



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

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Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
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www.state.in.us/idem

June 28, 2001

FEDERAL EXPRESS

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

Dear Mr. Hunsicker:

Re: Draft Permit Renewal
Crane Surface Warfare Center
Crane, Indiana
IN5170023498

Enclosed please find a copy of the Draft Hazardous Waste Management Permit, Fact Sheet, and Public Notice for Crane Surface Warfare Center. In accordance with 329 IAC 3.1-13-10, a public notice for the Draft Permit Renewal has been sent to the Times-Mail, Bedford, Indiana, and is scheduled to be published on June 28, 2001. The public comment period will end August 13, 2001.

If you have any questions regarding this matter, please call (800) 451-6027, press 0, and ask for Mr. Jeff Workman at extension 2-3221, or call 317/232-3221.

Sincerely,

Thomas E. Linson, Chief
Permits Branch
Office of Land Quality

Enclosure

cc: IDEM Southwest Regional Office (with enclosure)
Hazardous Waste Compliance (with enclosure)
Mr. Doug Griffin, Corrective Action (with enclosure)
Mr. Alan Schmidt, Engineer (with enclosure)
Mr. Marty Harmless, Geologist (with enclosure)
Mr. Craig Barker, Chemist, (with enclosure)



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June 28, 2001

Dear Interested Party:

Re: Draft Hazardous Waste Management
Permit Renewal
Crane Surface Warfare Center
Crane, Indiana
IN5170023498

Enclosed is a copy of the public notice that appeared on June 28, 2001, in the Times-Mail, Bedford, Indiana. The Indiana Department of Environmental Management (IDEM) is announcing the availability for public review of a draft permit renewal, pursuant to Rule 329 IAC 3.1 and 40 CFR Part 264, for US Naval Surface Warfare Center to continue to operate a hazardous waste storage facility in Crane, Indiana. The IDEM is inviting public comments on the draft permit.

The draft permit specifies the conditions under which the facility must manage hazardous waste in order to maintain compliance with the State and Federal statutes and rules.

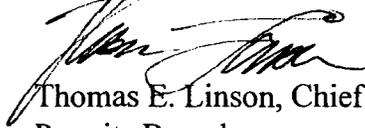
Included for your information is a copy of the Fact Sheet. The draft permit for Crane Surface Warfare Center is available for public inspection and copying at the Bedford Public Library, 1323 K Street, Bedford, Indiana, and at the IDEM, between the hours of 8:30 a.m. and 4:30 p.m., 100 North Senate Avenue, Room N1201, Indianapolis, Indiana. Copies of the Permit Conditions, Fact Sheet and Public Notice may also be viewed on the IDEM website at: www.state.in.us/idem/olq/permits/permit_notices/index.html. Copies of the draft permit may be obtained for fifteen (15) cents per page by contacting Mr. Jeff Workman at 317/232-3221.

The IDEM is accepting written comments on the draft permit for Crane Surface Warfare Center. Comments must be postmarked by August 13, 2001, and should be sent to:

Mr. Jeff Workman
Hazardous Waste Permits
Office of Land Quality
Department of Environmental Management
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015

Before taking final action on the permit application, the IDEM will give full consideration to all significant and relevant comments regarding this permit decision.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Linson', written over the printed name.

Thomas E. Linson, Chief
Permits Branch
Office of Land Quality

JAW/gjo

cc: IDEM Southwest Regional Office

PUBLIC NOTICE

Notice of Intent

Notice is hereby given by the Indiana Department of Environmental Management (IDEM) of intent to issue a Resource Conservation and Recovery Act (RCRA) permit renewal to US Naval Surface Warfare Center, Indiana, EPA identification number IN5170023498. This permit will allow Crane Surface Warfare Center to continue to operate a hazardous waste storage facility in accordance with 329 IAC 3.1 and 40 CFR Part 264. Crane Surface Warfare Center operates a weapon production, engineering, storage and demilitarization facility in Crane, Indiana. The United States Environmental Protection Agency (EPA) Region 5, concurrently gives notice of No Further Corrective Action for three Solid Waste Management Units (SWMU) and the deferral of remedial action at one SWMU to unit closure. This notice is given in accordance with 329 IAC 3.1, Section 7004 of the RCRA, and 40 CFR 124.10.

