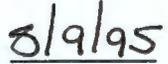


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| Table of Contents | 1 - 2 | 70 | 8/3/95 | 1 - 2 | 71 | 8/15/95 |
| 14.0, Pollution Prevention | -- | -- | -- | i - 9 | 0 | 8/15/95 |
| | | | | | | |

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IMPLEMENTATION NOTICE

This section was originally High-Level Waste, which was moved to Section 15.0. High Level Waste was TWRS specific and did not apply to the ECM or sitewide requirements. Pollution Prevention is a new section that has been added; some of this information was in Section 7, "Solid Waste Management," and has been extracted and expanded to become its own section.

No major impacts are foreseen, except the deletion of High Level Waste, and the addition of Pollution Prevention. This section has been expanded to provide sitewide information on the requirements for facilities on pollution prevention.

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Table of Contents

| <u>Number</u> | <u>Title</u> | <u>Rev</u> | <u>Effective Date</u> |
|---------------|---|------------|-----------------------|
| 1.0 | Introduction | 0 | 03/01/93 |
| | CHANGE 1 (all) | | 06/10/94 |
| | CHANGE 2 (all) | | 03/28/95 |
| | CHANGE 3 (all) | | 05/09/95 |
| 2.0 | Air Quality | 1 | 06/08/95 |
| 3.0 | Hazardous Waste Management | 2 | 08/03/95 |
| 4.0 | National Environmental Policy Act/State Environmental Policy Act | 1 | 06/01/93 |
| | CHANGE 1 (all) | | 03/28/95 |
| | CHANGE 2 (all) | | 05/09/95 |
| 5.0 | Records, Reporting and Response Activities | 2 | 03/22/94 |
| 6.0 | Restoration and Remediation | 2 | 03/22/94 |
| | CHANGE 1 (17, 18) | | 06/10/94 |
| | CHANGE 2 (2, 3) | | 07/12/94 |
| | CHANGE 3 (1, 2, 6) | | 03/28/95 |
| | CHANGE 4 (all) | | 06/12/95 |
| 7.0 | Solid Waste Management | 1 | 12/15/93 |
| | PAGE CHANGE 1 (1, 2, 2a) | | 01/15/94 |
| | PAGE CHANGE 2 (17 through 30) | | 05/25/94 |
| | PAGE CHANGE 3 (31, 35, 46, 53, 54, 55, 61) | | 06/10/94 |
| | PAGE CHANGE 4 (9, 10, 10a) | | 03/28/95 |
| 8.0 | Water Quality | 1 | 06/01/93 |
| | PAGE CHANGE 1 (5, 6) | | 04/13/94 |
| | PAGE CHANGE 2 (63) | | 06/10/94 |
| | PAGE CHANGE 3 (65) | | 03/28/95 |
| 9.0 | New and Modified Facilities | 0 | 03/01/93 |
| | PAGE CHANGE 1 (2) | | 03/28/95 |
| 10.0 | Regulatory Permitting | 2 | 09/01/93 |
| | CHANGE 1 (all) | | 06/12/95 |
| 11.0 | Environmental Training | 2 | 12/15/94 |
| | CHANGE 1 (15, 29, 30, 31) | | 03/28/95 |
| | CHANGE 2 (30, 30a) | | 05/09/95 |
| | CHANGE 3 (6, 7) | | 06/12/95 |

Table of Contents

| <u>Number</u> | <u>Title</u> | <u>Rev</u> | <u>Effective Date</u> |
|---------------|---|------------|-----------------------|
| 12.0 | Preservation of Cultural and Natural Resources | 2 | 06/30/95 |
| 13.0 | Environmental Compliance Officers, Central Environmental Committee, Environmental Reviews PAGE CHANGE 1 (5, 6, 7, 8, 9, 10, 11) | 0 | 12/01/93 02/01/94 |
| 14.0 | Pollution Prevention | 0 | 08/15/95 |
| 15.0 | High-Level Waste | 0 | 06/30/95 |
| APPENDIXES | | | |
| A | Glossary | 2 | 03/28/95 |
| B | Environmental Statutes, Regulations and Orders Environmental to Westinghouse Hanford Company | 1 | 07/15/93 |
| C | Derived Concentration Guides PAGE CHANGE 1 (25) | 1 | 07/15/93 04/13/94 |
| D | Maximum Contaminant Levels | 0 | 03/01/93 |
| E | Compliance Agreements and Consent Orders | 0 | 03/01/93 |
| F | List of Hazardous Substances and Reportable Quantities | CANCELED | 12/01/93 |
| G | 90-Day Accumulation Area Dangerous Waste Training Plan (See Section 11.0) | CANCELED | 12/15/94 |
| H | NEPA Site-Wide Categorical Exclusions (SWCX) | 2 | 03/28/95 |
| I | Central Environmental Committee Charter | 0 | 12/01/93 |
| J | Westinghouse Hanford Company RCRA Contingency Planning Program CHANGE 1 (all) | 0 | 04/19/94 06/10/94 |
| KEYWORD INDEX | | 3 | 08/03/95 |

