

## Public Comment Period on the REDOX Complex Engineering Evaluation/Cost Analysis Document

The U.S. Department of Energy Richland Operations Office (DOE-RL) is seeking public comment on the results of an Engineering Evaluation/Cost Analysis (EE/CA) that evaluates removal action alternatives for the Reduction-Oxidation (REDOX) Complex located in the 200 West Area of the Hanford Site. A 30-day public comment period runs from December 12, 2016 to January 20, 2017. The DOE-RL would like to hear your input on the alternatives and the recommended approach.

### Background

The [REDOX](#) Complex was used for chemical separation of plutonium from irradiated fuel rods from 1952 through 1967. These operations resulted in contaminated buildings and structures within the complex, including the 202S Building (Canyon, Silo, and Annex), 276S Hexone Storage Tanks (276-S-141 and 276-S-142), and 293S Nitric Acid and Iodine Recovery Building.



*The REDOX Plant is located on the Hanford Site in eastern Washington State*

Unoccupied since the mid-1960s, the REDOX buildings/structures in the scope of this EE/CA have deteriorated despite ongoing surveillance and maintenance (S&M) activities. The shut-down process for REDOX was conducted in the 1960s, and a variety of activities have occurred to further decontaminate and maintain the structure. However, increased contamination levels have been observed in some buildings and could continue as the facilities age. If not timely addressed, the condition could present a threat to human health and the environment (HHE), as well as increase the costs of S&M in the near term.

### Get Involved!

#### Public Comment Period

December 12, 2016 – January 20, 2017

You can submit comments via mail or email by January 20, 2017 to:

Rich Buel

U.S. Department of Energy

Richland Operations Office

P.O. Box 550, MSIN A7-75

Richland, WA 99352

Phone: 509-376-3375

Email: REDOXEECA2016@rl.gov

A removal action is required at the REDOX Complex to mitigate potential threats to HHE posed by contamination. REDOX Complex structures addressed in this EE/CA include:

- 202S Building (including the Canyon, Silo and Annex)
- 293S Nitric Acid and Iodine Recovery Building (293S Building)
- 276S Hexone Storage Tanks - a Resource Conservation and Recovery Act of 1976 (RCRA) unit

## What is the difference between a removal and a remedial action?

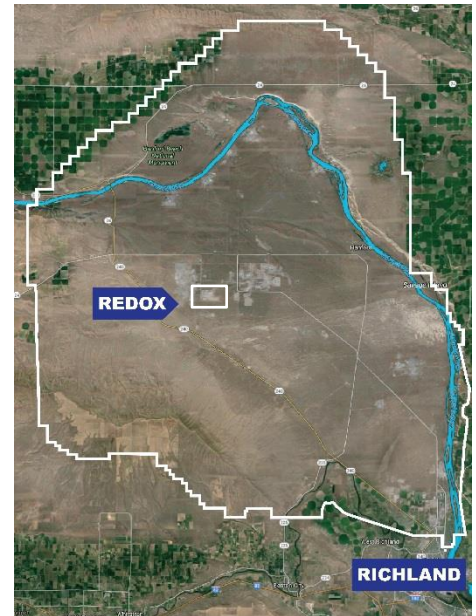
*Removal actions* are immediate, short-term responses intended to protect people from immediate threats posed by hazardous waste sites. Examples of removal actions are excavating contaminated soil, erecting a security fence, or stabilizing a berm, dike, or impoundment. Removal actions are also used at DOE sites to perform demolition of buildings and structures.

*Remedial actions* are long-term cleanups designed to prevent or minimize the release of hazardous substances and to reduce the risk and danger to public health or the environment. The REDOX Complex is scheduled to undergo a remedial investigation in upcoming years; however, a Record of Decision (ROD) is not expected until other decisions are made on surrounding pipelines and waste sites. The remedial action that will address the REDOX Complex will be evaluated as part of the 200-CR-1 Operable Unit.

For more information on the difference between removal and remedial action, click [here](#).

## How is the removal action evaluated?

DOE is evaluating the removal action through the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) process. Under CERCLA, an EE/CA evaluates alternatives for Non-Time Critical Removal Actions (NTCRA). This is consistent with the joint DOE and EPA, 1995, *Policy on Decommissioning of Department of Energy Facilities Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*, which establishes the CERCLA NTCRA process as the preferred approach for decommissioning surplus DOE facilities. Under this policy, an NTCRA may be taken when DOE determines that the action will prevent, minimize, stabilize, or eliminate a risk to HHE. When DOE determines that a CERCLA NTCRA is necessary, DOE is authorized to evaluate, select, and implement the removal action that DOE determines is most appropriate to address the potential risk posed by the release or threat of release of hazardous substances.