The IDEM and EPA are inviting public comments on the application, draft RCRA permit, SWMU No Further Action determinations, and SWMU deferral to closure. The public comment period for the draft permit begins on June 28, 2001, and ends on August 13, 2001. Written comments regarding the draft permit should be postmarked by the end of the comment period and sent to:

Mr. Jeff Workman
Hazardous Waste Permits
Office of Land Quality
Indiana Department of Environmental Management
100 North Senate Avenue
PO Box 6015
Indianapolis, Indiana 46206-6015

Written comments regarding the determination of SWMU No Further Corrective Action and SWMU deferral to closure should be postmarked by the end of the comment period and sent to:

Mr. Peter Ramanauskas
Corrective Action Section (DW-8J)
Waste Management Branch
Waste, Pesticides & Toxics Division
U.S. EPA Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Any interested person may request a public hearing. The request must be in writing and state the nature of the issues to be raised in the public hearing. The Commissioner shall hold a public hearing whenever he finds, on the basis of requests, a significant degree of public interest in a draft permit.

The permit application, draft permit, and fact sheets are available for public inspection and copying at the Bedford Public Library, 1323 K Street, Bedford, Indiana, and the IDEM, 100 North Senate Avenue, Room 1201, Indianapolis, Indiana from 8:30 a.m. until 4:30 p.m., weekdays. Copies of the Permit Conditions, Fact Sheets and Public Notice may also be viewed on the IDEM website at: www.state.in.us/idem/olq/permits/permit_notices/index.html. For further information please call (800) 451-6027, press 0, and ask for Mr. Jeff Workman at extension 2-3221, or call 317/232-3221.

The EPA administrative record and fact sheets are also available for viewing at the United States Environmental Protection Agency - Region 5, 77 West Jackson Boulevard, Chicago, IL, between 8:00 a.m. and 4:00 p.m. weekdays excluding Federal holidays. For further information contact Mr. Peter Ramanauskas at (312) 886-7890.

After the close of the public comment period, the IDEM and EPA will evaluate all comments received before issuing a permit decision. Each person who submitted written comments or requested notice of the decision will receive notice of the final decision. At the time of the final decision, the IDEM and EPA will respond to all significant comments, specify which provisions of the permit were changed, and indicate that additional comments have been included in the administrative record. The final decision will also include a reference to the procedures for appealing the decision.



Fact Sheet

US Naval Surface Warfare Center, Crane, Indiana

The Indiana Department of Environmental Management (IDEM) has prepared this fact sheet to inform the public of the process involved in issuing a Hazardous Waste Management Permit.

The Solid Waste Disposal Act, commonly known as the Resource Conservation and Recovery Act (RCRA) was passed in 1976. This allowed for the regulation of the management of hazardous waste. In the State of Indiana, the IDEM is authorized by the Indiana Environmental Statutes, IC 13-22, to administer the hazardous waste permit program and related hazardous waste management requirements. Any facility which treats, stores, and/or disposes of hazardous waste in the State of Indiana is required to obtain a final hazardous waste management permit. In addition, any hazardous waste facility which is issued a permit is required to provide corrective action for all releases of hazardous waste or of hazardous waste constituents from any solid waste management unit on-site.

Facility Description

US Naval Surface Warfare Center (Crane) operates a weapon production, engineering, storage and demilitarization facility. These operations necessitate the utilization of a hazardous waste storage unit.

Draft Permit Conditions Summary

I. Standard Conditions: These conditions are of a general nature and are required for all facilities that manage hazardous waste under a RCRA permit.

II. General Facility Conditions: The conditions are also general in nature and required for all facilities, but are more specific in determining operating requirements.

III. Container Storage Conditions: These conditions include waste identification, container management, secondary containment, and inspection requirements.

IV. Corrective Action Conditions: These conditions provide for the investigation and remediation of any releases from a Solid Waste Management Unit (SWMU) or area of concern (AOC). These conditions also require owners and operators to provide information, including sampling, to the IDEM to support whether or not a release has occurred.

V. Air Emission Standard Conditions: This condition addresses compliance with 40 CFR Part 264, Subpart CC, for air emissions from equipment at hazardous waste facilities.