Pollution Prevention

| | |
|---|---|
| 1.0 PURPOSE | 1 |
| 2.0 SCOPE | 1 |
| 3.0 DEFINITIONS | 1 |
| 4.0 RESPONSIBILITIES | 1 |
| 4.1 Facility/Project Managers | 1 |
| 4.2 Cost Management Program Office and Pollution Prevention | 2 |
| 4.3 WHC Recycling | 2 |
| 4.4 WHC Procurement | 3 |
| 4.5 WHC Technical Training | 3 |
| 4.6 ICF KH Environmental Programs and Integration | 3 |
| 4.7 ICF KH Energy Management | 3 |
| 4.8 BCSR Network Performance Management | 4 |
| 5.0 REQUIREMENTS | 4 |
| 5.1 Waste Generator Group (Facility/Project) Pollution Prevention Program | 4 |
| 5.1.1 Program documentation | 4 |
| 5.1.2 Goals | 4 |
| 5.1.3 Funding | 4 |
| 5.1.4 Procedures | 5 |
| 5.1.5 Tracking and reporting | 5 |
| 5.1.6 Pollution prevention opportunity assessments | 5 |
| 5.1.7 Pollution prevention opportunity implementation | 5 |
| 5.1.8 Design | 6 |
| 5.1.9 Program evaluation | 6 |
| 5.2 WHC Sitewide Program | 6 |
| 5.2.1 Planning | 6 |
| 5.2.2 Goals | 6 |
| 5.2.3 Funding | 6 |
| 5.2.4 Awareness | 6 |
| 5.2.5 Tracking and reporting | 7 |
| 5.2.6 Source reduction and recycling programs | 7 |
| 6.0 DESIGNATED REVIEWING ORGANIZATIONS | 7 |
| 7.0 REFERENCES | 7 |
| Table 14.6. Section 14.0 Bases/Drivers | 9 |

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Pollution Prevention**1.0 PURPOSE**

The purpose of this section is to establish requirements and guidelines for WHC to comply with federal, state, and Department of Energy (DOE) pollution prevention and waste minimization requirements.

2.0 SCOPE

This section describes the WHC Pollution Prevention (includes waste minimization) Program to be implemented to comply with pollution prevention and waste minimization requirements contained in WAC 173-303, 173-307, and 51-11; 40 CFR 262, 264, and 265; 10 CFR 835; Executive Orders (E.O.) 12843, 12856, 12873, and 12902; and DOE 5400.1 and 5820.2A. The requirements of this section apply to organizations with responsibility for implementing the WHC Pollution Prevention program, including all dangerous, radioactive, mixed, and sanitary waste generators; and treatment, storage, and disposal (TSD) unit operators on the Hanford Site.

3.0 DEFINITIONS

See Appendix A for complete listing of definitions.

4.0 RESPONSIBILITIES**4.1 Facility/Project Managers**

1. Establish and track against pollution prevention goals
2. Establish resource requirements and activity schedules for pollution prevention
3. Prioritize pollutants and waste streams for reduction
4. Conduct pollution prevention opportunity assessments (PPOA) on priority waste streams and identify cost-effective pollution prevention opportunities
5. Implement cost-effective pollution prevention opportunities
6. Incorporate pollution prevention into the design of new projects or activities
7. Evaluate program implementation and performance
8. Participate in the sitewide pollution prevention program
9. Implement corrective actions
10. Documenting programs by maintaining: goals; budget, activities, and schedule; pollution prevention opportunity assessments; and pollution prevention reporting and opportunity implementation information (see WHC-SD-WM-EV-014).
11. Report quarterly and annually on program progress and accomplishments.

