



DEPARTMENT OF THE NAVY  
NAVAL WEAPONS SUPPORT CENTER  
CRANE, INDIANA 47522 5000

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NSWC CRANE  
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IN REPLY REFER TO:  
11346/CLOS.PL.  
0924

22 DEC 1986

Mr. Terry Gray  
Indiana Department of Environmental Management  
Hazardous Waste Management Branch  
105 South Meridian Street  
P. O. Box 6015  
Indianapolis, IN 46206-6015

Dear Mr. Gray:

We are submitting additional information for our R-150 Tank Site Closure Plan as requested in your correspondence of November 3, 1986. We hope the enclosed information will sufficiently address all issues highlighted in that letter.

NAVWPNSUPPCEN Crane point of contact is Mr. Jim Hunsicker, Code 0924, telephone AV 482-3114, FTS 336-3114 or commercial 812-854-3114, zip code 47522-5009.

Sincerely,

J. D. FARIS  
Manager, Engineering Division  
Public Works Department  
By direction of the  
Commanding Officer

Encl:

(1) R-150 Tank Closure Plan Review-Deficiency  
Response-Third Technical Review

Copy to:

Northern Division, Naval Facilities Engineering  
Command (Code 14)

R-150 TANK CLOSURE PLAN  
THIRD TECHNICAL REVIEW  
DEFICIENCIES AND RESPONSE  
NAVAL WEAPONS SUPPORT CENTER CRANE  
IN5170023498

Chemistry Review Deficiencies

1. It was reported that the tank was located 15 feet under the surface of the soil. Soil samplings should have been taken at this depth and lower as specified in item 10 of the Geology Review, Notice of Deficiency, Second Technical Review. To emphasize another statement in item 10, "sample at five foot intervals" means that samples should be taken from specific depths instead of five foot core composites. Also, several sample locations should be chosen randomly from a grid system.
2. There should be more than one background sample taken from each soil horizon.

Response: Mr. Garry Mills in a telephone conversation with Mr. Jim Hunsicker on December 8, 1986 indicated these deficiencies could be deleted from the Third Technical Review Notice of Deficiency.

3. The validity of the analytical results are in question due to the fact that there is no documentation on the sampling methods utilized. This is also true in the case of soil samples 5, 6, and 7 where there is only a general sampling description. There are several concerns pertaining to the sampling methods. Two of which are due to excessive sample handling (composites of five feet) and the choice of sample containers the effect might be a loss of volatile organics.

Response: We realize the validity of early analytical results from samples taken at the R-150 site in 1983/1984 are questionable due to failure on our part to document sampling and packaging procedures. This situation has been corrected and should not occur again.

4. A detailed explanation of the sampling methods utilized should be submitted on all subsequent sampling episodes.

Response: On any sampling done now and in the future detailed records will be kept on what sampling methods were used to collect samples. This documentation will accompany the analytical results

from these samples when submitted to the Indiana Department of Environmental Management (IDEM) for review.

5. Provide all quality control data necessary to verify the precision and accuracy of the analytical results on all subsequent analyses.

Response: We will submit for review, with any future analytical results sent to IDEM, the quality control data necessary to verify their precision and accuracy.

#### Geology Review Deficiencies

1. Crane needs to submit groundwater elevations at each sampling interval along with the analysis. Crane will also be responsible for submitting a groundwater elevation contour map annually for evaluation.

Response: As required we will submit groundwater elevations for each sampling interval along with the analysis. And annually we will submit the required groundwater elevation contour map for evaluation.

2. The Geology Section will recommend approval of the closure plan upon a satisfactory evaluation of the new data forthcoming from the new borings and monitoring wells along with their satisfying the above mentioned requirements.

Response: As soon as the data from the new borings and groundwater monitoring are available it will be submitted to the Geology Section for review.