Draft Permit Attachments

Part A Application: The Part A Application details the facility location, ownership, U.S. EPA identification number, type of business, type and quantity of hazardous waste managed and the hazardous waste management practice of the facility.

Attachment I - Facility Description: This attachment is meant for general information of the site and surrounding land.

Attachment II - Waste Characteristics/Waste Analysis Plan: This attachment contains the Waste Analysis Plan which describes, in detail, the procedures to be used by the facility to identify the hazardous wastes to be handled on-site. The Plan includes regulatory analytical methods, procedures for physical waste identification, and procedures to ensure the proper acceptance of off-site waste.

Attachment III - Container Management Plan: This attachment describes, in detail, the management practices the facility will utilize to ensure safe and proper storage of hazardous waste in containers. The Plan includes container handling procedures, inspection procedures and schedules, and secondary containment requirements.

Attachment IV - Procedures to Prevent Hazards: This attachment contains the security measures and preparedness and prevention procedures to ensure the safety of the workers on-site, as well as to prevent unauthorized access. This section is closely related to the Contingency Plan.

Attachment V - Contingency Plan: The Contingency Plan describes the actions facility personnel will take in response to

fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or water at the facility.

Attachment VI - Personnel Training: This attachment describes the training requirements for personnel working with hazardous waste at the facility.

Attachment VII - Closure Plan: This attachment describes, in detail, the activities and procedures that will be carried out to ensure that the hazardous waste management unit has been closed in accordance with 329 IAC 3.1. This attachment also describes the hazardous constituents of concern and the clean-up levels.

Attachment VIII - Corrective Action for Solid Waste Management Units: This attachment details the facility's obligation to notify the IDEM of SWMUs, and information pertaining to releases from any SWMUs. It also describes current conditions at the facility, and how the facility will investigate each SWMU and AOC for releases of hazardous waste(s) and hazardous constituents(s).

Public Participation

IDEM is conducting public participation to ensure all interested parties have an opportunity to comment on the State Draft Permit. The Public Comment Period extends from June 28, 2001 - August 13, 2001. The official public notice was published on June 28, 2001, in the Times-Mail, Bedford, Indiana. The public notice was also broadcasted over local radio station WGCL.

All comments regarding the State Draft Permit must be postmarked by **August 13,**

2001, (or e-mailed) and addressed to:

Mr. Jeff Workman
IDEM
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015
jworkman@dem.state.in.us

**To view a copy of the State Draft Permit,
visit the following locations:**

IDEM File Room
Room 1201
100 North Senate Avenue
Indianapolis, IN
8:30 a.m. - 4:30 p.m.

Bedford Public Library
1323 K Street
Bedford, Indiana

Copies of the Permit Conditions, Fact Sheet
and Public Notice may be viewed on the
IDEM website at:

*[www.state.in.us/idem/olq/permits/permit
notices/index.html](http://www.state.in.us/idem/olq/permits/permit
notices/index.html)*

For More Information, Contact:

Mr. Jeff Workman, IDEM
317/232-3221 or,
(800) 451-6027, press 0, request ext. 2-3221

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
FACT SHEET FOR NO FURTHER ACTION DETERMINATION
AT THREE SOLID WASTE MANAGEMENT UNITS
AND DEFERRAL TO CLOSURE AT ONE SOLID WASTE MANAGEMENT UNIT
NAVAL SURFACE WARFARE CENTER
CRANE, INDIANA**

Introduction

On July 31, 1995, the United States Environmental Protection Agency (U.S. EPA) renewed a Resource Conservation and Recovery Act (RCRA) permit for the U.S. Navy's Naval Surface Warfare Center - Crane Division (NSWC) located in Crane, Indiana. The permit became effective on September 14, 1995 for a duration of 5 years and contained both federal and state conditions. The Indiana Department of Environmental Management (IDEM) is currently renewing the entire RCRA Permit for NSWC as the State of Indiana has been authorized to administer the program in lieu of U.S. EPA. The 1995 permit established the Hazardous and Solid Waste Amendment (HSWA) Corrective Action Requirements and Compliance Schedules obligating the U.S. Navy to perform RCRA Facility Investigations (RFIs) at 33 Solid Waste Management Units (SWMUs), to conduct Corrective Measures Studies, and to implement corrective measures if needed.

