

Facility Deactivation & Decommissioning (D&D) D&D Program Map Addendum: Impact of American Recovery and Reinvestment Act (ARRA) on EM's D&D Program

2013 Edition



EM *Environmental Management*

safety ❖ *performance* ❖ *cleanup* ❖ *closure*

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

The American Recovery and Reinvestment Act of 2009

The American Recovery and Reinvestment Act of 2009 (ARRA) was passed by the 111th Congress and signed into law by the President on February 17, 2009.

The purpose of ARRA was to:

- Preserve and create jobs and promote economic recovery;
- Assist those most impacted by the recession;
- Provide investments needed to increase economic efficiency by spurring technological advances in science and health;
- Invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and,
- Stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases.

The Office of Environmental Management's (EM) overall goals for ARRA were to implement "shovel-ready" projects that:

- Reduce the EM legacy footprint;
- Create or maintain jobs;
- Reduce life-cycle costs for the cleanup of the Cold War environmental legacy;
- Accelerate disposition of transuranic and low-level radioactive wastes;
- Promote contracting opportunities for small businesses; and,
- Protect the environment and reduce the overall risk to the public.



The American Recovery and Reinvestment Act of 2009

Overall ARRA Accomplishments to Date.

Performance Measure	Overall ARRA Goals (Sept. 30, 2011)	Jan. 31, 2013 Plan	Accomplishments (as of Jan. 31, 2013)	
Facility Square Footage Demolished (square feet)	5,865,633	5,863,329	5,915,510 (101% of goal)	= 103 football fields 
Mill Tailings Disposed (tons)	2,199,804	2,199,804	2,631,899 (120% of goal)	= 18,277 rail cars 
Contact-Handled Transuranic Waste Processed (certification-ready) (cubic meters)	6,506	6,506	6,972 (107% of goal)	= 33,487 55-gal drums 
Contact-Handled Transuranic Waste Certified for Final Disposal (cubic meters)	3,740	3,740	3,710 (99% of goal)	= 1,273 TRUPACT IIs (17,820 55-gal drums) (424 shipments) 
Transuranic Waste Inventory Dispositioned (cubic meters)	7,722	6,811	7,666 (99% of goal)	= 36,821 55-gal drums  
Low-Level and Mixed Low-Level Waste Permanently Disposed (cubic meters)	81,943	81,943	98,215 (120% of goal)	= 471,739 55-gal drums 



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

The American Recovery and Reinvestment Act of 2009

ARRA-funded D&D projects were conducted at 12 different sites across the DOE Complex.

ARRA-funded projects had a positive impact on the EM baseline by accelerating the D&D of 299 facilities. ARRA accelerated the deactivation/stabilization/de-inventory, and complete demolition of excess facilities identified for transfer from other Program Secretarial Offices (PSO) and National Nuclear Security Agency (NNSA).

Project cost efficiencies allowed for 42 “Buy Back” (see definition below) project activities to be performed (6 of which are D&D projects).

ARRA Buy Back projects are additional project scope that were implemented based on the availability of funds from unused management reserve and contingency funds and from cost efficiencies in executing the approved projects with the original ARRA appropriation.



Data Sources and Programmatic Assumptions

Data presented in this D&D Program Map Addendum was obtained from the following sources:

- ARRA Project Closeout Packages
- ARRA Performance Measure Metrics
- ARRA Monthly Project Review Site Submittals
- Integrated Planning, Accountability, and Budgeting Summary (IPABS)
- Facility Information Management System (FIMS)
- Site field reports and internet web pages

The original scope of ARRA projects was to be completed by September 30, 2011. As of February 2013, 121 of the 134 total projects and activities (remediation, waste disposition, tank waste management, and D&D projects inclusive) are complete. The remaining projects are on schedule for completion in FY13. For the purposes of this document, these remaining projects are assumed to be complete.



EM ARRA D&D Summary

EM received \$6 Billion in funding from ARRA. Approximately \$2.7 Billion has been allocated for D&D projects across the complex. The remainder of the funding has been allocated to environmental restoration, waste disposition, and tank waste management projects.

