



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

N00164.AR.000074  
NSWC CRANE  
5090.3a

IN REPLY REFER TO:

5090/H11.9  
0924

0 DEC 1990

28 Nov 1990

U.S. Environmental Protection Agency  
Region V, 5HR - 13  
Attn: Ms. Carol Witt-Smith  
230 South Dearborn Street  
Chicago, IL 60604

Dear Ms. Witt-Smith:

Submitted for review is the First RFI Progress Report, January 1990 through November 1990. The requirement for submittal of this report was set forth on the Corrective Actions portion of the Hazardous Waste Part B Permit issued to Naval Weapons Support Center Crane (NWSCC) in January 1990.

NWSCC point of contact is Mr. Jim Hunsicker, Code 0924, telephone 812-854-3233.

Sincerely,

J. B. ALLEN  
Public Works Officer  
By Appointment of the  
Commanding Officer

Encl:

- (1) First RFI Progress Report, January 1990 through November 1990.
- (2) Certification Statement

Copy to:

NORTHNAVFACENCOM, CODE 1422 (w/o encl)  
COMNAVSEASYSOM (SEA 6541)  
USAE-WES, BILL MURPHY GG-YH  
USAE-WILMINGTON, BOB MAGEE EN-GG



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**FIRST RFI PROGRESS REPORT  
JANUARY 1990 - NOVEMBER 1990  
NAVWPNSUPPCEN CRANE, INDIANA**

1. In compliance with the Corrective Action Requirements, Attachment III, of the NAVWPNSUPPCEN Crane Final RCRA Permit, the following RCRA Facility Investigation (RFI) Progress Report is submitted. The report summarizes the Installation Restoration Program (IRP) RFI's at various SWMUs during the report period (January 1990 through November 1990). Ensuing progress reports will be submitted on a bi-monthly basis. The next progress report, February 1991, will be comprised of the Corrective Action activities from December 1990 and January 1991.

2. **SITE:** AMMUNITION BURNING GROUND **SWMU:** 03/10

(a) Report "Dye Trace of Beech Creek Aquifer..."

Draft submitted USEPA:	29 JUN 1990
Draft approved by USEPA:	13 JUL 1990
Published final copy to EPA:	NOV 1990

(b) Second Dye Trace, Ammunition Burning Ground

Proposal Final to USEPA:	29 JUN 1990
Approved by EPA w/ modifications:	12 JUL 1990
Test conducted:	07 AUG 1990

Test generally unsuccessful because of apparent failure of injected dye to enter aquifer in sufficient quantity. New test tentatively scheduled for Spring 1991.

(c) Work Plan for Modified RFI Phase III Release Characterization, Ground Water, Ammunition Burning Ground.

Draft submitted to USEPA:	20 APR 1990
Reviewed by EPA, required revision:	29 JUN 1990
Final submitted w/revision:	02 NOV 1990

(d) Work Plan for RFI Phase II Release Assessment, Surface Water.

Draft submitted to USEPA:	06 AUG 1990
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(e) Emplacement of additional wells/exploration borings. Five additional wells were installed south and southeast of ABG to refine interpretation of geohydrology in Beech Creek limestone. Wells were 03C34 through 03C38, all screened in the Beech Creek. Wells were emplaced from Aug 1989 to 1 Oct 1989.

(f) RFI Phase III Soil Sampling And Analysis.

Draft submitted to USEPA: 06 AUG 90

Field Work:

Mobilization: 06 AUG 1990  
Start date: 06 AUG 1990  
Completion date: 22 AUG 1990  
& Complete: 100

Chemical Analysis:	% Complete
Organics	100
8240	100
8270	100
Explosives	100
Pesticides/PCBs	100
Inorganics	100

Physical Analysis Complete: 100  
(sieve/hydrometer analysis, water content, Atterberg limits, organic content)

(g) Schedule notes: (1) start of Part 2 of this study will not commence until analysis of Part 1 results. (2) two additional borings added to field work at request of EPA permit officer. (3) comments on draft work plan have been received from EPA.

3. **SITE:** DYE BURIAL GROUNDS SWMU: 02/11

(a) Work Plan for Interim Measure, Source Location  
Revised draft submitted to USEPA: 02 OCT 1990  
The Interim Measure will consist of a geophysical study to locate the trenches of buried dyes. The anticipated date of the geophysical study is January 1991.

(b) Work Plan for RFI Phase III Release Characterization, Ground Water

Draft submitted Crane/EPA: 04 OCT 1990

Field work consisting of emplacement of additional monitoring wells begun in September. Geological, hydrological interpretation proceeding.

- (c) Emplacement of additional wells/exploration borings. Two additional well sites were drilled. Screens were installed in 3 wells east and southeast of the DBG to evaluate potential flow in those directions. Wells were drilled and emplaced in September-October 1990.