This Fact Sheet explains the reasons for a proposed determination of No Further Action at 3 SWMUs. Interim Measures have removed contamination at 3 of the SWMUs. Remedial action at one SWMU has been deferred until unit closure. U.S. EPA is proposing No Further Action at these 3 SWMUs because U.S. EPA maintains authority on corrective action activities and decisions until such time that the State of Indiana reissues the operating permit. The U.S. EPA invites public comments on these proposed determinations and will make a final decision regarding its proposed No Further Action determination only after the public comment period (for the State Hazardous Waste Operating Permit) has ended and the information submitted during this time has been reviewed and responded to by the U.S. EPA. U.S. EPA is issuing this Fact Sheet as part of its public participation responsibilities under RCRA.

This document summarizes information that can be found in greater detail in the Interim Measures Reports, Risk Screening Documentation Reports, and other documents contained in the administrative record for this facility. U.S. EPA encourages the public to review these other documents in order to gain a more comprehensive understanding of the facility and the RCRA activities that have been conducted there.

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Interim Measures Conducted

Interim Measures were performed at 3 SWMUs as part of the RCRA Permit requirements for NSWC Crane. These 3 SWMUs are: #14/00 - Sanitary Landfill & Lithium Battery Disposal Area; #24/00 - Sludge Drying Beds A & B; and #26/08D - Highway 58 Dump Site B.

Remedial Action Deferral to Unit Closure - SWMU #06/09 - Demolition Range

The Demolition Range (DR) is a regulated open detonation unit under the RCRA Subpart X permit issued by U.S. EPA Region 5 in November 1999. This unit has been subdivided into the DR Army and the DR Navy. It has also been designated as SWMU #06/09 and has been undergoing corrective action investigations as required by the 1995 U.S. EPA RCRA Corrective Action Permit. The purpose of its inclusion in the corrective action permit was to investigate the presence of a potential manganese "hot spot" in the soils of the Demolition Range (DR) Navy.

As part of the work involved in permitting the unit for open detonation under the Subpart X permit, the DR underwent a risk assessment along with other open burning/open detonation units at NSWC. The risk assessment identified risks from two aquifers at the DR. The constituents of concern were identified as: Aluminum, Arsenic, Beryllium, Manganese, Nickel, and RDX. No risks were identified in the DR soils.

A conference call was held on June 27, 2000 between NSWC and its contractors, IDEM, and U.S. EPA Region 5 to discuss planned corrective action activities at SWMU #06/09. A question arose as to the practical benefits of the manganese "hot spot" study at the DR Navy because soils were not identified as a risk driver in the risk assessment. Soils contamination at the DR Navy can be addressed via the RCRA Subpart X permit at unit closure. The DR unit is a permitted open detonation unit with an estimated closure date of 2015.

Because the risk assessment identified groundwater as the sole risk pathway at the DR, groundwater is being monitored under the Subpart X permit and groundwater use has been restricted. The groundwater use restriction eliminates the risk pathway of groundwater ingestion. The Navy is required to perform semi-annual RCRA Subpart F groundwater detection monitoring at the DR under the permit. The groundwater wells used in the risk assessment study done at the DR are being monitored under the Subpart X permit. Although wells having elevated manganese levels specific to the DR Navy that were identified through previous RFI work are not part of the DR point-of-compliance well network, the DR Navy is located within the point-of-compliance. Previous RFI investigations indicate that groundwater seeping from the DR Navy would be collected by the NPDES permitted sedimentation ponds around the

perimeter of the DR or, because the aquifer underlying the DR Navy is discontinuous, migrate downward through fractures in the bedrock to be intercepted by the point-of-compliance wells.

U.S. EPA Region 5 has deferred remediation at the DR until unit closure or if groundwater monitoring detects contaminant migration requiring corrective action under the Subpart X permit.

SWMU #14/00 - Sanitary Landfill & Lithium Battery Disposal Area

SWMU #14/00 is known as the Sanitary Landfill and Lithium Battery Disposal Area. In 1981-82, the Indiana State Board of Health granted approval to bury neutralized lithium batteries in the landfill. Interim Measures were performed at this SWMU to locate, excavate, remove, and dispose of buried lithium batteries and contaminated soils based on anomalies detected in a 1994 geophysical investigation of the area.