- The majority of the D&D projects were selected because they could be completed by 2011 with the ARRA funding and provide significant footprint reduction.
- ARRA funding accelerated the EM Baseline with selected projects being completed 2 to 13 years earlier than originally planned.
- ARRA funding also provided for the accelerated D&D/stabilization/deinventory of excess facilities proposed for transfer by PSOs and NNSA.
- ARRA funds were used to demolish 299 facilities*, including the complete In Situ Decommissioning (ISD) of the P and R production reactors at the Savannah River Site (SRS) and a Spent Fuel Processing Facility (CPP-601/640) at the Idaho National Laboratory (INL). These funds were also used to initiate ISD closure of the U-Plant Separation Facility at Hanford.
- ARRA funds were also used to conduct the deactivation/clean-out of 24 facilities across the Complex. These facilities do not contribute to the overall footprint reduction as they still exist and will eventually be demolished.
- ARRA funding was responsible for the elimination of over 6 million gross square feet (GSF) of buildings across the Complex (including ISD closures and approved Buy Back scope).

* This number is based on data obtained from the approved ARRA Project Close-out Reports submitted to Headquarters. IPABS currently only accounts for 288 facilities. The ARRA Team is in the process of reconciling this number and making the appropriate corrections to IPABS.



Additional Benefits of ARRA

- Established a regulatory precedent for the ISD of production reactor facilities as a final end state.
- Significant technical experience associated with the grouting of facilities for ISD closure was gained at Hanford, INL, and SRS. (This experience is being documented by EM-13 in a lessons learned report which will be issued in FY 2013).
- Demonstrated that D&D of facilities can be accomplished safely under an aggressive schedule given sufficient funding.
- Paved the way for a streamlined contracting process which has now become institutionalized within EM.
- ARRA projects greatly contributed to EM's progress toward achieving their strategic goals and in most cases meeting these goals ahead of schedule.
- Accelerated D&D of surplus facilities 2 to 13 years earlier than originally planned, saving that many years of surveillance and maintenance (S&M) costs for these facilities.
- Accelerated D&D of surplus facilities also reduced the cost to taxpayers over the long term through the savings from normal escalation and increased D&D costs due to degradation.



ARRA Scope By Site

Site	Building Demolition			GSF (1,000's)
	# Facilities Accomplished ¹			
	Base Program	Transfer	Total	
Argonne National Lab	0	2	2	94
Brookhaven National Lab	2	1	3	11
Hanford	79	0	79	1,175
Idaho National Lab	74***	18*	92	811
Los Alamos National Lab	24	0	24	175
Nevada Nuclear Security Site	3	0	3	38
Oak Ridge Operations (ORNL, ETTP, and Y-12)	13	37**	50	3,184
Paducah	3	0	3	25
Portsmouth	13	0	13	286
Savannah River Site	30***	0	30	936
Separations Process Research Unit	0	0	0	0
West Valley	0	0	0	0
Total	241	58	299	6,736

¹ Count based on final project status; includes approved Buy Back scope. This count may differ from the count published in previous revisions of the D&D Program Map due to revisions to POPs to reflect actual accomplishments.

* Includes demolition of TRA-730 A/B/C/D that was completed as part of the EM accepted voluntary consent order (VCO) work, but does not change the Transfer Facility roll-up.

** ARRA funding was also used to demolish the Filter House attached to B-9206 at Y-12; the Filter House represents negligible GSF and therefore the bulk of B-9206 remains for transfer under IFDP.

*** Includes ISD of Fuel Processing Facility (CPP-601 & CPP-640) at INL and P-Area (105-P) and R-Area (105-R) production reactors at SRS. ISD is the permanent entombment of a facility, containing residual radiological contamination, in its existing location.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

ARRA Scope By Site (cont.)

Site	Facility Clean-out / Deactivation ¹		
	# Facilities Accomplished ²		
	Base Program	Transfer	Total
Argonne National Lab	0	5	5
Brookhaven National Lab	2	0	2
Hanford	2	0	2
Idaho National Lab	1	2	3
Los Alamos National Lab	0	0	0
Nevada Nuclear Security Site	0	0	0
Oak Ridge Operations (ORNL, ETTP, and Y-12)	1	6	7
Paducah	4	0	4
Portsmouth	0	0	0
Savannah River Site	0	0	0
Separations Process Research Unit	0	0	0
West Valley	1	0	1
Total	11	13	24

¹ Facilities that underwent deactivation and/or clean-out with ARRA funding are counted separately since these facilities still remain for eventual demolition; and as such, they do not contribute toward the overall footprint reduction.

² Count based on final project status; includes approved Buy Back scope. This count may differ from the count published in previous revisions of the D&D Program Map due to revisions to POPs to reflect actual accomplishments.



