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LETTER AND COMMENTS FROM RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL
MANAGEMENT REGARDING DRAFT FINAL WORK PLAN/SITE INSPECTION FOR CAMP
FOGARTY NCBC DAVISVILLE RI
10/27/2010
RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

27 October 2010

LTC Randall K. Church
Rhode Island Army National Guard
Camp Fogarty
2841 South County Trail
East Greenwich, RI 02818

RE: Military Munitions Response Program
Draft Final Work Plan/Site Inspection
Submitted 15 October 2010, dated 14 October 2010

Dear LTC Church;

The Rhode Island Department of Environmental Management, Office of Waste Management (RIDEM) has reviewed the above referenced document and has the following comments to offer;

1. Page 2, Figure 1-1, SI Process – With respect to this flow chart it should be revised to reflect that the regulators and stakeholders should be involved in the TPP Process. For the Further Action Recommended diamond the yes portion should go to a NTCRA or a TCRA not the imminent Threat Present diamond. The Proceed to Removal Phase does not allow for in-situ or on site treatment. Please revise.
2. Page 5, Section 1.7.1, Summary Report for Camp Fogarty Firing Range Site 10 (Halliburton NUS, 9/94) – This paragraph notes the MCL for lead in water at 5 mg/l. The correct MCL is 15 ug/l. Please revise.
3. Page 6, Section 1.7.3, Environmental Assessment (EA) (2009) – This paragraph states that an environmental assessment was conducted by RIARNG in May 2010 and the results of this study show no significant impact either environmentally or socio-economically as a result of this project. Please state what kind of studies were conducted and what criteria were used to draw this conclusion. RIDEM would be particularly interested in any sampling results that were obtained.
4. Page 6, Section 1.7.4, Geotechnical Engineering Report (Jacobs, 2009), Paragraph 2 - This paragraph indicates that there were 13 test borings of which three became monitoring wells (with construction details) and five test pit excavations. Further on

in the paragraph there is discussion of piezometers Please state what analytical samples, if any, were obtained for the wells, test pits and piezometers.

5. Page 6, Section 1.7.5, Soil sampling (RIARNG, July 2009) - This paragraph notes that three lead samples were taken which ranged from 220 to 450 mg/kg and then cites the RIDOH lead regulations. Please be advised that unless someone lives at this site the RIDOH lead regulations do not apply. The proper regulations to cite are the RIDEM Remediation Regulations. The direct exposure criteria is 150 mg/kg for residential use and 500 mg/kg for commercial/industrial use. The military base would fall under commercial/industrial use and would require an environmental land use restriction (ELUR) to prevent residential use based on the results obtained.
6. Page 15, Section 3.3, Digital Geophysical Mapping (DGM) and Intrusive Investigation, Paragraph 2 – It appears that any live munitions found during the investigation will be disposed of on site through detonation. Based on the information contained in Appendix M, the munition with the greatest fragment distance expected is the 81 mm mortar. In an uncontrolled situation the fragment can be propelled 1299' from the detonation site. In a controlled situation the fragments are expected to go no farther than 200'. Based on the Figure provided it would appear there is a possibility in the controlled detonation scenario that fragments could make its way to the clover-leaf associated with Route 4 and South County Trail. Please state if it is possible to move the controlled detonation location such that there is no possibility of fragments making there way off the Camp Fogarty property.
7. Page 15, Section 3.4, Soil Sampling, First Sentence - The first sentence states that soil samples will be comprised of discrete, composite, or multi-incremental samples. Please be advised that RIDEM only accepts discrete soil samples. Soils that are to be disposed of at an approved facility can be composite. This comment also applies to sections 3.4.1 through 3.4.4.

Sections 3.4.1 through 3.4.3 indicate that the maximum depth of soil sample is 6". In Section 3.4.4 it is not clear how deep soil samples are to be taken. The concern is that many of the analytes being sampled for can perchlorate through the soil strata. RIDEM considers surface soil to be the top two feet and subsurface soil to be below that. Subsurface soils also need to be obtained.

8. Appendix E (QAPP), Figure 10-2, Conceptual Site Model – Please define the acronym "MCOC". In addition, the following are concerns with this Figure:
 - a) Under the Receptors section there are two divisions for human receptors. Please explain what each division is for as opposed to the one division for ecological receptors.
 - b) Under the Exposure Media, please explain why there is no direct link between surface/subsurface soil and incidental ingestion and dermal contact.

If there is contamination this would seem to be a primary means of transporting contaminants from source to receiver.