The area was sampled for the list of metals found in 40 Code of Federal Regulations (CFR) Part 264 Appendix IX metals & Lithium. Sampling revealed concentrations of Arsenic, Beryllium, Cobalt, and Lithium above cleanup levels. The target cleanup levels for this Interim Measure were taken from the U.S. EPA Region 5 document *RCRA Corrective Action Guidance Human Data Quality Levels for RFI Projects, June 18, 1994* as site-specific cleanup levels had not been developed for NSWC Crane. Initial excavation began in 1995 and removed 22 crates of Lithium batteries and parts. Confirmation samples collected after excavation revealed levels of Arsenic, Beryllium, and Cobalt above cleanup levels. In 1996, an additional 12 crates of batteries were excavated after they were discovered during preparatory work for the construction of the Biofacility. Confirmation samples taken in 1996 showed Arsenic, Beryllium, Chromium, Cobalt, and Nickel to be above cleanup levels. Additional excavation was conducted and the final confirmation sample showed Chromium and Nickel levels below cleanup goals. A total of 34 crates of Lithium batteries and 337 tons of contaminated soil was removed. Soils were excavated down to bedrock. The area was backfilled with clean soil, graded, and seeded.

Arsenic, Beryllium, and Cobalt were detected in characterization and confirmation samples above cleanup levels. However, samples collected from SWMU background locations were also above the cleanup levels. Therefore, these background levels were used as the cleanup goals for these three constituents. Furthermore, a comparison of the background levels to current U.S. EPA Region 9 Residential Preliminary Remediation Goals (PRGs) shows that the remaining background and backfill concentrations for all constituents meet a residential use standard. Region 9 PRGs are risk-based concentrations, derived from standardized equations combining exposure information assumptions with EPA toxicity data. They are considered by the Agency to be protective for humans (including sensitive groups) over a long-term exposure period. The Region 9 PRGs are included in U.S. EPA Region 5's

1998 Quality Assurance Project Plan Policy as valid Risk-Based Screening Levels which can be used to support decisions of No Further Action for individual chemical constituents at a particular SWMU.

In November 1999, NSWC Crane performed a Basewide Background Study to determine the natural background levels of metals in soils present on the base. Background samples were collected from three background areas representing four different soil depositional environments. Each of these areas and specific sampling locations within these areas met numerous criteria to ensure that background soil samples represent “true background” areas or areas that have not been affected by past or present NSWC Crane operations. A general comparison of SWMU specific background values to the Mean Basewide Background Levels obtained from the draft report and the 95% Upper Tolerance Limit (UTL) shows that the elevated levels of these metals are naturally occurring throughout NSWC. The 95% UTL is a descriptive statistic of the basewide background data which indicates that the background sample concentrations are below those values 95% of the time. Exceedances of 95% UTL suggest that the concentration is statistically significant.

As seen in the table below, Arsenic, while above the 1994 IM Cleanup level is below the Region 9 residential use PRG for dermal exposure and ingestion. The maximum detected levels in the confirmation samples as well as the backfill samples fall within the levels detected in the basewide background study (95% UTL). While the confirmation soil value for Beryllium is above the 1994 IM Cleanup level, it is below the integrated Region 9 residential use PRG for soil inhalation and ingestion. The maximum backfill value for Beryllium falls within the levels detected in the basewide background study. While the confirmation value for Cobalt is above the 1994 IM Cleanup level, it is below the Region 9 residential use PRG for soil ingestion. The maximum backfill value for Cobalt falls within the levels detected in the basewide background study.

The U.S. EPA RCRA Corrective Action program traditionally does not require cleanup to below naturally occurring background levels.

