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NS MAYPORT
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LETTER AND U S NAVY RESPONSE TO COMMENTS REGARDING BIOAUGMENTATION
CORRECTIVE ACTION SUBMITTAL PACKAGE NS MAYPORT FL
7/26/1995
ABB ENVIRONMENTAL SERVICES



8534

Naval Station Mayport
Administrative Record
19.01.00.0117

July 26, 1995

Commanding Officer
Southern Division
Naval Facilities Engineering Command
ATTN: Mr. Harold McGill, CODE: 1823
2155 Eagle Drive
North Charleston SC 29418

SUBJECT: Response to Comments on FIFCO International Inc.
Bioaugmentation Corrective Action Submittal Package
NELP Innovative Technology Demonstrations
NAVSTA Mayport
Navy CLEAN District I CTO #0028
Contract No. N62467-89-D-0317

Dear Harold:

Enclosed please find a compilation of comments on the May 31 1995, FIFCO International, Inc. Response to Comments Submittal Package. The commentors are as follows:

USEPA	Jay Basset
FDEP	Greg Brown or James Cason
Mayport	Cheryl Mitchell
ABB-ES	Mark Lieberman

Please contact me at 904-656-1293 with any questions or comments.

Very truly yours,

ABB Environmental Services



Peggy Layne, P.E.
Project Manager

enclosures

cc: David Driggers, Southern Division
Cheryl Mitchell, NAVSTA Mayport
Jay Bassett, USEPA
Jim Cason, FDEP

ABB Environmental Services, Inc.

Comments on FIFCO Submittal dated May 1995

Comments directed towards the Navy:

Clean-up Goals

- The issue concerning the definition of "Confirmatory Sampling" and who is to do what has not been resolved. This also ties into using Region IV SOP for sampling and decon protocols. It would be preferable to be able to utilize FIFCO's confirmation samples as part of the ongoing investigation for decisions related to further action, if required. If FIFCO is not obligated contractually to follow protocols established in Mayport's RFI workplans, the data gathered would be suspect and would need ABB confirmation at a minimum and would likely be unusable. Solutions are (1) get FIFCO to follow established sampling/decon protocols (current workplan unsatisfactory) or (2) cancel FIFCO doing confirmatory sampling and ABB do it such that efforts aren't duplicated and \$'s not spent wisely.
- What are the clean-up objectives of this remediation? What is background, is it technically feasible to clean up to that level? The workplan needs to include a clear technology objective such that the Mayport Team can evaluate as part of CMS.
- EnGen/FIFCO's response to question #7 was adequate, however FDEP has the following concerns. Demonstration projects are typically structured around an experimental design that attempts to confirm or reject the hypothesis that the innovative technology is effective. Experimental designs also typically measure the effects of various input parameters on the effectiveness of the technology. The RAP does not attempt to do this. This is acceptable if collection of the qualitative and anecdotal data to support NELP technologies is the Navy's objective. It may make transfer of this technology difficult, however.

Comments directed towards EnGen/FIFCO:

Removal rate

- Response to question #10 regarding the expected removal rate is not adequate. How is it going to clean up to acceptable NAVAL/EPA levels in 6 months -- based on what? What are acceptable NAVAL/EPA levels -- since they have not been established, how can FIFCO make this claim?
- In response to question #10 FIFCO states that the degradation to acceptable levels will be achieved "within 6 months or sooner". However, the RAP itself says that final confirmatory sampling will be performed at 60 days. What happens between the 60 days and 6 months timeframe?

Soil pH

- Response to question #11 implies pH of soils would likely be lowered. How does this affect contaminant transport in these soils? Is this a concern?

Sampling protocols

- Response to question #15 regarding confirmatory sampling was unacceptable. Protocols must be included in the workplan, not a vague statement stating that they will be followed.

Application system

- Response to question #17 regarding the application system was adequate, however FDEP has the following concerns. The new reagent distribution system places the reagent below the surface soil contamination and still does not appear to be effective. Excavated soils that are characteristic or listed hazardous wastes must be properly managed.
- Section 6.2.2, page 10, of the RAP needs to be changed to reflect the installation of the redesigned application system. Section 6.2.3 and Table 6.2.5 also need to be changed to reflect the new design.

Handling of soil cuttings

- FIFCO is still asking to remediate drummed contaminated soils and water in sec 4.4 & 7.1. This CANNOT be done if these materials can be classified as hazardous waste. If the soils and water are not hazardous according to RCRA definitions, treatment in drums can be done; however FIFCO needs to expand on where and how they will do the treatment.
- More information needed on the response to comment #31. The question is restated alternatively: What are the CRITERIA by which the Navy will monitor and evaluate the residual media remaining in the shallow soil and water table aquifer after the project. Monitoring and sampling are methods whereby data are acquired; what will the data produced by the monitoring and sampling consist of? Example: FIFCO was asked to address the statement in FDEP's letter of February 28, 1995, thus: "How can this process "degrade...stabilize heavy metal salts?" (See section 6.1). What happens to the metal atom or ion? I can understand degrading organic compounds to their components such as CHON, but am unsure of the application of this principle regarding metals." The FIFCO response, the "metal salts" will be at acceptable levels by the end of the project", still does not address what happens to the metal ion. It seems that unless it is transformed (not likely) or mobilized to another location, it will remain in the soil and will yield the same analytical quantities as before treatment, since the soil (and water) analyses do not distinguish between compounds ("salts"). In other words, lead sulfate

may indeed be degraded to lead, sulfur and oxygen but the lead analysis will yield the same quantity of lead. How will the Navy use this to measure "success?"