Impact of ARRA on Excess Facilities Planned for Transfer to EM

Site	PSO	# Facilities to be Transferred			Remaining Facilities GSF
		Originally Accepted by EM	Completed by ARRA	Remaining After ARRA	
Argonne National Lab	SC	9	2	7	1,275,200
Brookhaven National Lab	SC	8	1*	6*	95,000
Idaho National Lab	NE	36	18**	20**	78,600
Los Alamos National Lab	NNSA	1	0	1	56,300
Lawrence Livermore National Lab	NNSA	4	0	4	149,000
Oak Ridge National Lab	SC	131	32	99	621,000
Oak Ridge National Lab	NE	1	0	1	25,000
Nevada Nuclear Security Site	NNSA	6	0	6	18,700
Stanford Linear Accelerator Center	SC	1	0	1	100,000
Savannah River Site	NNSA	2	0	2	72,000
Y-12 National Security Complex	NE	1	0	1	256,000
Y-12 National Security Complex	SC	16	3	13	884,000
Y-12 National Security Complex	NNSA	78	2***	77***	1,926,000
Total		294	58	238	5,556,800

* Remediation of Brookhaven Ave (a Transfer Facility line item) was conducted as part of the A/B Waste Line removal ARRA project; although this was counted as 1 ARRA project, it reduced the Transfer Facility count by 2.

** Removal of waste lines under TRA-632 was conducted as part of voluntary consent order (VCO) work, but it does not change the transfer facility roll-up. In addition, TRA-730 A/B/C/D were demolished as part of the EM-accepted VCO work and counted as 1 facility in ARRA; but it does not change the transfer facility roll-up.

*** ARRA funding was used to demolish the Filter House attached to B-9206 at Y-12; the Filter House represents negligible GSF and therefore the bulk of B-9206 remains for transfer under IFDP.

