



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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VIA CERTIFIED MAIL P 126 020 052

October 29, 1998

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

Dear Mr. Hunsicker:

Re: Draft Field Sampling Plan  
ABG, ORR and Demolition Range  
Crane, Indiana  
IN 5 170023498

The enclosed page was inadvertently omitted from the Indiana Department of Environmental Management's (IDEM) October 27, 1998 letter to you regarding comments on the Draft Field Sampling Plan for the Ammunition Burning Ground, Old Rifle Range and the Demolition Range at NSWC Crane. Please include this page with your evaluation of the comments included with that letter.

If you have any questions regarding this matter, please contact Ms. Michelle Timmermann of my office at 3 17/232-3264.

Sincerely,

Victor P. Windle, Chief  
Hazardous Waste Permit Section  
Hazardous Waste Facilities Branch  
Solid and Hazardous Waste Management

MLT

Enclosure

cc: Mr. Craig Barker, IDEM  
Ms. Cheryl Frischkom, IDEM  
Ms. Carol Witt-Smith, EPA Region 5

Comments  
Draft Field Sampling Plan, dated May 1998  
NS WC Crane  
Crane, Indiana  
IN170023498

**Section 4.1.1.2**

1. Whenever the Field Sampling Plan mentions the "ground water protection standards" for a specific unit, it must be stated where in the permit application these standards may be found.

**Section 4.2.5**

2. The plan states that the pumping rate during purging will be reduced if turbidity is greater than 10 (ten) Nephelometric Turbidity Units (NTUs). This value should be changed to greater than 5 (five) NTUs.

**Section 4.2.6**

3. This section describes filtering samples for inorganic analysis and states that the filter will be pre-rinsed with deionized water. Include a statement that before the sample is collected the filter will be rinsed or purged with well water. This will prevent the sample being diluted with deionized water.
4. During sample filtration, it is not clear if the filter tubing will be changed for every sample filtration or if the tubing will be discarded and replaced by new tubing for each sample. The plan must specify the details about filter and/or filter pump decontamination.

**Table 4-10**

5. Clarify that the samples for metals includes two 1000 ml samples for totals and dissolved metals.
6. The table lists the analytical method for metals as SW-846 6020, an inductively coupled plasma - mass spectrometer method. SW-846 method 6010B or individual 7000 methods are also acceptable if they meet the target practical quantitation limits (PQLs) in Table 1-3 of the Draft Quality Assurance Project Plan.

**Section 4.2.8**

7. The decontamination steps itemized in this section are inconsistent with the SOP CRO38-5 and with the narrative that follows the list. The SOP and the narrative includes a hexane rinse. Please resolve the inconsistency. Also, clarify the statement about "the leachability of nitric acid on stainless steel".

**Section 4.2.11 Sample Shipment Procedures**

3. Blue Ice is not acceptable to cool samples for shipment

### **Laboratory Sample Custody**

9. Table 4-9 should be Table 4-10.

### **Section 43.6**

10. Provide a rationale for performing a matrix spike (MS) and matrix duplicate sample for inorganics and a matrix spike/matrix spike duplicate (MS/MSD) for organics. Either procedure is acceptable to **determine** precision provided the duplicate sample contains target analytes in concentrations that are adequate to determine the precision (e.g., an order of magnitude greater than the detection limit). If samples do not contain analytes or concentrations are near the detection level, a **MS/MSD** is more appropriate.

### **Appendix C**

11. The Field Sampling Plan must specify the exact devices to be used for ground water sampling, including serial numbers and model numbers, (i.e., DO meter, purging pumps, conductivity meter, water level indicator, **pH** meter, etc.).