Pollution Prevention

12. Verify that pollution prevention practices have been considered for all operations and new projects.

4.2 Cost Management Program Office and Pollution Prevention

Pollution Prevention Group organizes the WHC Pollution Prevention Program and has been assigned the role of lead coordinator among site contractors to support RL in the development and implementation of the sitewide program.

1. Develop a pollution prevention program that complies with waste minimization regulations, and applicable federal, state, and DOE pollution prevention requirements.
2. Integrate pollution prevention practices into WHC operating procedures
3. Provide pollution prevention opportunity assessment (PPOA) training, and develop incentive and awareness programs.
4. Develop tracking and reporting systems.
5. Collect information for reporting summary pollution prevention and waste minimization efforts to DOE and regulatory agencies.
6. As a best management practice, assist generator groups in meeting the requirements for the following activities:
 - Setting quantitative and qualitative goals
 - Determining waste generation baselines
 - Assessing and implementing pollution prevention opportunities
 - Preparing input to regulatory required reports
 - Development and implementation of their pollution prevention programs
7. Lead the development and implementation of sitewide initiatives except for material exchange, recycling, and affirmative procurement.
8. Implement legislative and DOE pollution prevention program requirements
9. Evaluate program annually through comparing changes in waste quantity, volume, and toxicity that are achieved with quantities generated in previous year (DOE 5400.1).

4.3 WHC Recycling

1. Develop, implement, and maintain programs to recycle, reuse, and excess materials, commodities, and recoverable scrap with onsite and offsite end users
2. Assisting and advising procurement organizations in the purchasing of recycled and recyclable products.

Pollution Prevention

4.4 WHC Procurement

1. Implementing practices that minimize the procurement of ozone-depleting substances.
2. Providing support to activities that reduce procurement of hazardous materials.
3. Implementing an affirmative procurement program for products that have a post-consumer recycled content. Provide annual reports of affirmative procurement of products with post-consumer recycled content.

4.5 WHC Technical Training

1. Provide pollution prevention awareness training through Hanford General Employee Training.
2. Ensure training meets state and regulatory requirements.

4.6 ICF KH Environmental Programs and Integration

1. Develop and implement the ICF KH pollution prevention program and the associated affirmative procurement and ozone depleting substance reduction program.
2. Collect and consolidate ICF KH pollution prevention information and data for reporting and tracking purposes.
3. Assist ICF KH waste generator groups in achieving pollution prevention and waste minimization activities.
4. Ensure pollution prevention activities and approaches satisfy regulatory and other requirements.
5. Provide a single point-of-contact to coordinate pollution prevention activities within ICF KH and external organizations.

4.7 ICF KH Energy Management

1. Develop and implement new energy conservation measures and initiatives at the Hanford Site to ensure cost effective operations.
2. Track and analyze energy usage data to identify new energy savings opportunities.
3. Cultivate employee and community energy awareness.
4. Function in accordance with the Hanford Ten Year Energy Management Plan (EMP).
The EMP:

Pollution Prevention

- Outlines the strategy, organization, and activities that will assist the Hanford Site with reducing energy and water consumption from FY 1995 through FY 2005 according to established baselines while meeting Hanford's mission.
- Designates that facilities will be designed, built and operated using either Washington State Non-Residential Energy Code WAC 51-11 or 10 CFR 435, as applicable.

4.8 BCSR Network Performance Management

1. Develop and implement the BCSR pollution prevention program and the associated affirmative procurement and ozone depleting substance reduction program.
2. Collect and consolidate BCSR pollution prevention information and data for reporting and tracking purposes.
3. Ensure pollution prevention activities and approaches satisfy regulators and site requirements.

5.0 REQUIREMENTS

NOTE: *Italicized references within parentheses are Basis.*

5.1 Waste Generator Group (Facility/Project) Pollution Prevention Program

5.1.1 Program documentation

Develop and maintain pollution prevention program documentation: goals; budget, activities, and schedule; pollution prevention opportunity assessments; and pollution prevention reporting and opportunity implementation information (see WHC-SD-WM-EV-014). This requirement replaces a previous requirement for facility waste minimization plans and still meets planning and implementation requirements. (*WAC 173-307-30, DOE 5400.1 Chapter III.4.b and 4.c, and EPA Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program 58 FR 31113*).