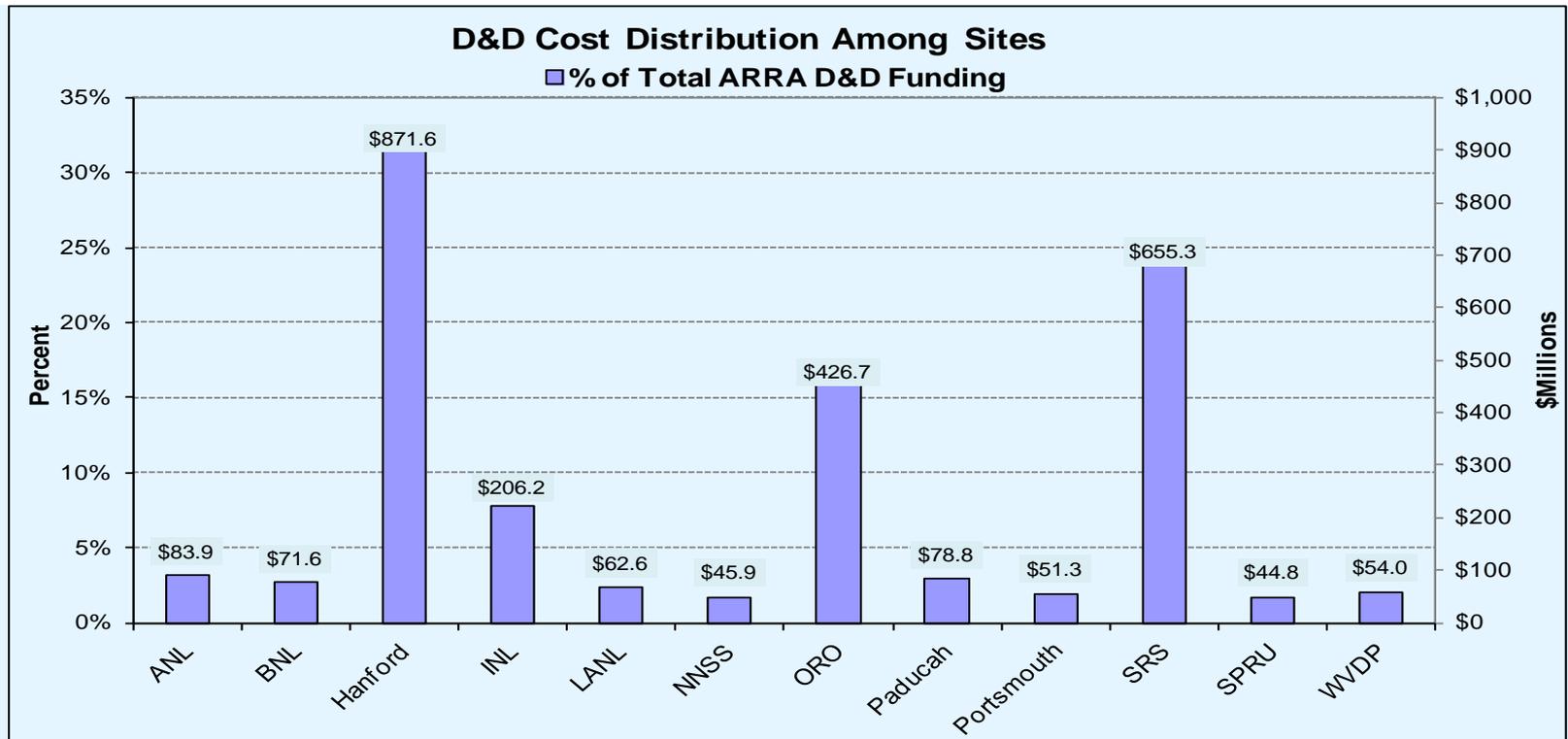


EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Taking a Look Inside the Numbers



- Hanford, SRS, and ORO collectively represent 74% of the total D&D ARRA funding and 79% of the total GSF removed (and 53% of the facility count).
- INL, with less than 10% of the Total D&D ARRA funding, demolished the highest number of facilities (see charts on next page); representing 12% of the total GSF removed.
- The overall average D&D cost per GSF was about \$397; the average was \$690/GSF with ORO removed to show the effect of K-33, a single, large, barely contaminated, 2.8M GSF facility (see explanation on the next page).
- All of the D&D ARRA funding at SPRU and WVDP was used for facility deactivation/clean-out; no facilities were demolished at these sites with the ARRA funds.



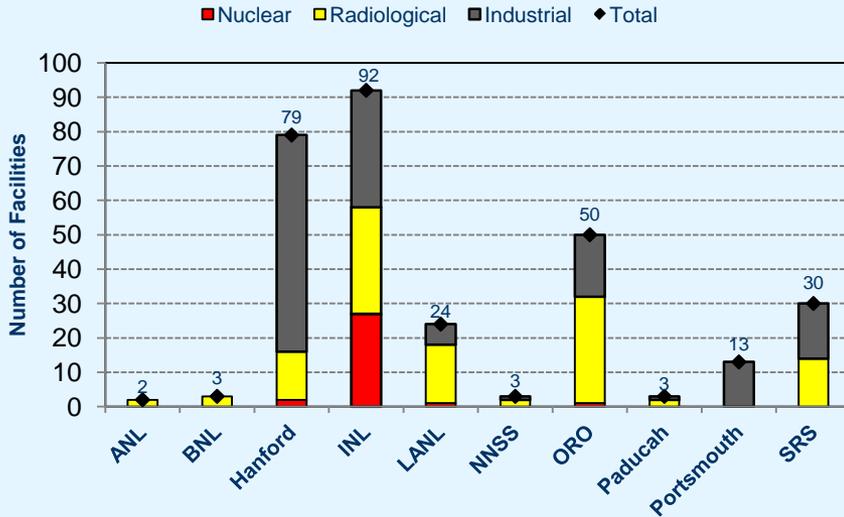
EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

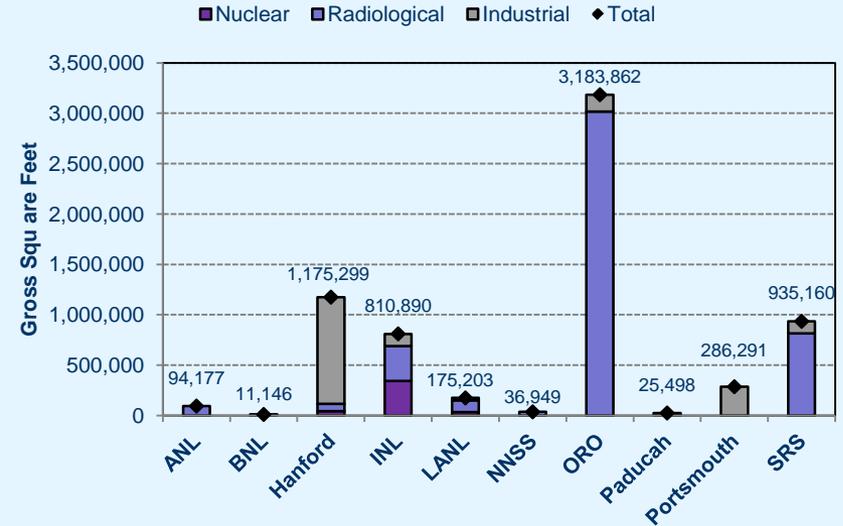
Office of Site Restoration, EM-10
 Office of D&D and Facility Engineering, EM-13

Taking a Look Inside the Numbers (cont.)