Element	1994 IM Cleanup Level (mg/kg)	Current Region 9 Residential PRG (mg/kg)	Maximum Final Confirmation Sample (mg/kg)	Maximum SWMU Background/ Backfill (mg/kg)	Mean Basewide Background (mg/kg)	Basewide Background 95% UTL	Migration to Ground Water (mg/kg) DAF = 20
Chromium	940	210	14.9	19.6	16.1	29.1	38
Lithium	1600	1600	362	12.8	15.7	29.4	NA
Nickel	1600	1600	9.3	14.5	11.7	18.7	130
Arsenic	0.97	22	7.3	9.4	5.20	9.6	29
Beryllium	0.4	150	1.4	0.81	0.47	0.85	63
Cobalt	0.1	4700	73.3	8.2	8.62	21.7	NA

All contaminated soil has been excavated. Soil to groundwater cross-media contamination is not likely at the remediated SWMU as groundwater was not encountered at the excavation, soils were excavated down to bedrock, and groundwater monitoring after remediation around the sanitary landfill has not indicated problems with contamination. Remaining constituent concentrations in the soils are below soil screening levels for migration to groundwater. NSWC continues to perform semi-annual groundwater monitoring of the sanitary landfill as part of a detection monitoring program in place under IDEM supervision. Surface water is not present at this SWMU. Ecological receptors would have been exposed to the contaminated soil at the site by traveling through the site or digging at the site. Ecological receptor exposure has been limited by the removal of contaminated soil sources to naturally occurring background levels. The excavated area has been backfilled, graded, and seeded.

SWMU #24/00 - Sludge Drying Beds A & B

SWMU #24/00 consists of Sludge Drying Beds A & B. Sludge Bed A is located at the sewage treatment plant which processes industrial and sanitary sewer wastewater. Based upon process knowledge, it was believed that Sludge Bed A had the possibility of being contaminated with metals, pesticides, and/or herbicides. After characterization sampling of Sludge Bed A failed to identify any constituents over the target cleanup criteria, Sludge Bed A was deleted from further consideration under Interim Measures.

Sludge Bed B was located in the northwest section of NSWC Crane. The site was used to dewater sludges from both industrial and sanitary sewage treatment systems. Sludge Bed B had been out of service for a significant amount of time and was overgrown with vegetation. It was believed that this area was possibly contaminated with metals, pesticides, and/or herbicides.

Sludge Drying Bed B was sampled for the list of constituents found in 40 CFR Part 264 Appendix IX. Sampling results revealed all constituents below target cleanup levels except for 4,4 - DDT, Arsenic, Beryllium, and Cobalt. The target cleanup levels for this Interim Measure were taken from the U.S. EPA Region 5 document *RCRA Corrective Action Guidance Human Data Quality Levels for RFI Projects, June 18, 1994* as site-specific cleanup levels had not been developed for NSWC Crane. Approximately 378 tons of sludge and concrete were excavated from Sludge Bed B, classified as special waste, and transferred to the on-site landfill. Confirmation sampling revealed all results below target levels except 4,4 - DDT, Arsenic, Beryllium, and Cobalt. Additional excavation was performed on an area approximately 5 feet long by 10 feet wide with the DDT sample location in the center. Once the removal was complete, five additional samples were taken and analyzed for Appendix IX constituents. Arsenic, Beryllium, and Cobalt were the only remaining constituents above cleanup levels.

Arsenic, Beryllium, and Cobalt were detected in characterization and confirmation samples above cleanup levels. However, samples collected from virgin borrow sources were also above the cleanup levels. Therefore, these background levels were used as the cleanup goals for these three constituents. Furthermore, a comparison of the background levels to current Region 9 Residential Preliminary Remediation Goals (PRGs) shows that the remaining background and backfill concentrations for all constituents meet a residential use standard. Region 9 PRGs are risk-based concentrations, derived from standardized equations combining exposure information assumptions with EPA toxicity data. They are considered by the Agency to be protective for humans (including sensitive groups) a long-term exposure period. The Region 9 PRGs are included in Region 5's 1998 Quality Assurance Project Plan Policy as valid Risk-Based Screening Levels which can be used to support decisions of No Further Action for individual chemical constituents at a particular SWMU.

- A general comparison of SWMU specific background values to the Mean Basewide Background Levels obtained from the draft report and the 95% Upper Tolerance Limit (UTL) shows that the elevated levels of these metals are naturally occurring throughout NSWC. The 95% UTL is a descriptive statistic of the basewide background data which indicates that the background sample concentrations are below those values 95% of the time. Exceedances of 95% UTL suggest that the concentration is statistically significant. All confirmation sampling and backfill sampling values of Arsenic, Beryllium, and Cobalt, while above the 1994 IM Cleanup levels, fall below Region 9 residential PRG values and are within basewide background levels (95% UTL).