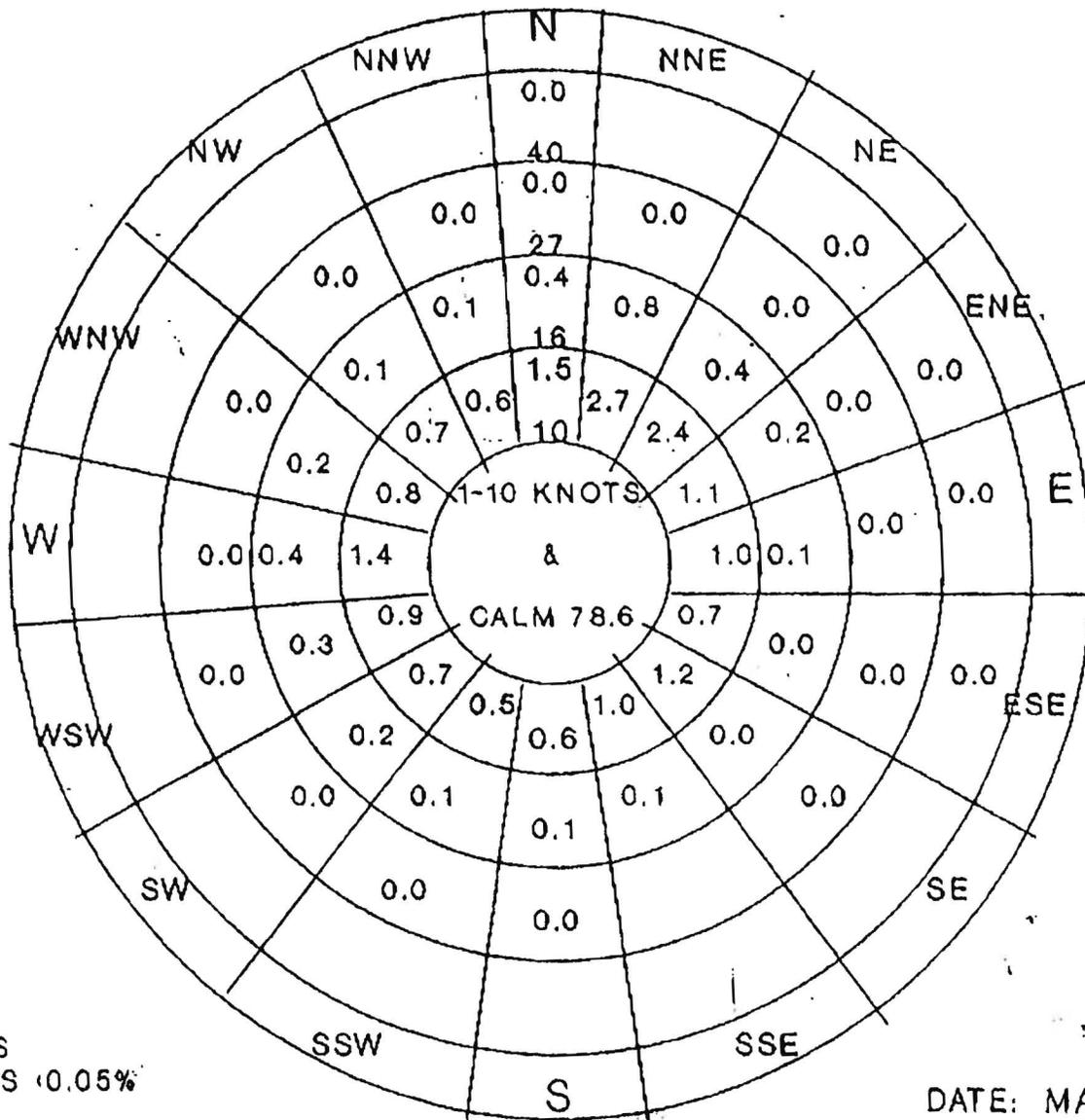
Underground Injection

- More information is needed on the response to comment #32. As requested a copy of Chapter 62-528 FAC is enclosed. Confusion regarding the term "injection well" is understandable; however, reference to 62-528.011(3)(c) should confirm the applicability of the rule to both former and the present Bac-Terra™ BR-650 application schemes. Because of the nature of the project, the permitting process should be relatively straightforward, however.

Health and Safety Plan (comments received from Mayport):

- In the HASP, Section 3.0 (label statements/questions A-I): B - Please insert "This site is a Federally designated Solid Waste Management Unit (SWMU) currently managed under the Station's HSWA permit." D- "There is no known record of injuries at this site. there is no known exposure to chemicals used at this site other than that which would be expected in normal handling and day to day operations. Spills, other than rinsing and dumping of containers, probably occurred at this site during routine operations. There is no record of complaints related to this site." G - "On base housing is located in the southeastern portion of the station. the small town of Mayport is located along the western boundary of the station." I - a wind rose is attached for correct identification of direction and speed. (Mayport)
- HASP Section 12.0, page 16, if the regulatory agencies agree that soils can be drummed and treated on site, statement #1 can be modified to reflect this change. (Mayport)

SURFACE WIND ROSE



0.0 INDICATES OCCURRENCES (0.05%)

DATE: MAY 1989

E-2

FIGURE E-1
TOTAL P.03