Number of Facilities Removed by Site



Number of Facility Gross Square Feet Removed by Site



- The facility GSF removed at ORO is dominated by the demolition of the K-33 structure, a former Gaseous Diffusion Process building with over 2.8M GSF (ORO GSF removed = 352,145 ft² without K-33 included). Although categorized as radiological, K-33 was demolished as a borderline radiological/industrial facility because all of the process equipment had been previously removed.
- Hanford demolished 79 total facilities representing over 1,175,000 GSF; ORO demolished 50 facilities representing 352,145 GSF (not counting K-33) and INL's 92 representing 810,890 GSF. The majority of the Hanford facilities were "Industrial" whereas the ORO facilities were predominantly "Radiological," and INL's were distributed among "Nuclear," "Radiological," and "Industrial."
- Hanford had an average of approximately 15,000 GSF/facility, while ORO had an average of approximately 7,000 GSF/facility (after removing the distorting effect of K-33). INL with 31% of the facilities averaged 9,000 GSF/facility.
- SRS GSF removed is dominated by the ISD closure of the P-Area and R-Area production reactors which represent 385,000 GSF each.
- Collectively, the majority of facilities removed were "Industrial" facilities; although the majority of the GSF removed is associated with "Radiological" facilities (excluding K-33, the majority of the GSF is essentially split between "Radiological" and "Industrial" facilities).



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

DOE Site Fact Sheets Presenting ARRA D&D Projects

Each Fact Sheet lists the:

- Total Life Cycle Cost (LCC) for the D&D scope initiated at the site. In some cases the total LCC for the D&D scope (as obtained from IPABS) is greater than the site ARRA appropriation; this is in part due to sites transferring base program money to the ARRA PBS to supplement the ARRA funding. IPABS does not differentiate the source of the LCC.
- D&D LCC percentage of total site ARRA appropriation.
- Key Performance Parameters (KPPs) taken directly from IPABS; the KPPs were developed based on the ARRA scope presented in the Project Operating Plans (POPs) submitted by the sites in order to receive ARRA funds. In some cases actual performance exceeded some of these KPPs and the revisions have not yet been incorporated into IPABS (and thus are not reflected here in order to retain the “pedagree” of IPABS data).
- Number of facilities (and corresponding GSF) demolished by hazard category; other D&D accomplishments (i.e., facility clean-out and/or deactivation); and approved Buy Back scope.
- Listing of individual facilities included in ARRA scope defined above (as taken directly from the database created to track this information).



Demolition activities at Building K-33 at Oak Ridge.



Demolition of the Reactor Maintenance, Assembly, and Disassembly (R-MAD) building at the Nevada Test Site.



Demolition of an ancillary facility near the U Plant processing canyon at the Hanford site.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Fact Sheet Roll-up of ARRA Accomplishments

Site	Facilities Demolished*		
	Hazard Category	Number	GSF
Argonne National Lab	Nuclear	--	--
	Radiological	2	94,177
	Industrial	--	--
	Site Total	2	94,177
Brookhaven National Lab	Nuclear	--	--
	Radiological	3	11,146
	Industrial	--	--
	Site Total	3	11,146
Hanford	Nuclear	2	44,536
	Radiological	14	70,723
	Industrial	63	1,060,040
	Site Total	79	1,175,299
Idaho National Lab	Nuclear	27	343,626
	Radiological	31	347,525
	Industrial	34	119,739
	Site Total	92	810,890
Los Alamos National Lab	Nuclear	1	34,272
	Radiological	17	116,433
	Industrial	6	24,498
	Site Total	24	175,203
Nevada Nuclear Security Site	Nuclear	--	--
	Radiological	2	36,949
	Industrial	1	1,076
	Site Total	3	38,025

* Includes ISD closures and approved Buy Back scope.

Fact Sheet Roll-up of ARRA Accomplishments (cont.)

