. **Section 3.7.1.2 Data Evaluation (Page 3-34).** The report states, "Risk-based screening values for surface water will be taken from the most recent version of the USEPA [United States Environmental Protection Agency] ambient water quality criteria based on consumption of drinking water and aquatic organisms. The most recent tap water RSLs [Regional Screening Levels] based on a cancer risk of 1 E-6 or an HI [hazard index] of 0.1 will be used for chemicals without ambient water quality criteria". Please use the most recent version of the Georgia Instream Water Quality Criteria Standards (IWQS) based on chronic effects as risk-based screening values for surface water. If an IWQS is not available for a certain constituent, please use the following hierarchy to determine a screening value: 1) USEPAs National Recommended Water Quality Criteria (NRWQC), freshwater, chronic; and 2) USEPA Tapwater RSLs.

3. **Section 3.7.1.2 Data Evaluation (Page 3-35).** The report states, "The full reporting limit (RL) will be adopted as the surrogate concentration for non-detects to complete the data set...". The full reporting limit should not be adopted as the surrogate concentration for non-detects. Please utilize ProUCL software, which incorporates several estimation methods including the Kaplan-Meier (KM) method, regression on order statistics (ROS) methods, and substitution methods, to compute the exposure point concentration. Additionally, please refer to the ProUCL User's Guide for information on how to assess non-detects greater than the maximum detected concentration.
4. **Table 3-9 Variables Used to Estimate Potential Chemical Intakes and Contact Rates for Receptors (Page 3-36).** The values listed for non-carcinogenic averaging time (AT) for the adult on-site resident and the body surface area exposed (SA_{soil}) for the child on-site resident are not consistent with Attachment 1 of *Update of Standard Default Exposure Factors* (EPA, 2015)¹ and should be 7300 days and 2373 square centimeters (cm^2), respectively. Additionally, EPD recommends using an exposure frequency (EF) of 90 days/year for the youth trespasser and an incidental ingestion rate for surface water (IR_{sw}) while swimming 0.05 liters per hour (L/hr). If variables differing from the *Update of Standard Default Exposure Factors* or the EPD recommendation are used, please provide references and justification for use.
5. **Section 3.7.2 Protocol for the RFI Screening Level Risk Assessment (Page 3-45).** The first paragraph of this section lists several documents which will serve as the guidelines to conduct the ecological risk assessment, but does not include *USEPA Region 4 Risk Assessment Supplemental Guidance, Interim Draft, 2015*. Please conduct the ecological risk assessment in accordance with the referenced USEPA Region 4 guidance.
6. **Section 3.7.1.6 Identify Chemicals of Concern (Page 3-44).** The report states, "Metals COPCs [chemicals of potential concern] initially identified as COCs [chemicals of concern] may be subjected to further background evaluation", lists several different evaluation techniques, and then states, "Metals shown thereby to be present at naturally occurring background will not be identified as COCs or subjected to RL [remediation limit] estimation, and will require NFA [no further action]". Background evaluation may be required for COPCs without an approved background concentration; however, site-specific background concentrations for metals in soil have previously been approved for Fort Stewart as part of the 16 SWMU RFI² and the FTSW-025-R-01 and FTSW-008-R-01MMRP RFI³. If a metal COPC exceeds one of the previously approved background concentrations during this investigation, it will be considered a COC, and a remediation level will need to be calculated for that constituent.

Should you have any questions concerning this correspondence, please contact Adam Hanley or Mo Ghazi at (404) 656-2833.

Sincerely,



Amy Potter
Unit Coordinator
Hazardous Waste Management Program

cc: Tressa Rutland, Fort Stewart (via e-mail)
Algeana L. Stevenson, Fort Stewart (via e-mail)

File: Fort Stewart (G)

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¹ OSWER Directives 9285.6-03; Attachment 1 9200.01-120; originally published February 6, 2014; revised September 14, 2015

² SAIC. 1999. Final Phase II RFI Report for 16 SWMUs. Fort Stewart, Georgia

³ ERT. 2014. Final Revised MMRP RCRA Facility Investigation Report Anti-Aircraft Ranger 90-mm-2 MRS (FTSW-002-R-01) and Hero Road Trench Area MRS (FTSW-008-R-01). Fort Stewart, Georgia.