The U.S. EPA RCRA Corrective Action program traditionally does not require cleanup to below naturally occurring background levels.

Element	1994 IM Cleanup Level (mg/kg)	Current Region 9 Residential PRG (mg/kg)	Maximum Confirmation Sample (mg/kg)	Maximum SWMU Background/ Backfill (mg/kg)	Mean Basewide Background (mg/kg)	Basewide Background 95% UTL	Migration to Ground Water (mg/kg) DAF = 20
4,4 - DDT	0.008	1.7	0.00027	Non Detect	Not Tested	NA	32
Arsenic	0.97	22	5.3	9.4	5.20	9.6	29
Beryllium	0.4	150	0.478	0.81	0.47	0.85	63
Cobalt	0.1	4700	3.3	8.6	8.62	21.7	NA

Upon review of the results, USEPA approved the area for backfilling. The excavated area has been backfilled, graded, and seeded.

All contaminated soil has been excavated. Soil to groundwater cross-media contamination is not likely at the remediated SWMU as groundwater was not encountered at the excavation. Remaining constituent concentrations in the soils are below soil screening levels for migration to groundwater. Surface water is

not present at this SWMU. Ecological receptors would have been exposed to the contaminated soil at the site by traveling through the site or digging at the site. Ecological receptor exposure has been limited by the removal of contaminated soil sources to naturally occurring background levels.

SWMU #26/08D - Highway 58 Dump Site B

SWMU #26/08D is known as Highway 58 Dump Site B (HDSB). This area was a debris dump site located at the bottom of a stone cliff. The surrounding area is heavily wooded. The SWMU area is currently exposed bedrock as all soils and debris have been removed. The SWMU has not been backfilled.

Excavation of HDSB occurred in 1995-96. Approximately 849 tons of soil containing non-friable asbestos material (transite), 120 tons of soil contaminated with barium and lead classified as hazardous waste, and 44 tons of soil classified as non-hazardous "special waste" were removed. Minimal backfilling was done due to the entire area being excavated down to bedrock.

The area was sampled for 40 CFR Part 264 Appendix IX analytes, hazardous constituents, RCRA hazardous waste characteristics, and Asbestos. Site characterization sampling revealed concentrations of Antimony, Arsenic, Barium, Beryllium, Cobalt, Lead and Asbestos above cleanup levels. The target cleanup levels for this Interim Measure were taken from the U.S. EPA Region 5 document *RCRA Corrective Action Guidance Human Data Quality Levels for RFI Projects, June 18, 1994* as site-specific cleanup levels had not been developed for NSWC Crane. The following organics were also detected above cleanup levels: Benzo[b]fluoranthine, Benzo[k]fluoranthine, Benzo[a]pyrene, Dibenz[a,h]anthracene, and Benzo[g,h,i]perylene. Excavation progress samples indicated that these organics were no longer present above cleanup levels in remaining soils. Analytical confirmation sample results indicated that the remaining soil barium & lead concentrations were below cleanup levels.

Arsenic, Beryllium, and Cobalt were detected in characterization, progress, and confirmation samples above cleanup levels. However, the results of background samples collected from the on-site borrow pit, off-site virgin soil borrow sources, and the topsoil from the biofacility construction area were also high in these metals indicating that these compounds are naturally present above the cleanup levels throughout NSWC. Therefore, these background levels were used as the cleanup goals for these three constituents. Furthermore, a comparison of the background levels to current Region 9 Residential Preliminary Remediation Goals (PRGs) shows that the remaining background and backfill concentrations for all constituents meet a residential use standard. Region 9 PRGs are risk-based concentrations, derived from standardized equations combining exposure information assumptions with EPA toxicity data. They are considered by the Agency to be protective for humans (including sensitive groups) a long-term exposure

period. The Region 9 PRGs are included in Region 5's 1998 Quality Assurance Project Plan Policy as valid Risk-Based Screening Levels which can be used to support decisions of No Further Action for individual chemical constituents at a particular SWMU.