- c) Under Source Media please explain why there is no direct link between Surface Water and Sediment. It would seem that fauna living in the wetlands would be directly impacted by any contamination within the wetlands, thus providing a direct link.
9. Appendix E, Page 10-6, Human Receptors – The residential scenario should also be considered as a baseline condition.
10. Appendix E, Page 10-6, Ecological Receptors – This section states there are no threatened or endangered species implying that ecological receptors are not going to be considered. While there are no threatened or endangered species the ecological receptors that do exist on site still need to be considered.
11. Appendix E, Page 11-2, Soil Sampling – This section notes that composite samples will be taken at various locations (Berm Area, Range Floor Area both disturbed and undisturbed area). Please see comment #7. RIDEM does not accept composite samples except for disposal purposes.
12. Appendix E, Table 11-1-1, Sample Summary and Rationale Berm Area – Please be advised that RIDEM considers surface soil to be the first two feet of depth and subsurface soil to be greater than two feet below ground surface. As noted in comments 7 and 11 RIDEM does not accept composite samples. Please revise the Table accordingly.
13. Appendix E, Table 11-3, Soil Analytical Methods, Reporting Limits, and Screening Levels – For screening levels RIDEM has a direct exposure criteria for beryllium of 0.4 mg/kg (residential) and 1.3 mg/kg (commercial/industrial). Selenium 390 mg/kg (residential) and 10,000 mg/kg (commercial/industrial) For chlorobenzene 210 mg/kg (residential) and 10,000 mg/kg (commercial/industrial). Please add these to this Table as no value is currently provided. There does not appear to be a similar Table for groundwater. Please note that RIDEM has classified the groundwater under this site as GAA.
14. Appendix E, Page 14-1, Digital Geophysical Mapping (DGM) and Intrusive Investigation – This section states that the area will be divided into 100' x 100' grids to facilitate data management. Page 15, Section 3.3 of the Work Plan states the area will be divided in 200' x 200' grids for the same purpose. Please clarify which section is correct.
15. Appendix E, Page 15-17, Table 15-7 - Massachusetts has a standard for perchlorate of 1.0 ug/l, California of 6.0 ug/l and USEPA considering 6.0 ug/l? QL is 6.67 ug/l.

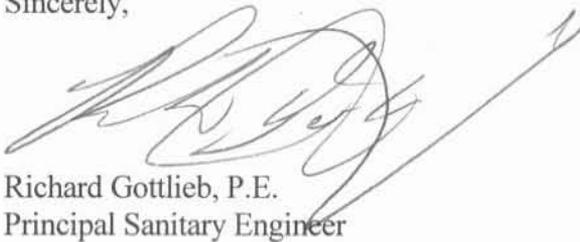
16. Appendix E, Page 16-1, QAPP Worksheet #16 – This Table notes that the Site Inspection report will be prepared in December 2010. Sampling will most likely occur sometime between November and December 2010. Please note that to get validated data takes approximately 6 months. Please confirm that the Site Inspection Report will be started in December, not completed at this time.
17. Appendix E, Page 25-1, QAPP Worksheet #25, Analytical Instrument and Equipment Maintenance, testing, and Inspection Table – The frequency of maintenance, testing and inspection is listed as daily for all equipment. Where appropriate the calibration of equipment should be tested at the end of the day to insure there has been no “drift” in the measurements. This should be included in this worksheet.
18. Appendix I – There is no Appendix I which should be Technical Project Planning (TPP) Worksheets.
19. Appendix L, Guidance Document for “Use of Sandbags for Mitigation of Fragmentation and Blast Effects Due to Intentional detonation of Munitions” - This section ends after Page L-6, prior to providing any useful information. Please provide the rest of the document.
20. Appendix O – Please provide this appendix which is supposed to be Standard Operating Procedures.
21. Appendix P, Environmental Protection Plan , Section 4.1 Site-Specific Mitigation Procedures - This section notes that liquid wastes will be disposed of in accordance with Delaware Regulations. RIDEM would prefer that RIDEM Policy Memo 95-01 “Guidelines for the Management of Investigation Derived Wastes” be followed. In addition, please explain how the solid waste generated from the borings and wells will be disposed of.
22. Appendix P, Page P-4, Section 4.1.8, IDW & Page P-5, Section 4.2.4, Decontamination and Disposal of Equipment – This section notes that IDW will be stored as indicated in section 1.6.1. There is no Section 1.6.1 in this Appendix. Section 1.6 in the main Work Plan is entitled “Future Land Use”. IDW should be handled as noted in Comment 21, above.
23. Appendix Q, Page Q-4, Figure 1-1, Project Quality Control Organizational Chart – This Figure does not allow for Stakeholder and Regulatory input. Please revise to allow for this input.
24. Appendix Q, page Q-10, Section 1.7.1 General Equipment Calibration/Maintenance Requirements – Where appropriate, equipment calibration should be checked at the end of the day to ensure the reading are still accurate. It is not clear if Section 1.7.1.6 (Post-Operational Checks) addresses this concern.

25. General Comment – It is understood the Rhode Island Army National Guard is conducting an MMRP study of this site. This site is part of the NCBC National Priorities Listed Site. Due to the active nature of Camp Fogarty the Navy was only able to investigate a small disposal area in the northern portion of the property. A Record of Decision for the disposal area was processed on 30 June 1998 recommending no further action for both soils and groundwater. The MMRP study site is about 1500 feet away from this former disposal area.

The current MMRP study is unusual in the sense that it is being conducted so that the construction of an office building and parking area can take place in the very near future. It is strongly recommended that a mini site inspection also be conducted to insure that a safe working environment is being provided for the people that will be working at this location. This would include surface, sub-surface and groundwater samples. Metals, VOCs, SVOCs, pesticides and PCBs should be sampled for.

RIDEM looks forward to working with the Rhode Island Army National Guard on this site. If you have any questions or require additional information please call me at (401) 222-2797 ext. 7138 or e-mail me at richard.gottlieb@dem.ri.gov.

Sincerely,



Richard Gottlieb, P.E.
Principal Sanitary Engineer

Cc: M. DeStefano, DEM OWM
C. Williams, USEPA
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