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**1.0 Purpose and Scope**

The intent of this Standard Operating Guidance (SOG) is to insure that EPA Region 10 Managers, OSCs, Emergency and Rapid Response Support (ERRS) contractor Response Managers, Management, and anyone involved in ERRS contracting, understand what is expected by EPA Region 10 in making ERU responses involving ERRS more environmentally-friendly. This SOG describes the current thinking on what makes a site more environmentally-friendly, describes the procedures to ensure these ideas have been considered during the planning of a response, and describes the expected reporting requirements for ERRS and EPA staff.

**2.0 Introduction**

EPA Region 10 implemented an Environmental Management System (EMS) for the Seattle office in 2005. In August 2009, three regional and national documents were issued that were intended to encourage staff to optimize their external work to enhance their overall environmental outcome. These three documents are:

1. "Region 10 Superfund, RCRA, LUST, and Brownfields Clean and Green Policy" was issued on August 13, 2009.

2. "Principles for Greener Cleanups" issued by OSWER on August 27, 2009
3. "Superfund Green Remediation Strategy" issued by OSWER in August 2009

Annually, ERU performs between ten and twenty responses involving the ERRS contractor. These responses vary in duration, size, and complexity but all of them could be optimized to better meet EPA's national and regional priorities as well as the region's EMS goals and reduce their environmental footprint.

### **3.0 National EPA Priorities**

January 2010, EPA Administrator Lisa P. Jackson announced her priorities for 2010 are:

- 3.1 Taking action on climate change;
- 3.2 Improving air quality;
- 3.3 Assuring the safety of chemicals;
- 3.4 Cleaning up our communities;
- 3.5 Protecting America's waters;
- 3.6 Expanding the conversation on environmentalism and working for environmental justice; and
- 3.7 Building strong state and tribal partnerships

### **4.0 Region 10 EMS Goals**

In April 14, 2008, EPA Region 10 committed to acting in an environmentally, economically and fiscally sound, responsible manner, including:

- 4.1 Promote pollution prevention within the Region;
- 4.2 Lead by example by reducing our carbon footprint;
- 4.3 Measure our progress towards our environmental goals;
- 4.4 Comply with all applicable environmental and energy legal and regulatory requirements, Executive Orders (EO) (especially EO 13423), and local requirements;
- 4.5 Continually improve our environmental performance;
- 4.6 Educate our employees regarding our environmental goals;
- 4.7 Strive for more environmentally, economically and socially sustainable practices in our regional operations; and
- 4.8 Share our performance with the public.

### **5.0 OSWER Principles for Greener Cleanups**

- 5.1 Consistent with existing laws and regulations, it is OSWER policy that all cleanups:
  - 5.1.1 Protect human health and the environment;
  - 5.1.2 Comply with all applicable laws and regulations;
  - 5.1.3 Consult with communities regarding response action impacts consistent with existing requirements; and
  - 5.1.4 Consider the anticipated future land use of the site.

- 5.2 The following five elements of a green cleanup assessment may assist in the evaluation and documentation used in selecting and implementing protective cleanup activities.
  - 5.2.1 Total Energy Use and Renewable Energy Use
  - 5.2.2 Air Pollutants and Greenhouse Gas Emissions
  - 5.2.3 Water Use and Impacts to Water Resources
  - 5.2.4 Materials Management and Waste Reduction
  - 5.2.5 Land Management and Ecosystems Protection
- 5.3 As tools are developed and deployed and when it is feasible to use greener cleanup approaches, OSWER cleanup programs will document how these five elements were considered and implement best practices to reduce the environmental footprint of cleanups. The nature of greener cleanup assessments can vary with the complexity of the site, program and community priorities, and the availability of tools. Assessment activities should be performed in a transparent manner involving the community and other stakeholders and describe how the programs have considered the items described in 5.1 and 5.2 above.
- 5.4 OSWER will evaluate progress in reducing the environmental footprint of protective cleanups.
- 5.5 Greener Cleanup approaches span multiple cleanup programs and reflect a developing set of practices. Legal authorities differ by cleanup program; environmental issues and community priorities differ from region-to-region and site-to-site; and greener cleanup best practices and assessment tools are at the early stages of development and testing. Therefore, Greener cleanup approaches may vary from site to site and program to program and will continue to evolve by incorporating lessons from the growing state of knowledge.

