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NAS CECIL FIELD, FL
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LETTER OF TRANSMITTAL AND FLORIDA DEPARTMENT OF ENVIRONMENTAL
PROTECTION APPROVAL OF ALTERNATIVE PROCEDURE FOR FREE PRODUCT
RECOVERY AT NORTH FUEL FARM NAS CECIL FIELD FL
5/26/1995
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

May 26, 1995

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Commanding Officer
Mr. Bryan Kizer, Code 1842
SOUTHNAVFACENGCOM
Post Office Box 190010
North Charleston, SC 29419-0068

RE: Alternate Procedure and Requirements
North Fuel Farm, Naval Air Station Cecil Field Florida
File No. AP-PC0075

Dear Mr. Kizer:

The Department has reviewed the request for an alternate procedure to Chapter 62-770, Florida Administrative Code (F.A.C.), for the planned Initial Remedial Action at the North Fuel Farm dated May 11, 1995 (received May 11, 1995). The specific exception is to Rule 62-770.300(2), F.A.C., that prohibits free product recovery which requires dewatering or groundwater extraction that causes groundwater table depression without Department approval. The Department concurs with this request and an executed copy of the Approval of Alternate Procedures is enclosed.

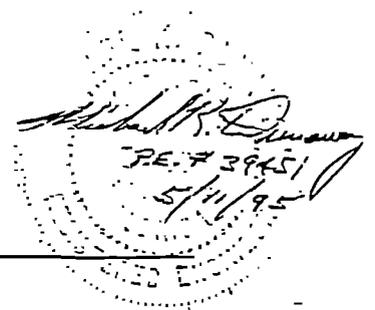
If you have any concerns regarding this letter, please contact me at (904) 921-9991.

Sincerely,

Michael J. Deliz, P.G.
Remedial Project Manager

cc: Greg M. Brown, FDEP
John Mitchell, FDEP Natural Resource Trustee
Brian Cheary, FDEP Northeast District
Bart Reedy, USEPA - Atlanta
Jerry Young, City of Jacksonville
Steve Wilson, SOUTHNAVFACENGCOM
Ursula Klimas, N.A.S. Cecil Field

ALTERNATE PROCEDURES REQUEST



BACKGROUND

The North Fuel Farm, Facility 76, is located at Naval Air Station Cecil Field, Jacksonville, Florida. The base is situated in southwestern Duval County, at the junction of Highway 228 (Normandy Boulevard) and 103rd Street (Figure 1). The North Fuel Farm is located on the main base at the northeast corner of A Avenue and Loop Road (Figure 2).

Numerous spills have occurred in the past which have contributed to petroleum contamination in the groundwater and soil at the North Fuel Farm. The two most recent major spills were on August 3, 1987, when an estimated 22,772 gallons of JP-5 were spilled, and on February 10, 1991, when an estimated 913,000 gallons were released. Lighter than water nonaqueous-phase liquid (LNAPL) is present beneath the tank mound area and acts as a continuing source of petroleum contamination to the soil as well as the groundwater.

Asea Brown and Boveri Environmental Services, Inc. (ABB-ES) recommended an Initial Remedial Action be conducted at the North Fuel Farm to recover LNAPL beneath the tank mound. This action will take place concurrently with the implementation of the cleaning, inspecting, and repairing of the fuel storage tanks which will be performed by Bechtel Environmental Inc. (BEI) in compliance with Chapter 62-770.300(1b) F.A.C.

The following alternatives have been considered for free product recovery in the tank area.

- Bioslurping
- Wells and skimmer pumps
- Perimeter collection system
- Horizontal recovery wells

Following a comparison study, it was agreed upon by the BRAC Cleanup and Partnering Teams that the recommended product recovery method for the tank mound area would be bioslurping.

Use of bioslurping offers a number of advantages not available with the other technologies. This option combines bioventing and free product recovery. The utilization of a vacuum system to enhance free product recovery induces a pressure gradient which would increase fluid recovery rates in the extraction wells. This alternative is preferred over conventional product recovery using skimmer pumps because there is no groundwater depression and associated smear zone. With bioslurping, the product flow follows an already product saturated path. Once installed, the flexibility will exist to modify the bioslurper system to treat deeper soil and groundwater.