## How Can You Become Involved?

A 30-day public comment period on the EE/CA for the REDOX Complex runs from December 12, 2016 through January 20, 2017. The DOE-RL would like your feedback and will consider all comments before issuing an Action Memorandum. There is no public meeting scheduled at this time.

This EE/CA document can be viewed on line at:

<http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0073619H> and is also available for review at the Public Information Repositories.

Please submit comments by **January 20, 2017** to:

Rich Buel, U.S. Department of Energy  
 Richland Operations Office  
 P.O. Box 550, A7-75  
 Richland, WA 99352  
 Email: REDOXEECA2016@rl.gov



## What is being proposed?

DOE-RL proposes to address hazards at the REDOX Complex through a variety of actions including removing legacy waste, performing hazard abatement activities inside the 202S Building, demolishing the annex portions of the 202S Building, and demolishing the 293S Building. The action would reduce the potential threats of contamination by allowing workers access to clean up radioactive and hazardous contaminants in the complex.

Grouting within the 202S Building is not proposed in any alternatives because all activities are interim actions to place the building in a more stable configuration in the near term. Grouting alternatives will be evaluated during the remedial decision process.

This EE/CA evaluated alternatives for the removal action, based on effectiveness, implementability, and cost, and are summarized here by their primary actions:



*Aerial view of the REDOX Complex*

Alternative 1:	<ul style="list-style-type: none"><li>• No Action</li></ul>
Alternative 2:	<ul style="list-style-type: none"><li>• S&amp;M of the REDOX Complex structures</li><li>• Hazard abatement of the 202S galleries</li><li>• Demolition preparation activities in the 202S Silo Service Area</li><li>• Demolition of the 293S Building and the waste removal activities associated with the closure of the 276S Hexone Storage Area</li><li>• Grouting of the belowgrade areas of the 293S Building</li></ul>
Alternative 3:	All Alternative 2 actions <i>plus</i> :
Alternative 4:	<ul style="list-style-type: none"><li>• Demolition preparation of the 202S Annex and Canyon abovegrade</li></ul> All Alternative 3 actions <i>plus</i> : <ul style="list-style-type: none"><li>• Demolition of the 202S Annex structure (lower sections attached to the main 202S building)</li></ul>

Further detailed information on each alternative is contained within the EE/CA. All alternatives were evaluated against established removal action objectives and compared in terms of effectiveness, implementability, and cost, as well as other balancing factors. Based on the evaluation of meeting these criteria, Alternative 4 was selected as the recommended removal action alternative.

### Alternative 4 is preferred because it:

- Provides the best combination of actions to protect workers, the public and the environment
- Minimizes short and long term risk for workers, the public, and the environment
- Can be implemented through use of new, proven technology
- Is both technically and administratively feasible
- Supports the future remedial decisions and characterization activities at the REDOX Complex

Development of this EE/CA satisfies environmental review requirements and provides for stakeholder involvement while offering a framework for selecting the removal alternative. An Administrative Record (AR) for documentation of the removal action can be found [here](#).







**U.S. Department of Energy**  
Richland Operations Office  
P.O. Box 550, A7-75  
Richland, WA 99352

The documents are available for review at the Public Information Repositories listed below

### **HANFORD PUBLIC INFORMATION REPOSITORY LOCATIONS:**

#### **Portland**

Portland State University Library  
Government Information  
Branford Price Millar Library – LIBW  
PO Box 1151  
Portland, OR 97207-1151  
Attn: Claudia Weston (503) 725-4542  
Map: <http://bit.ly/1K7BfuK>

#### **Richland**

U.S. Department of Energy Public Reading Room  
Washington State University, Tri-Cities  
Consolidated Information Center, Room 101-L  
2770 University Drive  
Richland, WA 99352  
Attn: Janice Scarano (509) 375-7443  
Map: <http://bit.ly/1LpZKUa>

#### **Seattle**

University of Washington  
Suzzallo Library  
Box 352900  
Seattle, WA 98195-2900  
Attn: Hilary Reinert c/o ARCS  
(206) 543-5597  
Map: <http://bit.ly/1QMtUog>

#### **Spokane**

Gonzaga University  
Foley Center Library  
East 502 Boone Avenue  
Spokane, WA 99258  
Attn: John Spencer (509) 313-6110  
Map: <http://bit.ly/1Cp0mRT>

#### **Administrative Record and Public Information Repository**

2440 Stevens Center Place, Room 1101, Richland, WA  
509-376-2530

<http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0073619H>

