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LETTER REGARDING REGULATORY REVIEW AND COMMENTS ON INJECTION AND
RECIRCULATION OF EMULSIFIED OIL AT STUDY AREA 17 NTC ORLANDO FL
11/7/2005
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

November 7, 2005

Mrs. Barbara Nwokike
Code ES33
Southern Division
Naval Facilities Engineering Command
P.O. Box 190010
North Charleston, South Carolina 29419-9010

RE: Remedial Action Work Plan, Injection and Recirculation of Emulsified Oil Substrate (EOS®) at Study Area 17, Former Naval Training Center Orlando, Orlando, Florida

Dear Mrs. Nwokike:

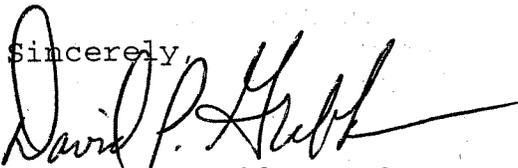
The Department has completed its review of the Remedial Action Work Plan, Injection and Recirculation of Emulsified Oil Substrate (EOS®) at Study Area 17, Former Naval Training Center Orlando, dated October 2005 (received October 10, 2005), prepared and submitted by AGVIQ-CH2M HILL JV-II. The Department has the following comments on the Work Plan:

- (1) As specified in Sections 3.1.5 and 7.8, in order allow a zone of discharge pursuant to Rule 62-522.300(2), Florida Administrative Code (F.A.C.), certain conditions need to be addressed in the Remedial Action Work Plan. While the chemical species contained in EOS® are listed, for the purpose of complying with Rule 62-522.300(2), F.A.C., the number of wells, their locations, their screening depths and the sampling frequency for those EOS® constituents are required to be located within the Remedial Action Work Plan.
- (2) In Table 5-1, second page, the list of select monitoring wells to be sampled should be provided.
- (3) Please provide individual figures depicting the typical injection well construction (one figure for each zone) and extraction well construction (one figure for each zone). The information currently contained in the two figures do not match up well with what is written in the text.
- (4) This Work Plan does not contain any activities related to the monitoring of the plume(s) downgradient of the source area. Please identify a document that currently addresses or will address the downgradient portion of the contaminant plumes.

"More Protection, Less Process"

- (5) Figure 3-1 shows the proposed locations of injection and extraction wells and monitoring well clusters. At one location, only an A Zone monitoring well is proposed. However, the reason for this is not stated in the Work Plan.
- (6) In Section 3.1.4, Field Implementation Performance Goals, it says that breakthrough will be confirmed by a visual inspection of the extracted groundwater for cloudiness. I would propose that occasional grab samples from the monitoring wells located within the injection area be taken during the injection cycle to determine visually the progress in spreading the EOS® through the aquifer from the various locations around the extraction well. Only using the extraction wells to determine the breakthrough could provide a partially false positive if the cloudiness is caused by injection from only one or a few of the wells.
- (7) The Department expects that EOS® injection will be immediately halted upon evidence that EOS® is discharging to the adjacent ditch.
- (8) There seems to be a sizeable discrepancy between the Solutions-IES, Inc. Alternative 2A in the Optimization Report (March 17, 2005) for this site and what is proposed in the Remedial Action Work Plan. The Optimization Report specifies four injection points and the Remedial Action Work Plan six injection points. There is also a sizeable difference in the number of extraction wells. Please identify these differences and why it was decided to go with what is proposed in the Remedial Action Work Plan.
- (9) The Work Plan shows that there is a five foot gap in the screening intervals between the shallow/intermediate (A and B zone) and deep (C zone) wells. Please explain. Is there an aquitard consistently at that depth where well screens are being purposely being avoided?

If I can be of any further assistance with this matter, please contact me at (850) 245-8997.

Sincerely,

David P. Grabka, P.G.
Remedial Project Manager

Mrs. Barbara Nwokike
November 7, 2005
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cc: Tom Lubozynski, FDEP Central District
Greg Fraley, USEPA Region 4
Steve McCoy, Tetra Tech NUS, Oak Ridge TN
Steve Tsangaris, CH2M Hill, Tampa

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ESN jfe