Site	Facilities Demolished*		
	Hazard Category	Number	GSF
Oak Ridge Operations	Nuclear	1	Not reported
	Radiological	31	3,015,625
	Industrial	18	168,237
	Site Total	50	3,183,862
Paducah	Nuclear	--	--
	Radiological	2	25,498
	Industrial	1	Not Reported
	Site Total	3	25,498
Portsmouth	Nuclear	--	--
	Radiological	--	--
	Industrial	13	286,291
	Site Total	13	286,291
Savannah River Site	Nuclear	--	--
	Radiological	14	815,678
	Industrial	16	119,482
	Site Total	30	935,160
Separations Process Research Unit	Nuclear	--	--
	Radiological	--	--
	Industrial	--	--
	Site Total	--	--
West Valley Demonstration Project	Nuclear	--	--
	Radiological	--	--
	Industrial	--	--
	Site Total	--	--
Total	Nuclear	31	422,434
	Radiological	116	4,533,754
	Industrial	152	1,779,363
	Total	299	6,735,551

* Includes ISD closures and approved Buy Back scope.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Argonne National Laboratory Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$83,923,000

Percentage of Total Site ARRA Appropriation: 90%

Note: While all of ANL ARRA funding was allocated to D&D PBSs, some of the scope included TRU disposition.

ARRA D&D Scope

Sub-PBS	D&D Scope Performance Parameters
CH-ANLE-0040.NEW.R1.1	Demolition of a 41,434 GSF building (Bldg. 310); and offsite disposal of resulting wastes
CH-ANLE-0040.NEW.R1.2	Demolition of a 52,743 GSF building (Bldg. 330); and offsite disposal of resulting wastes
CH-ANLE-0040.NEW.R1.3	Retrieval of fuel specimen materials from the Alpha Gamma Hot Cell Facility (AGHCF); preparation and loading of up to 15 casks of material for shipment off-site
CH-ANLE-0040.NEW.R1.4	Removal of TRU materials from Buildings 205K Wing, 212, 306, and 200 M Wing

ARRA Accomplishments

Facilities Demolished

Hazard Category	Number	GSF
Nuclear	--	--
Radiological	2	94,177
Industrial	--	--

ARRA Accomplishments

Facility Clean-Out and/or Deactivation Activities

Building 200 M-Wing Excess Nuclear Material Clean-out
Alpha Gamma Hot Cell Facility Clean-out
Building 205 K Wing Hot Cell Clean-out
Building 306 Waste & Material Clean-out

ARRA Buy Back D&D Scope

Phase II Alpha Gamma Hot Cell Facility Clean-out
Building 331 Excess Material & Problem Waste Clean-out and Disposition
Building 205 Glovebox Disposal from Rooms G-109 and G-133
Characterization & Cost Estimate for up to 13 IPNS Buildings



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Argonne Facility Fact Sheet (cont.)

ARRA D&D Scope for Argonne						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
310	Inspector General, WM Reactor Eng	SC	Radiological	41,434	CH-ANLE-0040.NEW.R1.1	Complete Demolition of facility.
330	CP-5 Reactor Building	SC	Radiological	52,743	CH-ANLE-0040.NEW.R1.2	Complete Demolition of facility.
212	Alpha Gamma Hot Cell Facility Clean-out	SC	Nuclear/Cat 2	N/A	CH-ANLE-0040.NEW.R1.3	Facility Clean-out to support de-inventorying of nuclear materials/TRU waste disposition.
200	Building 200 M-Wing Excess Nuclear Material Clean-out	SC	Nuclear/Cat 2	N/A	CH-ANLE-0040.NEW.R1.4	Facility Clean-out to support de-inventorying of nuclear materials/TRU waste disposition.
205	K Wing Hot Cell Clean-out	SC	Nuclear/Cat 3	N/A	CH-ANLE-0040.NEW.R1.4	Facility Clean-out to support de-inventorying of nuclear materials/TRU waste disposition.
306	Waste Management Facility Building 306 Waste & Material Clean-out	SC	Nuclear/Cat 3	N/A	CH-ANLE-0040.NEW.R1.4	Facility Clean-out to support de-inventorying of nuclear materials/TRU waste disposition.
212	Alpha Gamma Hot Cell Facility Clean-out Phase II	SC	Nuclear/Cat 2	N/A	CH-ANLE-0040.NEW.R1.5	Buy Back Project: Facility Clean-out. Remote size reduction & disposal of large pieces of in-cell equipment and non-intrusive facility decontamination.
331	Bldg. 331 Excess Material & Problem Waste Disposal	SC	Nuclear/Cat 2	N/A	CH-ANLE-0040.NEW.R1.5	Buy Back Project: Facility Clean-out. Characterization, treatment, processing, packaging, & disposition of surplus nuclear materials and CH-TRU currently stored in Bldg. 331.
205	Bldg. 205 Glovebox Disposal	SC	Nuclear/Cat 3	N/A	CH-ANLE-0040.NEW.R1.5	Buy Back Project: Facility Clean-out. Disposition of two gloveboxes & associated radioactive material from Rooms G-109 and G-133.
Multiple	IPNS	SC	--	--	CH-ANLE-0040.NEW.R1.5	Buy Back Project: Other. Characterization & Cost Estimate for up to 13 IPNS Buildings (361, 375, 391, 360, 367, 385, 389B, 390, 399, 361A, 375A, 391A).