5.1.2 Goals

Establish goals for minimizing the volume and toxicity of all wastes that are generated (*WAC 173-307-030, DOE 5820.2A Chapter VI.3.d, 10 CFR 835 and EPA Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program 58 FR 31113*).

5.1.3 Funding

Identify and request direct funding (i.e not funded through overhead) for waste minimization and pollution prevention activities through activity data sheets (ADS) and report activities and percent of funding in the A-106 section of ADS (*Executive Orders 12856 and 12088, and Office of Management and Budget (OMB) Circular A-106 requirements*).

Pollution Prevention**5.1.4 Procedures**

Integrate waste minimization practices into operating procedures (*DOE 5820.2A Chapter III-3. (c)(1)*).

5.1.5 Tracking and reporting

Track material use, waste generation rates, and recycling rates (*EPCRA 313; WAC 173-303 and 173-307; and 40 CFR 264*).

Report on material usage, waste generation, recycling, and progress made due to implementing pollution prevention practices (*EPCRA 313, RCRA Sec. 2016, WAC 173-307, and 40 CFR 264*).

Certify on hazardous waste manifest a program is in place to minimize the volume and toxicity of waste (*WAC 173-303-180*).

5.1.6 Pollution prevention opportunity assessments

Conduct pollution prevention opportunity assessments (PPOA) on hazardous chemicals/products and waste generating activities (*WAC 173-307-030*).

5.1.7 Pollution prevention opportunity implementation

Implement source reduction opportunities for hazardous products/chemicals. Implement source reduction, recycling, and treatment opportunities for all waste streams including sanitary, dangerous, radioactive and mixed. The following are some of the methods for meeting this requirement:

- Modify processes to reduce dangerous and radioactive waste generation
Substitute materials to reduce toxic chemical use and release
- Substitute materials to reduce dangerous and radioactive waste generation
- Procure capital equipment to implement pollution prevention opportunities
- Reuse or recycle dangerous and radioactive wastes
- Use affirmative procurement practices to encourage the purchase and use of recovered materials
- Reuse or recycle sanitary wastes

(*40 CFR 264, WAC 173-307-030, Executive Orders 12843, 12856, and 12873, DOE 5820.2A*).

Pollution Prevention

5.1.8 Design

Design pollution prevention principles and practices into new facilities, and incorporate pollution prevention into facility upgrades and process modifications (*1994 Washington State Non-Residential Energy Code, Washington Administrative Code WAC 51-11; and DOE 5820.2a Chapter III.3.c and DOE 6430.1A*).

5.1.9 Program evaluation

Evaluate program annually through comparing changes in waste quantity, volume, and toxicity that are achieved with quantities generated in previous year (*DOE 5400.1*).

5.2 WHC Sitewide Program

5.2.1 Planning

Develop and update the Hanford Site Waste Minimization and Pollution Prevention Awareness Program Plan and the WHC Pollution Prevention Program Implementation Plan at least every three years (*DOE 5400.1 Chapter III.4.b*).

Develop Hanford site and WHC pollution prevention policy statement (*WAC 173-307-030, DOE 5400.1 Chapter III.4.b, and EPA Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program 58 FR 31113*).

5.2.2 Goals

Establish site and company goals for minimizing the volume and toxicity of all wastes that are generated (*WAC 173-307-030, DOE 5820.2A Chapter VI.3.d, and EPA Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program 58 FR 31113*).

5.2.3 Funding

For direct funded activities (i.e., not funded through overhead), identify and request funding for waste minimization and pollution prevention activities through activity data sheets (ADS) and report activities and percent of funding in the A-106 section of activity data sheets (ADS) (*Executive Orders 12856 and 12088, and Office of Management and Budget (OMB) Circular A-106 requirements*).

5.2.4 Awareness

Establish a pollution prevention employee awareness program, including elements for employee awareness through specific training, special awareness campaigns, and incentives and award programs (*DOE 5400.1 Chapter III.4.c*).

Pollution Prevention

5.2.5 Tracking and reporting

Enhance site material inventory and waste tracking for pollution prevention purposes as a best management practice.

