



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

N00164.AR.000300
NSWC CRANE
5090.3a

REPLY TO THE ATTENTION OF:
DRP-8J

September 8, 1997

Mr. Jim Hunsicker, Director
Environmental Protection Department
Department of the Navy
Crane Division
Naval Surface Warfare Center
300 Highway 361
Crane, Indiana 47522-5000

RE: U.S. EPA Testing of Biosensor
Naval Surface Warfare Center
Crane, Indiana
IN5 170 023 498

Dear Mr. Hunsicker:

The United States Environmental Protection Agency (U.S. EPA) Regions 5 and 10 have chosen the Naval Surface Warfare Center (NSWC) to conduct a field demonstration of the biosensor method. Previous testing was performed at two sites in Region 10, in conjunction with the Corps of Engineers Cold Regions Research and Engineering Laboratory (CRREL), and the Naval Research Laboratory for Biosensors and Biomaterials (NRL). The U.S. EPA hopes that this study will lead to the validation of the biosensor method for improving fast-track field sampling of TNT in ground water and surface water. The information gained from testing at your facility will lead to the creation of a new U.S. EPA SW-846 test method that can be utilized nationally at all facilities with TNT contamination. A description of the biosensor method and its use is attached.

NSWC was chosen for this demonstration for several reasons as follows:

1. The cooperation between the U.S. EPA and the Navy over the years has provided an excellent cooperative atmosphere to work together to find improved sampling and technology advances.
2. The geologic characteristics of the site, i.e., karst conditions, provides a unique formation in which contaminated ground water is flowing. This may provide information on how particulate transport may effect samples.

3. The ground water contamination currently on-site allows for testing of a plume that contains organics mixed with explosives (at ABG), which is important to demonstrate effects of organics on the method. The facility also provides a different plume which has a mix of explosives at various levels (at Rockeye).

Your cooperation in this sampling event is greatly appreciated by the Agency and will lead us and NRL and CRREL into the next phase of improvement and acceptance of this new field technique. Thank you for all the time your staff has given us in coordinating access and materials and room we needed to perform these tests. We will keep you informed of the results of the method development. If you have any questions regarding the testing and results from your facility, please contact me at (312) 886-6146.

Sincerely,

A handwritten signature in black ink, appearing to read "Carol Witt-Smith". The signature is fluid and cursive, with a large initial "C" and "W".

Carol Witt-Smith
Corrective Action Expert
WMB, IL/IN/MI Section