Argonne Facility Fact Sheet (cont.)



Workers at Argonne remove drain piping during the D&D of Building 310, the former Reactor Engineering Building.



Before: Chicago Pile-5 Reactor Facility.



After: Chicago Pile-5 Reactor Facility.



Before: Experimental Waste Processing, Storage and Shipping Building (Bldg. 310).



After: Experimental Waste Processing, Storage and Shipping Building.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Brookhaven National Laboratory Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$71,626,000

Percentage of Total Site ARRA Appropriation: 100%

ARRA D&D Scope	
Sub-PBS	D&D Scope Performance Parameters
BRNL-0040.R1	Removal and disposal of the graphite pile and bioshield at Brookhaven Graphite Research Reactor (Bldg. 701), Installation of the Engineered Cap and Installation of monitoring wells
BRNL-0041.R1	Isolation/Deactivation of the High Flux Beam Reactor (Bldg. 750). Complete demolition and removal of 2 fan houses (Bldg. 704 and 802), below-ground duct/structures and underground utilities.
BRNL-0041.New.R1	Complete removal of A/B Waste Lines

ARRA Accomplishments		
Facilities Demolished		
Hazard Category	Number	GSF
Nuclear	--	--
Radiological	3	11,146
Industrial	--	--

ARRA Accomplishments
Facility Clean-Out and/or Deactivation Activities
Isolation/Deactivation of HFBR Reactor Building (Building 750)
Remove Graphite Blocks/Demo Prep of BGRR (Building 701)

ARRA Buy Back D&D Scope
N/A



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Brookhaven Facility Fact Sheet (cont.)

ARRA D&D Scope for Brookhaven

Facility ID	Facility Name/Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
701	BGRR	EM	Radiological	38,641	BRNL-0040.R1	Demolition preparation of Reactor Building, including removal of approximately 60,000 graphite blocks: 4'x4' width varying length.
704	HFBR Fan House	EM	Radiological	9,864	BRNL-0041.R1	Complete Demolition of facility.
802	HFBR Fan House	EM	Radiological	1,282	BRNL-0041.R1	Complete Demolition of facility.
750	HFBR Reactor Bldg	EM	Nuclear/Cat 1	117,790	BRNL-0041.R1	Facility Isolation/Deactivation
N/A	Removal of A/B Waste Lines to Building 810	SC	N/A	N/A	BNL-0041.NEW.R1	Remediation of Brookhaven Ave (a Transfer Facility Line Item) was conducted as part of the A/B Waste Line removal scope funded by ARRA. The original remediation scope was completed; however additional contamination has been discovered that is outside of this scope.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Brookhaven Facility Fact Sheet (cont.)



Recovery Act workers demolish the Building 802 Fan House.



Recovery Act workers excavate the area outside the Brookhaven Graphite Research Reactor to prepare for the installation of an impermeable cap.



Equipment operators work to dismantle the Brookhaven Graphite Research Reactor's bioshield.



The Lab's new excavator enters the Brookhaven Graphite Research Reactor Bioshield through an opening in its west wall.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Hanford – Richland Office Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$871,582,000
 Percentage of Total Site ARRA Appropriation: 53%

ARRA D&D Scope	
Sub-PBS	D&D Scope Performance Parameters
RL-0011.R1	Building 234-5Z process and laboratory areas ready for demolition and ancillary buildings ready for demolition (part of the Plutonium Finishing Plant [PFP])
RL-0040.R1.1	U Plant (Bldg. 221-U) canyon ready for demolition; complete deactivation, decontamination, decommissioning, and demolition of 16 facilities
RL-0040.R1.2	Complete deactivation, decontamination, decommissioning, and demolishing (D4) of 18 facilities
RL-0041.R1.1	Complete D4 of 15 buildings

ARRA Accomplishments		
Facilities Demolished		
Hazard Category	Number	GSF
Nuclear	2	44,536
Radiological	14	70,723
Industrial	63	1,060,040

ARRA Accomplishments
Facility Clean-Out and/or Deactivation Activities
Deactivation & Demo Prep of 1 Nuclear Facility at PFP (234-5Z)
Preparation of U Canyon for In Situ Decommissioning Closure

Note: Actual performance exceeded scope expectations originally defined in the POP. Revision of the official KPPs has not yet been incorporated into IPABS.