Determine and report waste generation baseline in DOE Annual Report on Waste Generation and Waste Minimization Progress (*DOE 5400.1*).

Collect information and prepare all regulatory required pollution prevention reports and plans for the Hanford Site (*40 CFR 262, 264, and 265; WAC 173-307-040 and 080*).

5.2.6 Source reduction and recycling programs

Establish site-wide source reduction and recycling programs for dangerous, radioactive, mixed, and sanitary waste streams (*40 CFR 264; WAC 173-307-030; Executive Orders 12843, 12856, and 12873; DOE 5820.2A*).

Meet the federally mandated requirements of the Energy Policy Act of 1992 and the assigned goals on energy reduction. Develop and implement energy conservation requirements identified in the Hanford Energy Management Ten Year Plan (WHC-SP-0156) (*Executive Orders 12759 and 12902, 10 and 10 CFR 435 and 436*).

6.0 DESIGNATED REVIEWING ORGANIZATIONS

Organizations listed below are responsible for this process. If you have any questions about this procedure, please contact the process owner.

| <u>Designated Reviewing Organizations</u> | <u>CMPOC</u> |
|---|--------------|
| Environmental Services (process owner) | PSO/ES |
| Reengineering Program Office | STS |
| Procurement & Materials Management | CFO/PMM |
| Engineering Technical Support Services | ICF KH |
| Infrastructure Programs | ICF KH |
| Network Operations | BCS |

7.0 REFERENCES

NOTE: For additional references, see Appendix B of this manual.

173-307 WAC, Publication 91-2, *Pollution Prevention Planning: Guidance Manual for Chapter 173-307 WAC*.

42 U.S.C. 11001 et seq., *Superfund Amendments and Reauthorization Act of 1986*.

42 U.S.C 11013, 11028, et seq., *Emergency Planning and Community Right-to-Know Act*.

42 U.S.C. 13101 et seq., *Pollution Prevention Act of 1990*.

Pollution Prevention

42 U.S.C. 6901 et seq., *Resource Conservation and Recovery Act of 1976.*

DOE 5400.1, *General Environmental Protection Program.*

DOE 5820.2A, *Radioactive Waste Management.*

DOE/RL-91-31, Rev. 1, *Hanford Site Waste Minimization and Pollution Prevention Awareness Program Plan.*

EPA/625/7-88/003, *Waste Minimization Opportunity Assessment Manual.*

Executive Order 12843, *Procurement Requirements and Policies for Ozone-Depleting Substances.*

Executive Order 12856, *Federal Agency Compliance with Right-to-Know Laws and Pollution Prevention Requirements.*

Executive Order 12873, *Federal Acquisition, Recycling and Waste Prevention.*

Executive Order 12902, *Energy Efficiency and Water Conservation at Federal Facilities.*

Federal Facility Compliance Act of 1992, as amended, Public Law 102, 386.

SEN-37-92, *Waste Minimization Crosscut Plan Implementation*, Secretary of Energy Notice.

WAC 173-303, "Dangerous Waste Regulations," *Washington Administrative Code.*

WAC 173-307, "Plans," *Washington Administrative Code.*

WHC-SD-WM-EV-014, Rev. 2, *Guide for Preparing and Maintaining Generator Group Pollution Prevention Program Documentation.*

Pollution Prevention

Table 14.6. Section 14.0 Bases/Drivers.

| REGULATORY DRIVERS | | OTHER DRIVERS | WHC-CM-7-5 IMPLEMENTING SUBSECTION | COMMENTS |
|---|----------------------------|--|------------------------------------|--|
| Federal | State/Local | | | |
| 10 CFR 435 40 CFR 262 40 CFR 264 40 CFR 265 EPCRA 313 RCRA Sec. 2016 | WAC 173-307 WAC 173-303 | DOE 5400.1 DOE 5820.2A DOE 6430.1A EO 12088 EO 12843 EO 12856 EO 12873 | 5.1 | Waste generator group pollution prevention requirements. |
| 40 CFR 262 40 CFR 264 40 CFR 265 10 CFR 835 | WAC 173-307 | DOE 5400.1 EO 12088 EO 12843 EO 12856 EO 12873 | 5.2 | Sitewide program pollution prevention and waste minimization requirements. |

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