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ENSAFE INC.

ENVIRONMENTAL AND MANAGEMENT CONSULTANTS

5724 Summer Trees Drive • Memphis, Tennessee 38134 • Telephone 901-372-7962 • Facsimile 901-372-2454 • www.ensafe.com

September 9, 1999

Florida Department of Environmental Protection
Attn: Joe Fugitt
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

N00204.AR.001809
NAS PENSACOLA
5090.3a

Re: Final Record of Decision,
Operable Unit 4 (Site 15, Pesticide Rinsate Disposal Area), NAS Pensacola
Contract # N62467-89-D-0318/083

Dear Mr. Fugitt:

On behalf of the Navy, EnSafe Inc. is pleased to submit two copies of the Final Record of Decision for Operable Unit 4 (Site 15, Pesticide Rinsate Disposal Area) at the Naval Air Station Pensacola in Pensacola, Florida. Responses to USEPA and FDEP comments are also enclosed. As soon as the comment period is over, a responsiveness summary will be completed for inclusion in the ROD.

If you should have any questions or need any additional information regarding the document, please do not hesitate to call me.

Sincerely,

EnSafe Inc.

Allison L. Harris
Task **Order** Manager

Enclosure

cc: Patricia Kingcade, FDEP - without enclosure
Tom Lubozynski, FDEP - NW District without enclosure
Bill Hill, Code 1851 SOUTHNAVFACENCOM without enclosure
EnSafe Inc. Knoxville file without enclosure
EnSafe Inc. library without enclosure
Administrative Record

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
RESPONSE **TO** COMMENTS
DRAFT FINAL RECORD OF DECISION
OPERABLE **UNIT 4** (Site **15**, Pesticide Rinsate Disposal **Area**)
NAS PENSACOLA

Comment 1:

Page 11, Section **4.0**, Scope and Role of the Operable Unit: The last sentence in the opening paragraph states "The two technologies are independent of each other, because there is no correlation between contamination in surface soil and groundwater". It is highly probable that there is a direct correlation between surface soil contamination and groundwater contamination at this site. The selection of "independent" technologies is based on performance for reducing risk versus the cost for respective media. Any correlation between surface soil and groundwater contamination is relict. Based on the data, there simply is no correlation between subsurface soil and groundwater media, although it can be presumed there once was. Therefore, the subsurface soil is the "missing link" in the evidence supporting the condition there is no current correlation between surface soil and groundwater contamination.

Response:

Any Correlation between soil and groundwater contamination is relict. Surface soil is being remediated because of the calculated risk to site receptors based on existing chemical concentrations in soil, not because of threats to groundwater. Based on the fact that there is no correlation between subsurface soil and groundwater Contamination, leaching of contaminants to the subsurface and groundwater from surface soils does not appear significant. Therefore, the calculated remedial volumes at the site are based on an excavation depth of **2** feet.

Comment 2:

Page 19, Groundwater Contamination, Paragraph 2: This paragraph supports my first comment on the correlation between arsenic contamination in the surface soil and the groundwater.

Response:

The Navy agrees that at one time a "source area" may have existed. However, a source area was not identified during the RI and, if it existed, has likely **been** removed by natural process to below PRGs. **This** would explain the statement made on page **19**. Also see response to Comment **1**.

Comment 3:

Page 30, Table 6-6, Toxicological Reference Information for Chemicals of Potential Concern: It would **be** helpful if abbreviations used in the column titled "Weight of Evidence" were explained in the notes at the bottom of this table.

Response:

The abbreviations denoted in the "Weight of Evidence" column will **be** referenced in the table's notes.

Comment 4:

Page **44**, Third paragraph: Arsenic is not considered an essential nutrient nor can it be attributed to saltwater intrusion at this site. I recommend this paragraph be deleted from the text.

Response:

The referenced paragraph will be deleted.