4. **SITE:** ROCKEYE

SWMU: 10/15

- (a) Work Plan for RFI Phase III Release Characterization, Ground Water

Draft submitted to USEPA:

05 JUL 1990

Field work continued as follow up to Phase II work by installing additional monitoring wells around site. Geological, hydrological interpretation proceeding. Fifty-seven well clusters were installed between Aug 1988 and June 1989. An additional 4 borings (2 wells and 2 exploration borings) were completed northeast of the Rockeye facility in August of 1990.

- (b) RFI Phase II Soil Sampling And Analysis.

Draft submitted to USEPA:

11 SEP 1990

Field Work:

Mobilization:	04 SEP 1990
Start Date:	04 SEP 1990
Completion Date:	27 SEP 1990
% Complete:	100

Chemical Analysis: % Complete

Organics	100
8240	100
8270	100
Explosives	100
Pesticides/PCBs	N/A
Inorganics	N/A

Physical Analysis complete: 0

Schedule notes: (1) Rockeye facility was in operation during sampling period. Access to the site was limited. (2) Completion date was delayed 20 days by limited access. Effect on schedule not yet determined.

5. **SITE: DEMOLITION AREA**

SWMU: 06/09

- (a) Work Plan for RFI Phase II Release Assessment, Ground Water

Draft submitted to USEPA: 04 JUN 1990

Field work consisted of installing eight monitoring well clusters in and around Demolition Area. Geological, hydrological interpretation proceeding. Wells were installed from Nov 1989 to Feb 1990. First round of ground water sampling tentatively scheduled for the end of November. A total of 57 wells will be sampled at the Demolition Area and the Old Rifle Range.

6. **SITE: OLD RIFLE RANGE**

SWMU: 07/09

- (a) Work Plan for RFI Phase III Release Characterization, Ground Water

Draft submitted to USEPA: 04 JUN 1990

Field work consisted of installing ten monitoring well clusters in and around Old Rifle Range. Geological, hydrological interpretation proceeding. Wells were installed from Feb 1990 to Jun 1990.

- (b) RFI Phase II Soil Sampling And Analysis.

Draft submitted to USEPA: 05 JUL 1990  
Rcv'd USEPA comments: 27 JUL 1990  
Final Work Plan: 06 SEP 1990

Field Work:

Mobilization: 17 JUL 1990  
Start Date: 21 JUL 1990  
Completion Date: 06 AUG 1990  
% Complete: 100

Chemical Analysis:	% Complete
Organics	100
8240	100
8270	100
Explosives	100
Pesticides/PCBs	N/A
Inorganics	N/A

Physical Analysis complete: 0

- (c) Schedule notes: (1) Scheduled two borings/day but made only one boring/day. Access delayed by site activities. After completion of planned field work, additional site was identified. Additional 5 samples were taken.

7. SITE: OLD BURN PIT SWMU: 05/03

- (a) RFI Phase II Soil Sampling and Analysis.

Draft submitted to USEPA: 01 OCT 1990

Field Work:

Mobilization:	02 OCT 1990
Start Date:	02 OCT 1990
Completion Date:	19 OCT 1990
% Complete:	100

Chemical Analysis:	% Complete (as of 05 NOV 90)
Organics	100
8240	100
8270	100
Explosives	100
Pesticides/PCBs	20
Inorganics	10

Physical Analysis complete: 0

- (b) Schedule note: Added one additional boring to original plan.
- (c) On 20 April 1990 the Navy submitted and Interim Measure Report for the Old Burn Pit (and McComish Gorge). Some debris was removed but drums remained. The USEPA letter dated 29 June 1990 submitted comments to the report and requested a revision. The revised Interim Measure report was submitted to the USEPA on 24 August 1990. Interim Measure sampling of drums at the Old Burn Pit was conducted on 11 October 1990 by Engineer-Science under contract to the Northern Division. Samples were collected and analyzed for TCLP and explosives. A draft report was issued 19 November 1990. The draft will be forwarded to the USEPA for review and comment. The Interim Measure clean-up of the Old Burn Pit will be completed pending finalization of the Drum Sampling Report

IN5 170 023 498  
28 NOV 90

8. **SITE: MCCOMISH GORGE**

**SWMU: 04/02**

(a) **RFI Phase II Soil Sampling and Analysis.**

**Draft submitted to USEPA: 29 OCT 1990**

**Field Work:**

**Mobilization: 23 OCT 1990**

**Start Date: 23 OCT 1990**

**Completion Date: 17 NOV 1990**

**% Complete: 100**

**Chemical Analysis: % Complete (as of 05 NOV 90)**

**Organics**

**8240 30**

**8270 30**

**Explosives**

**Pesticides/PCBs**

**Inorganics**

**Physical Analysis complete:**

(b) **A revised Interim Measure report for the McComish Gorge was submitted 22 August 1990 by the Navy. No further action is needed for this measure.**

