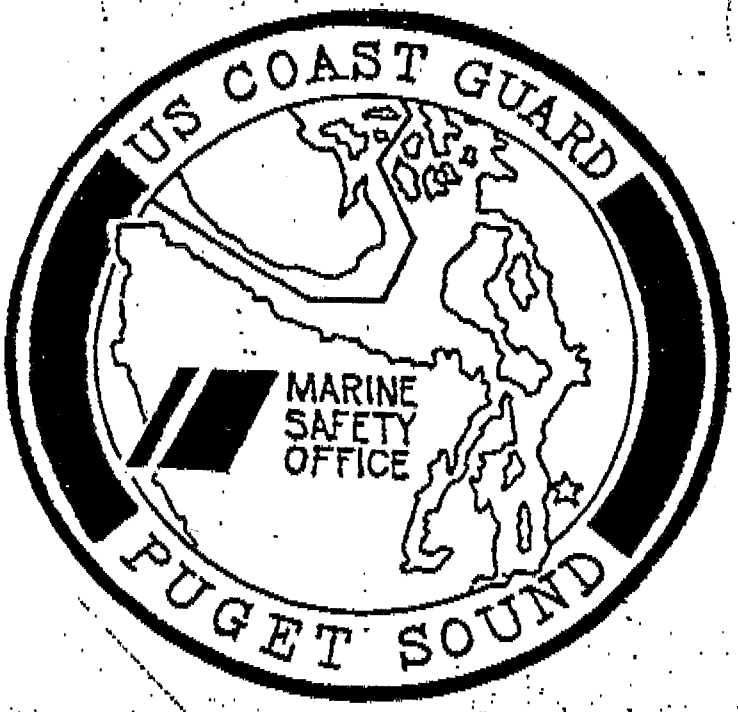

1519 ALASKAN WAY S.
SEATTLE, WA 98134-1192

FAX PHONE NUMBERS
(206) 286-5544
FTS 396-5544

DATE June 7 1991 NUMBER OF PAGES 3

FROM: LCDR WATSON

TO: Mr Dick Logan, WDOE

NOTES: Complete package mailed to Paul O'Brien

Commanding Officer
U. S. Coast Guard
Marine Safety Office
Puget Sound (COP)

Pier36/Bldg. 1
1519 Alaskan Way S.
Seattle, WA 98134-1192
(206) 286-5540

16600

JUN 6 1991

Texaco, USA
Puget Sound Plant
P. O. Box 622
Anacortes, Washington 98221-0622

Gentlemen:

Your plan to apply fertilizer to test plots in Fidalgo Bay is approved. I have reviewed your Proposal for Enhanced Natural Recovery of Oil Contaminated Shorelines within Fidalgo Bay dated May 15, 1991, with the assistance and cooperation of Region X Regional Response Team members and my Scientific Support Coordinator, Sharon Christopherson. Our review was based on the Interim Guidelines for Preparing Bioremediation Spill Response Plans (Draft), which is enclosed for your information.

The fertilizer application and evaluation should be conducted according to the Proposal for Enhanced Natural Recovery of Oil Contaminated Shorelines within Fidalgo Bay dated May 15, 1991, as amended by the following comments:

1. Utilize analytical techniques with detection limits in the ppb range for heavy metal analysis in water samples, especially analysis of cadmium, copper, mercury, silver and zinc. These concentrations should be compared to EPA acute ambient water criteria.

2. Sediment samples collected before and after fertilizer application should be analyzed to determine their dry wt concentration heavy metals. These concentrations should be compared to WA state sediment criteria (AET) values. This will give a good indication if any long term effects would be expected.

3. There is still concern whether adequate separation exists between control plots and test plots to prevent fertilizer reaching the control plots when the tide is covering the cobble beach plots. If nutrient analysis after the first fertilizer application confirms this problem, location of the plots must be changed to correct problem.

4. A test plot should be established in a reference marsh which is not oiled and treated with the same dosage of fertilizer to determine any direct effects on the marsh plants separate from the oil. Visual observations in the unoiled plot will probably suffice.

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5. The environmental impact study should include physical, chemical and biological measurements of the different habitat types in the Bay. Transects in the bioremediation plots should be compared to transects in similar oiled habitats which are not bioremediated to try and determine if there is actually enhanced habitat recovery as well as biodegradation of oil.

6. The data should be provided to me for dissemination to the federal agencies and to Washington Department of Fisheries (Thom Hooper) as the experiment is running to allow for adjustments if necessary.

The data that you will collect according to this plan will provide some useful information. The qualitative nature of the data collection plan, will not be sufficient to determine potential net benefits in a future application. Bioremediation carries its own set of potential impacts, therefore, potential net benefits would have to be determined statistically before a general application could be approved. Enclosure (5) provides additional information on the necessary sampling of TPH that would be required to determine a statistical mean and variance.

Enclosures (1) through (5) provide additional background information.

Sincerely,

H. H. DUDLEY
Captain, U. S. Coast Guard
Federal On-Scene Coordinator
Puget Sound

Enclosures: (1) Interim Guidelines for Preparing Bioremediation Spill Response Plans (Draft)
(2) Letter from Ms. Christopherson to Capt. Dudley dated May 20, 1991
(3) Analysis of Metals in Water and Solid Wastes (EPA 1986)
(4) TC3991-08 Task 6 Final Report
(5) Letter from Thom Hooper to LCDR Watson dated 4 June 1991

Copy: Chairman, RRT

COP XO CO 6/6