## **6.0 Regional Green Cleanup Objectives**

- 6.1 Region 10's Clean and Green Policy goal is to enhance the environmental benefits of federal cleanup programs by promoting technologies and practices that are sustainable. The objectives of this Clean and Green Policy are to:
  - 6.1.1 Protect human health and the environment by achieving remedial action goals;
  - 6.1.2 Support sustainable human and ecological use and reuse of remediated land;
  - 6.1.3 Minimize impacts to water quality and water resources;
  - 6.1.4 Reduce air toxics emissions and greenhouse gas production;
  - 6.1.5 Minimize material use and waste production; and
  - 6.1.6 Conserve natural resources and energy.
- 6.2 The Clean and Green Policy establishes a preference for green cleanup technologies. Use of these and other green cleanup technologies will be standard unless a site-specific evaluation demonstrates impracticability or

favors an alternative green approach:

- 6.2.1 100% use of renewable energy (green power), and energy conservation and efficiency approaches including EnergyStar equipment;
- 6.2.2 Cleaner fuels, diesel emissions controls and retrofits, and emission reduction strategies;
- 6.2.3 Water conservation and efficiency approaches including WaterSense products;
- 6.2.4 Sustainable site design;
- 6.2.5 Industrial material reuse or recycling within regulatory requirements;
- 6.2.6 Recycling of materials generated at or removed from the site;
- 6.2.7 Environmentally Preferable Purchasing;
- 6.2.8 Greenhouse gas emission reduction technologies;
- 6.2.9 Concrete made with Coal Combustion Products replacing a portion of traditional cement;
- 6.2.10 Methane capture at landfill sites; and
- 6.2.11 Environmental Management System (EMS) practices such as reducing the use of paper by moving to fully electronic transmittal of project documents, and implementation of waste reduction and recycling programs at all work sites.

## **7.0 Formulating the Environmentally Preferred Practices**

- 7.1 Contract Level. Many practices to make a Removal Action “greener” could be implemented at practically every site. In order to reduce the burden on the OSC, these actions will be identified at the contract level and become part of the contractor’s standard practice when planning site work. The EPA PO and CO will work with ERRS management to create a process to ensure these considerations are made. Examples include developing contacts with vendors that can supply ultra low sulfur diesel (ULSD) and ULSD mixed with 20% biodiesel fuel whenever possible for on- and off-road equipment, retrofitting equipment with diesel emissions controls, recycling office trailer waste, reducing the paper requirements for cost documentation, and other steps to meet the requirements outlined in the regional policy.
- 7.2 Task Order Level. Each Removal Action has its own set of opportunities and limitations with regard to environmentally preferred practices. The OSC and ERRS Response Manager should begin to consider these during the first pre-planning site walk when applicable or when the Task Order is assigned to the contractor. Consultation with the Greener Removal Coordinator is highly encouraged.

## **8.0 Documenting the Environmentally Preferred Practices Used**

When the OSC has determined a Removal Action is justifiable and as the Action Memo is being developed, the OSC should meet with the Greener Removal Coordinator (Kathy Parker), the Greener Cleanups Coordinator (Sean Sheldrake), the ERRS Response Manager, and possibly the ERRS PO (Gary Sink), to discuss possibilities and

effectiveness of environmentally preferred practices to apply to the proposed Removal Action.

The tasks that will be implemented to make the Removal Action more environmentally-friendly should be described in a “Environmentally Preferred Practices” section in the Action Memo. The 2009 Action Memo template already requires a description of “any significant conservation measures and/or best management practices to be employed during the response action to avoid or minimize adverse effects on the environment” in Long Form Action Memo section V.A.1 “Proposed Action Description” and Short Form Action Memo section V.B.1. “Planned Removal Action.” The purpose of writing the environmentally preferred activities into the Action Memo is three-fold. The Action Memo communicates these activities and potential costs to EPA management and allows them the opportunity to approve or disapprove of the activities. When the Action Memo is placed in the Administrative Record (AR) and made available to the public, it communicates to the public what EPA plans to do to make the Removal Action more environmentally-friendly. Finally, it captures the “Environmentally Preferred Practices” in the same place as the Removal Action, thus making it a reliable reference for the OSC and ERRS Response Manager as they set up and perform the Removal Action.