9. **SITE: COMPRESSED GAS CYLINDER SITE**

**SWMU: 31/00**

(a) **A Newly Identified SWMU Report was submitted by the Navy on 12 June 1990. On 29 June 1990 the USEPA approved the Interim Measure and requested the removal be documented in a detailed report. On 13 September 1990 the Navy submitted for review the Interim Measure report documenting the removal of the gas cylinders. A visual inspection indicated no soil contamination. The Navy anticipates, pending USEPA concurrence, the Interim Measure removal shall serve as the final action for the new SWMU.**

10. **Generic Soils Work Plan: On 02 DEC 1990 the Navy submitted a generic soils work plan to the USEPA. The USEPA commented on the work plan: 10 JAN 1990 the USEPA CRL Quality Assurance Section provided comments; and on 11 JUL 1990 the USEPA submitted additional comments. The Navy addressed the comments in site-specific work plans generated for soils media rather than finalize the generic soils plan.**

11. Surveying to locate all wells in State Plane coordinates and to determine the elevation of all well casings was completed at the ABG, Rockeye, Demolition Area and Old Rifle Range. Surveying was provided by the US Army Engineer District, Louisville Survey Branch using a Global Positioning System. Well location maps are being prepared for each site at two scales (generally 100 and 500 ft/inch). The reports for each SWMU will contain the surveying information.

12. The only change in the personnel during the reporting period has been the addition of the services of the Corps. of Engineers, Wilmington District, to assist in soils investigation. Bob Magee is the Project Manager. The District is under the direct supervision of the Navy's prime contractor, the Corps of Engineers, Waterways Experimental Station (Project Manager/Principal Investigator - William Murphy and Technical Monitor - Dr. J.H. May). Mr. Richard Hunt, Geologist, Waterways Experimental Station, will be retiring at the end of November 1990.

13. The projected work for the next reporting period:

- (a) Preparation of the RFI Phase II Soil Reports for Old Rifle Range, Rockeye, McComish Gorge, and the Old Burn Pit and the RFI Phase III, Part A, Soil Report for the Ammunition Burning Ground.
- (b) Preparation of the RFI Phase II Soils Work Plans for the SWMU #01/12, the Mustard Gas Burial Grounds, and SWMU #09/03, the Pesticide Control Area/R150 Tank Area.
- (c) Ground water sampling of 57 wells at the Demolition Area and the Old Rifle Range and preparation of the RFI Ground Water Reports for the Ammunition Burning Ground, Rockeye, Demolition Area, Dye Burial Grounds, and the Old Rifle Range.
- (d) Geophysical investigation at the Dye Burial Grounds.
- (e) Establishment of a Technical Review Committee (TRC).



Jeffrey Ciocco  
Remedial Project Manager  
Northern Division  
Naval Facilities Engineering Command



15 ROADS AND GROUNDS AREA	II SOILS		03/01/92	03/13/92	"	"	"	"	"	"	"	"
18 LOAD & FILL AREA BLDGS	I EMR	780	03/01/92	03/13/92	"	"	"	"	"	"	"	"
16 CAST HIGH FILL/EXPLOS	II-RFI?		04/01/92	04/12/92	"	"	"	"	"	"	"	"
19 PYROTECHNIC TEST AREA	I EMR	810	04/01/92	04/12/92	"	"	"	"	"	"	"	"
17 PCB CAP BURIAL/POLE YARD	II-RFI?		05/01/92	01/23/90	"	"	"	"	"	"	"	"
20 CAAA QA/QC TEST AREA	I EMR	840	05/01/92	05/12/92	"	"	"	"	"	"	"	"
18 LOAD & FILL AREA BLDGS	II SOILS		06/01/92	06/11/92	"	"	"	"	"	"	"	"
21 DRMO STORAGE LOT	I EMR	870	06/01/92	06/11/92	"	"	"	"	"	"	"	"
19 PYROTECHNIC TEST AREA	II SOIL/SW		07/01/92	07/11/92	"	"	"	"	"	"	"	"
22 LEAD AZIDE	I EMR	900	07/01/92	07/11/92	"	"	"	"	"	"	"	"
20 CAAA QA/QC TEST AREA	II SOILS		08/01/92	08/10/92	"	"	"	"	"	"	"	"
23 BATTERY SHOP, BLD. 36-38	I EMR	930	08/01/92	08/10/92	"	"	"	"	"	"	"	"
21 DRMO STORAGE LOT	II SOILS		09/01/92	09/09/92	"	"	"	"	"	"	"	"
24 SLUDGE DRYING BEDS	I EMR	960	09/01/92	09/09/92	"	"	"	"	"	"	"	"
FY92 (25)												