Comment 5:

Page **48**, Table 7-1, Soil Threshold Concentrations: The remedial volumes calculated should also consider the soil leachability values for dieldrin (0.005 mg/kg) and chlordane (**4.1 mg/kg**).

Response:

Dieldrin and alpha- and gamma-chlordane were detected in surface soils and **will be** remediated based on their coincidence with arsenic, and the risk they present to site receptors. Dieldrin exceeded USEPA's **SSL (0.001 mg/kg)** at **13** locations in subsurface soil, however, it was detected in only the first round of groundwater sampling in **only** one well at **a** concentration of 0.11 $\mu\text{g/kg}$, just exceeding the **PRG of 0.1 $\mu\text{g/kg}$** . **This** exceedance **is** considered equivalent to the PRG, and a lack of dieldrin in subsequent sampling events does not suggest a significant mass of dieldrin in subsurface soil to present a **risk** to groundwater. Chlordane did not exceed PRGs in groundwater or soil. Therefore, remediating subsurface soil based on leachability values for these two constituents is not justified. **See** the response to Comment 1.

Comment 6:

I would recommend clarifying the cost assumptions as a maximum case scenario (30 years of monitoring).

Response:

The cost assumptions will be clarified to identify them **as** maximum **case** scenarios.

Comment 7:

Page **64**, Table 7-3, Chemical Specific ARARs for the Selected Remedy: Drinking water standards in the State of Florida are established in Chapter 62-550 of the Florida Administrative Code (FAC). Chapter 62-520 of the FAC establishes groundwater quality standards and classification of groundwater aquifers within the state.

Response:

The reference will be corrected.

Comment 8:

Table 8-1, Page 73: The cost benefit and time savings to the Navy for Alternative 2 is not apparent in this table. I would recommend clarifying the cost assumptions as a maximum case scenario. The actual cost and time frame for cleanup could be greatly reduced following soil removal since the source of groundwater contamination will be reduced.

Response:

The cost assumptions will be clarified to identify them as maximum case scenarios.

Comment 9:

Page 73, Section 8.1.3.1, State/Support Agency Acceptance: The State of Florida agrees with the selection of Alternative 2 for groundwater to remediate Site 15. Please note, upon revisions to the draft ROD, the final ROD will be forwarded to the Secretary of the Department for concurrence with the selected alternative. Until the Secretary concurs with the final ROD, State acceptance should be considered as "pending".

Response:

Noted.

Comment 10:

Page 79, Section 8.2.3.1, State/Support Agency Acceptance: The State of Florida agrees with the selection of Alternative 3 to remediate Site 15. Please revise the sentence to state Alternative 3. Please note, upon revisions to the draft ROD, the final ROD will be forwarded to the Secretary of the Department for concurrence with the selected alternative. Until the Secretary concurs with the final ROD, State acceptance should be considered as "pending".

Response:

Noted.

Comment 11:

Page 82, Table 9-1, Performance Standards for Groundwater: The criteria for Groundwater of Low Yield/Poor Quality cannot be applied to this site. The performance standard for arsenic in groundwater is currently 50 ppb.

In addition to the comments above, I recommend that chromium be reevaluated as a chemical of potential concern (COPC) in the Remedial Investigation (RI) Report. If chromium is found to contribute to risk in the groundwater, the following sections should be revised in the final document.

Page 19, Groundwater Contamination Section
Page 29, Table 6-2, Groundwater COPCs

Page 36, Section 6.1.6.2, **Summary** of Groundwater **Risk**
Page **42**, Table 6-11, Groundwater RGO for Site Resident
Page **43**, Table 6-12, Groundwater RGO for Site Worker

Response:

It is understood that criteria applying to Groundwater of **Low Yield/Poor Quality** cannot be applied to this site; therefore, the performance standard for arsenic will **be** modified to indicate **50** parts per billion.

The risk from chromium was reevaluated and an errata page was issued for the RI report on September 1, 1999. Chromium did not contribute **greatly to** risk.