

**ATTACHMENT 7-1**

**Example Waste Minimization Permit Conditions  
(From Naval Surface Warfare Center, Crane, Indiana)**

H. WASTE MINIMIZATION

This condition applies to NSWC Crane and all other tenant activities. A combined report for both the Navy and the Army may be submitted.

1. Waste Minimization Certification

The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that the Permittee generates to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment, in accordance with 40 CFR 264.73(b)(9) and Section 3005(h) of RCRA, 42 U.S.C. Section 6925(h). The certification shall be recorded and maintained in the operating record until closure of the facility.

2. Hazardous Waste Reduction Plan

The Permittee shall develop a Hazardous Waste Reduction Plan (HWRP) that will be the basis of the program referred to in I.H. 1. above. The Permittee shall submit the HWRP to U.S. EPA within 180 days of the effective date of this permit. The HWRP shall be updated and submitted to U.S. EPA at least every other year by April 1st in order to reflect changes in the hazardous waste operations or in other operations described in the HWRP. At a minimum, the HWRP shall:

- a. Identify amounts and types of all hazardous waste generated, by waste stream;
- b. Describe source of generation and waste management method for each stream;
- c. Develop a block and/or flow diagram for each process that generates hazardous waste;
- d. Identify the costs associated with hazardous waste generation, including, but not limited to, disposal costs, insurance costs, liability costs, and costs associated with wasted raw materials;
- e. Provide a list of technically feasible and economically practicable waste reduction measures, addressing both source reduction (including, but not limited to, improved housekeeping practices) and recycling options; and

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Example Waste Minimization Permit Conditions (continued)

- f. Provide a program plan and schedule for implementing technically feasible and economically practicable waste reduction over time. This plan shall:
- (1) Be certified by a professional engineer and a knowledgeable Company representative prior to submittal to U.S. EPA for review;
  - (2) Evaluate the potential for the transfer of hazardous waste and/or hazardous constituents from one environmental medium to another, and potential for substituting a less hazardous substance for a more hazardous one, and insure that subsequent implementation of the plan will result in a net decrease in the risk of an adverse impact to human health and the environment;
  - (3) Include quantifiable goals for waste reduction and identify methods for tracking waste minimization results (measurement should be in the form of measurement index that relates hazardous waste/constituent generation to production); and
  - (4) Be revised to incorporate waste minimization/reduction options for all changes and additions to facility production.

The following guidance documents should be used in developing the HWRP:

Waste Minimization Opportunity Assessment Manual\*

EPA/625/7-88/003, July 1988. Available through: EPA, Region 5  
Office of RCRA, 77 W. Jackson Blvd., Chicago, Illinois 60604  
Telephone 312/353-0398

Facility Pollution Prevention Guide\*

EPA/600/R-92/088, May 1992. Available through: NTIS  
5285 Port Royal Road, Springfield, Virginia  
Telephone 212/264-0505.

Region 5 Hazardous Waste Reduction Plan (HWRP)/Waste Reduction  
Implementation (WRIR) Guidance

Region 5 guidance document. Available through: EPA Region 5  
Office of RCRA, 77 W. Jackson Blvd., Chicago, Illinois 60604  
Telephone 312/353-0398

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Additional U.S. EPA Requirements

Any newly developed U.S. EPA guidance documents that are applicable.

Industry-Specific Information

Industry-specific manuals available from CERI, Technology Transfer, U.S. EPA, P.O. Box 19963, Cincinnati, Ohio 45219-0963:

| Title  | EPA Number   |
|--|--------------|
| Guides to Pollution Prevention                   |              |
| The Fabricated Metal Industry                    | 625/7-90/006 |
| The Printed Circuit Board Manufacturing Industry | 625/7-90/007 |
| The Photoprocessing Industry                     | 625/7-90/012 |
| The Automotive Repair Industry                   | 625/7-90/013 |

3. Waste Reduction Implementation Report (WRIR)

The Permittee shall implement the feasible waste reduction techniques in accordance with the schedule in the HWRP and submit a WRIR to the U.S. EPA. The Permittee shall submit an implementation report by April 1st every year. In the years when both an updated HWRP and WRIR are due, the Permittee may submit one report that includes all the required elements of both reports. The WRIR shall include the following information:

- a. The certification (as described in I.H. 1. above) signed by the owner or operator of the facility or his authorized representative;
- b. A description of the efforts undertaken during the year to reduce the volume or quantity, and toxicity of wastes generated;
- c. A description of the changes in volume or quantity and toxicity of wastes actually achieved during the year in comparison to the previous years. (Information for the years prior to 1984 is only required to the extent such information is available.) The measurement of these changes shall be in the form of a measurement index that relates hazardous waste/constituent generation to production (see page 3 of the Region 5 Hazardous Waste Reduction Plan (HWRP)/Waste Reduction Implementation Report (WRIR) Guidance Document).

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The description shall address all media, and should ensure that there is a net reduction of risk of an adverse impact to human health and the environment. The changes in volume or quantity and toxicity shall be compared to the goals that were outlined in the HWRP;

- d. A brief explanation of the reasons that certain options did not meet the expected goals for waste reduction, if this is the case; and
- e. The waste reduction options which are identified as implementable in the plan, but have not been implemented, along with the factors inhibiting their implementation.

4. Biennial Report

The Permittee's biennial report shall contain the information in I.H.3.a-c. above, as required by 40 CFR 264.75(h)-(j).

5. Submittal of Plans/Reports

The HWRP and the WRIR shall be submitted by the due dates above to the address indicated in I.D.17.

- \* It is important to note that the Waste Minimization Opportunity Assessment Manual was developed to assist facilities to reduce the volume and/or the toxicity of the RCRA hazardous wastes generated. More recently the Facility Pollution Prevention Guide was developed and made available to industries. This guide addresses all waste types and activities that contribute to pollution. Facilities are encouraged to use either, or both of the documents as an aid in the planning process.

Naval Surface Warfare Center Permit Modification Language, 1995

G. WASTE MINIMIZATION

The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that the Permittee generates to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment, in accordance with 40 CFR §264.73(b)(9) and Section 3005(h) of RCRA, [42 U.S.C. §6925(h)]. The certification shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility.

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In addition, the Permittee's biennial report shall contain the following:

1. A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated, as required by 40 CFR §264.75(h);
2. A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years, as required by 40 CFR §264.75(i). Information for the years prior to 1984 is only required to the extent such information is available; and
3. The certification signed by the owner or operator of the facility or his authorized representative, as required by 40 CFR §264.75(j).