22 LEAD AZIDE	II SOILS		10/01/92	10/09/92	"	"	"	"	"	"	"	"
25 HIGHWAY 58, DUMPSITE A	I EMR	990	10/01/92	10/09/92	"	"	"	"	"	"	"	"
23 BATTERY SHOP, BLD. 36-38	II SOILS		11/01/92	11/08/92	"	"	"	"	"	"	"	"
26 HIGHWAY 58, DUMPSITE B	I EMR	1020	11/01/92	11/08/92	"	"	"	"	"	"	"	"
24 SLUDGE DRYING BEDS	II SOILS		12/01/92	12/08/92	"	"	"	"	"	"	"	"
27 ILLUMINANT BLDG 126	I EMR	1050	12/01/92	12/08/92	"	"	"	"	"	"	"	"
25 HIGHWAY 58, DUMPSITE A	II-RFI?		01/01/93	01/07/93	"	"	"	"	"	"	"	"
28 MAINTEN SHOP, BLDG. 1820	I EMR	1080	01/01/93	01/07/93	"	"	"	"	"	"	"	"
26 HIGHWAY 58, DUMPSITE B	II-RFI?		02/01/93	02/06/93	"	"	"	"	"	"	"	"
29 PCP DIP TANK, BLD 56	I EMR	1110	02/01/93	02/06/93	"	"	"	"	"	"	"	"
27 ILLUMINANT BLDG 126	II-RFI?		03/01/93	03/08/93	"	"	"	"	"	"	"	"
30 LAND FARM, SLUDGE APPLIC	I EMR	1140	03/01/93	03/08/93	"	"	"	"	"	"	"	"
28 MAINTEN SHOP, BLDG. 1820	II-RFI?		04/01/93	04/07/93	"	"	"	"	"	"	"	"
29 PCP DIP TANK, BLD 56	II-RFI?		05/01/93	05/07/93	"	"	"	"	"	"	"	"
30 LAND FARM, SLUDGE APPLIC	II GW		06/01/93	06/06/93	CLEAN							
FY93 (16)												

DAYS = DAYS AFTER THE EFFECTIVE DATE OF THE PERMIT (23 JAN 90) A PLAN IS DUE  
 IDWP DUE = "INTERNAL DRAFT WORK PLAN" DATE DUE TO NORDIV & NWSC  
 FDWP DUE = "FINAL DRAFT WORK PLAN" DUE TO EPA (DATES ISSUED IN RCRA PERMIT)  
 RCY CMNT = DATE THE EPA WILL 1) APPROVE THE FDWP UPON RECEIPT OR 2) SUBMIT  
 COMMENTS WHICH MUST BE ADDRESSED W/IN 30 DAYS OF NAVY RECEIPT  
 FDWP REV = DATE, IF NEEDED, TO SUBMIT REVISED FDWP BASED ON EPA'S COMMENTS  
 FWP = DATE "EPA APPROVED" "FINAL WORK PLAN", 30 DAYS TO IMPLEMENT SCHEDULE IN FWP  
 IMPLMENT = DAY ZERO OF SCHEDULE ESTABLISHED IN "EPA APPROVED WORK PLAN"  
 DRAFT REP = DATE "DRAFT REPORT" IS DUE TO EPA BASED ON ESTABLISHED SCHEDULE IN FWP  
 FINAL REP = DATE "FINAL REPORT" IS DUE TO EPA, ESTIMATING EPA DRAFT REVIEW PERIOD  
 \* = MCCONISH GORGE INTERIM CLEAN-UP  
 # = OLD BURN PIT INTERIM CLEAN-UP  
 @ = DATE NOTIFIED EPA OF NEWLY IDENTIFIED SMUJ [IV,D,1(a)&(b)]  
 \$ = SOURCE LOCATION WORK PLAN (GEOPHYSICS) TO PIN-POINT DYE TRENCHES  
 ^ = DATE PHASE I EMR (120 DAYS POST NOTIFICATION OF NEW SMUJ) IS DUE [IV,F(31)]  
 & = REMAINING II SOILS DATES ARE BASED ON EPA'S PHASE I APPROVAL DATES

♦ = PCB CAPACITOR BURIAL SITE SOURCE LOCATION WORK PLAN

II-RF1? = PERMIT LOOSELY STATES OTHER CORR. ACTION SHALL FOLLOW AS APPROPRIATE

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



SIGNATURE

J. D. PARIS  
Assistant Public Works Officer

10 DEC 1990

TITLE

DATE

Enclosure (2)