A general comparison of SWMU specific background values to the Mean Basewide Background Levels obtained from the draft report and the 95% Upper Tolerance Limit (UTL) shows that the elevated levels of these metals are naturally occurring throughout NSWC. The 95% UTL is a descriptive statistic of the basewide background data which indicates that the background sample concentrations are below those values 95% of the time. Exceedances of 95% UTL suggest that the concentration is statistically significant.

While the maximum confirmation sample for Arsenic is above the 1994 IM Cleanup level, it is below the Region 9 residential use PRG for dermal exposure and ingestion. While the confirmation soil value for Beryllium is above the 1994 IM Cleanup level, it is below the integrated Region 9 residential use PRG for soil inhalation and ingestion. While the confirmation value for Cobalt is above the 1994 IM Cleanup level, it is below the Region 9 residential use PRG for soil ingestion.

The U.S. EPA RCRA Corrective Action program traditionally does not require cleanup to below naturally occurring background levels.

Element	1994 IM Cleanup Level (mg/kg)	Current Region 9 Residential PRG (mg/kg)	Maximum Progress/ Confirmation Sample (mg/kg)	Maximum SWMU Background (mg/kg)	Mean Basewide Background (mg/kg)	Basewide Background 95% UTL	Migration to Ground Water (mg/kg) DAF = 20
Barium	5500	5400	4510	123	68.8	147	1600
Lead	500	400	280	17	11.7	19.7	NA
Arsenic	0.97	22	11.2	11.4	5.20	9.6	29
Beryllium	0.4	150	0.92	0.74	0.47	0.85	63
Cobalt	0.1	4700	12.7	12.6	8.62	21.7	NA

All contaminated soil has been excavated to bedrock. Ecological exposure to contaminated soil has been eliminated by removal of contaminated soils to naturally occurring background levels. The Navy will perform a groundwater investigation at this SWMU as, prior to excavation, hazardous waste was present on top of bedrock and the possibility exists that contaminants leached into groundwater prior to remediation. Surface water is not present at this SWMU.

Determination of No Further Action

Based on this information and the information contained in the administrative record, there are no unacceptable present or potential future human health or ecological risks at SWMUs 14/00 or 24/00. At SWMU 26/08D, there are no unacceptable present or future human health or ecological risks associated with the soils at the site. Investigation of any potential groundwater risks will occur during a future RFI.

There is no further action required at SWMUs 14/00, 24/00, and for soils only at 26/08D. Remedial work at SWMU 06/09 has been deferred until unit closure or if groundwater monitoring detects contaminant migration requiring corrective action under the Subpart X permit. Please note, however, that this does not preclude U.S. EPA or IDEM from requiring further action in the future if we obtain any information indicating that such action is needed to protect human health or the environment. Nothing in this Fact Sheet should be interpreted as prohibiting U.S. EPA or IDEM from taking any actions necessary to protect human health and the environment, including ordering additional corrective action if necessary.

Public Participation

U.S. EPA solicits input from the community on this proposal for No Further Action at these three SWMUs. U.S. EPA has set a public comment period to coincide with the IDEM Hazardous Waste Management Permit Renewal comment period. This comment period begins June 28, 2001 and ends on August 13, 2001.

The administrative record is available at the following location:

United States Environmental Protection Agency - Region 5

77 West Jackson Boulevard (DW-8J)

Chicago, IL 60604

(312) 886-7890

Between 8:00 a.m. and 4:00 p.m. (Monday - Friday excluding Federal holidays)

Comments will be summarized and responses provided in the Response to Comments. The Response to Comments will be drafted at the conclusion of the public comment period and incorporated into the administrative record. To send written comments or obtain further information, contact:

Mr. Peter Ramanauskas

United States Environmental Protection Agency - Region 5

77 West Jackson Boulevard (DW-8J)

Chicago, IL 60604

(312) 886-7890

Between 8:00 a.m. and 4:00 p.m. (Monday - Friday excluding Federal holidays)

Written comments concerning this proposal should include the name and address of the writer, a concise Fact Sheet for the comments, and the supporting relevant facts upon which the comments are based.

Written comments should be postmarked by the end of the comment period.