The recommended product recovery system consists of utilizing the bioslurping technology in two existing two inch diameter monitoring wells (CEF-076-15 and CEF-076-16) and the

be connected to a 1-inch PVC drop tube, which enters the wellhead through a vacuum-tight seal and extends to the groundwater-product interface in each well. A ball valve will be placed at the wellhead of each extraction well to allow for release of the vacuum from the well.

Recovery Estimate

One gallon per minute is the design flow rate from the two bioslurper wells. Assuming a worst case scenario of recovering, one part hydrocarbon for thirty parts groundwater and using the former estimate of 87,000 gallons of product, five years would be necessary to remove product at the North Fuel Farm. This equates to a product recovery rate of approximately 50 gallons per day. This estimate is based on limited operational data from a bioslurping system at NAS Fallon. Due to differences in site conditions, the actual recovery rates will be verified during system operation. Other product recovery options will be incorporated concurrently with the bioslurping technology and will hasten product recovery rates.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN RE:

File No. AP-PC0075

Department of the Navy)
Commanding Officer)
Cecil Field Naval Air Station)
Request Pursuant to Florida)
Administrative Code Rule 62-770.890)

APPROVAL OF ALTERNATE PROCEDURES

This cause comes before me upon receipt of a request by the Department of the Navy for approval of alternate procedures and requirements for the North Fuel Farm site located at Cecil Field Naval Air Station in Jacksonville, Florida pursuant to Florida Administrative Code (F.A.C.), Rule 62-770.890. A copy of the request is attached as Exhibit A.

FINDINGS OF FACT

1. The applicant requests that exceptions be granted for compliance with F.A.C., Rule 62-770.300(2), that prohibits dewatering or groundwater table depression as an Initial Remedial Action (IRA) prior to completion of a Contamination Assessment and approval of a Remedial Action Plan.

2. The Department of the Navy has performed a preliminary assessment of the extent of free-product contamination at the North Fuel Farm site. It has been established that extensive free-product contamination exists

source. Use of this alternative does not require groundwater depression and will not create a smear zone which could act as a source of groundwater contamination after product removal as groundwater elevations fluctuate. Efforts will be made to limit groundwater collection during free product recovery by such methods as adjusting drop tube elevations and flowrates; however incidental groundwater recovered is believed to be excessively contaminated and will be treated at the FOTW.

Demonstration that the alternate procedure or requirement is at least as effective as the established procedure or requirement:

Utilizing the bioslurping technology will allow free product recovery without the groundwater table depression normally encountered in skimmer pump systems. This technology offers a comparable extraction process to other methods and does not allow product to move through areas of the aquifer which are not already contaminated with product. Bioslurping may be used to facilitate bioventing by modifying the observation wells and air flow rates.

free product will be funded solely by the Department of the Navy and no reimbursement claim under either the Early Detection Incentive Program, the Abandoned Tank Restoration Program, or against any other fund of Florida public monies for cleanup cost reimbursement will be made.

Based on the information provided by the applicant, the Department finds that the applicant's request is reasonable and will provide environmental protection substantially equivalent to that provided by compliance with the requirements established in Florida Administrative Code Rule 62-770.300.

CONCLUSIONS OF LAW

Florida Administrative Code, Rule 62-770.890 authorizes the approval by the Secretary or her designee of alternate procedures and requirements concerning the regulation of petroleum contamination site cleanup criteria.

The Department concludes that the applicant has adequately demonstrated that the proposed alternate procedure provides a substantially equivalent degree of protection for the lands, surface waters, and groundwaters of the State as the established requirements and that the alternate procedure is at least as effective as the established requirements.

Upon consideration of the foregoing, it is therefore ORDERED that the Department of the Navy's request for an alternate procedure and requirement is GRANTED.

(f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action;

(g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Order. Persons whose substantial interests will be affected by any decision of the Department with regard to the subject agency proposed action have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 21 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

When the Order is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes by filing a Notice of Appeal