## **9.0 Implementing the Environmentally Preferred Practices**

The stage of a Removal Action with the greatest opportunity for implementing change is the very beginning – mobilization and set-up of the site. This is the time when the OSC, Response Manager and Field Cost Accountant should all thoroughly investigate the local possibilities for materials re-use and recycling and finding environmentally-friendly equipment to rent. Also at this time, workers are traveling to the site so there are opportunities to reduce fossil fuel use through carpooling and alternative transportation methods. Hotels and rental vehicles can be chosen that are more environmentally-responsible. On-site recycling of paper, metal, glass, and plastic can be set up. Large potable water containers can be made available on-site rather than providing individual drinking bottles of water for site workers. Site workers can be briefed on better work practices such as:

- 9.1 Turn off the engine of a vehicle if it will not be used within 30 seconds;
- 9.2 Route and sign documents electronically rather than printing;
- 9.3 Carpooling daily to and from the site.

The end of the Removal Action is when the next greatest opportunity for implementing change occurs as this is when solid and hazardous waste may be going off-site, equipment needs to be decontaminated, disposed of, or demobilized, and people will be traveling home.

## **10.0 ERRS Environmentally Preferred Practices Annual Report**

On an annual basis, ERRS will prepare a report for EPA summarizing all of the Environmentally Preferred Practices implemented at Removal Actions for that fiscal year. The Greener Removals Coordinator will use the report to determine trends and new areas of focus. The report and recommendations will be provided to regional management and EPA headquarters.

## **11.0 Summary of OSC Responsibilities**

- 12.1 After determining what the Removal Action goals are for the site, consider ways to meet national and regional goals for making the Removal Action more environmentally-friendly.
- 12.2 Meet with the Greener Removal Coordinator (Kathy Parker), the Greener Cleanups Coordinator (Sean Sheldrake), the ERRS Response Manager, and possibly the ERRS PO (Gary Sink), to discuss possibilities and effectiveness of environmentally preferred practices for the proposed Removal Action.
- 12.3 Determine the net cost/savings estimate for the more environmentally-friendly site activities and write the Environmentally Preferred Practices and costs into the action memo.
- 12.4 During setup and implementation of the Removal Action, implement the Environmentally Preferred Practices where feasible and continue to investigate and implement other ways to make the Removal Action more environmentally-friendly.

**12.0 Appendices**

Appendix A Example Wording for Removal Action Memo

**13.0 Acronyms**

AR	Administrative Record
CO	Contracting Officer
EMS	Environmental Management System
EO	Executive Order
EPA	Environmental Protection Agency
ERRS	Emergency and Rapid Response Support
ERU	Emergency Response Unit
LUST	Leaking Underground Storage Tanks
OSC	On Scene Coordinator
OSWER	Office of Solid Waste and Emergency Response
PO	Purchasing Officer
RCRA	Resource Conservation and Recovery Act
SOG	Standard Operating Guidance
ULSD	Ultra Low Sulfur Diesel

## **Appendix A. Example Wording for Removal Action Memo**

Place the following or similar wording in its own section under V.A.1 “Proposed Action Description” of the long form or V.B.1. “Planned Removal Action” of the short form Action Memo. Eliminate any bulleted items you know you won’t be implementing on your removal action. Add anything especially significant that you will be doing on your site that is not reflected by the list.

### *“Environmentally Responsible Practices*

This removal action will incorporate the following environmentally responsible practices:

- Use of biodiesel fuel in all applicable vehicles;
- Use of cleaner (ultra-low sulfur diesel) fuels in all applicable vehicles;
- Diesel emissions controls and retrofits and emission reduction strategies;
- Water conservation;
- Industrial material reuse or recycling where appropriate and practical;
- Recycling of materials generated at or removed from the site;
- Greenhouse gas emission reduction technologies;
- Reduction in consumption of paper by using electronic transmittal and storage of project documents and data;
- Implementation of waste reduction and recycling programs at the work site.”