ARRA Buy Back D&D Scope
N/A



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
 Office of D&D and Facility Engineering, EM-13

Hanford – Richland Office Fact Sheet (cont.)

ARRA D&D Scope for Richland						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
234-5Z	PPF (234-5Z)	EM	Nuclear/Cat 2	216,902	RL-0011.R1	Deactivation & Demolition prep.
211U	Cold Chemical Makeup Tank Farm	EM	Radiological	1,291	RL-0040.R1.1	Complete Demolition of facility.
211UA	Cold Chemical Makeup Tank Farm Addition	EM	Radiological	5,773	RL-0040.R1.1	Complete Demolition of facility.
203UX	Gas Storage Facility	EM	Radiological	733	RL-0040.R1.1	Complete Demolition of facility.
224U	UO3 Plant Concentration and Load-out Building	EM	Nuclear/Cat 3	35,463	RL-0040.R1.1	Complete Demolition of facility.
224UA	UO3 Calcination and Load-out Facility	EM	Radiological	9,934	RL-0040.R1.1	Complete Demolition of facility.
2701M	Office Building	EM	Industrial	300	RL-0040.R1.1	Complete Demolition of facility.
272E	Fabrication, Mockup Shop Building	EM	Industrial	20,735	RL-0040.R1.1	Complete Demolition of facility.
2734EA	Gas Cylinder Storage Building	EM	Industrial	168	RL-0040.R1.1	Complete Demolition of facility.
275E	Carpenter Shop Building	EM	Industrial	5,871	RL-0040.R1.1	Complete Demolition of facility.
284E	Power House & Steam Plant	EM	Industrial	61,975	RL-0040.R1.1	Complete Demolition of facility.
MO104	Mobile Office at 2719E	EM	Industrial	1,344	RL-0040.R1.1	Complete Demolition of facility.
MO405	Mobile Office	EM	Industrial	13,860	RL-0040.R1.1	Complete Demolition of facility.
MO840	Mobile Office - Receiving & Distribution	EM	Industrial	720	RL-0040.R1.1	Complete Demolition of facility.
284W	Power House & Steam Plant	EM	Industrial	53,302	RL-0040.R1.1	Complete Demolition of facility.
284WB	Package Boiler Plant (200W)	EM	Industrial	2,306	RL-0040.R1.1	Complete Demolition of facility.
209E	Critical Mass Laboratory	EM	Nuclear/Cat 3	9,073	RL-0040.R1.1	Complete Demolition of facility.
209EA	90 Day Storage Pad	EM	Industrial	5,114	RL-0040.R1.1	Complete Demolition of facility.
2701EC	Guard Station for 209E	EM	Industrial	509	RL-0040.R1.1	Complete Demolition of facility.
2710W	Coal Handlers Shelter	EM	Industrial	128	RL-0040.R1.1	Complete Demolition of facility.
2716E	Power Maintenance Storage Bldg.	EM	Industrial	818	RL-0040.R1.1	Complete Demolition of facility.
2718E	Critical Mass Storage Bldg.	EM	Radiological	1,743	RL-0040.R1.1	Complete Demolition of facility.
2722W	Welding Laboratory	EM	N/A	1,480	RL-0040.R1.1	Complete Demolition of facility.
2902E	Water Storage Tanks	EM	Industrial	926	RL-0040.R1.1	Complete Demolition of facility.
2902W	Water Storage Tanks	EM	Industrial	926	RL-0040.R1.1	Complete Demolition of facility. 100,000 gal tank; included removal of associated water lines.
X8	Motor Car Shed	EM	Industrial	57	RL-0040.R1.1	Complete Demolition of facility.
221-U	U-Plant Canyon	EM	Nuclear/Cat 3	180,464	RL-0040.R1.1	In Situ Decommissioning prep; placement of equipment into process cells, grouting of process cells and galleries.
212N	Storage Building	EM	Radiological	9,707	RL-0040.R1.2	Complete Demolition of facility.
212P	Electrical Storage & Transformer Shop	EM	Radiological	9,707	RL-0040.R1.2	Complete Demolition of facility.
212R	Storage Building	EM	Radiological	9,707	RL-0040.R1.2	Complete Demolition of facility.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Hanford – Richland Office Fact Sheet (cont.)

ARRA D&D Scope for Richland						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
614	Monitor Station	EM	Industrial	87	RL-0040.R1.2	Complete Demolition of facility.
646	Radioecology Field Laboratory	EM	Industrial	800	RL-0040.R1.2	Complete Demolition of facility.
6652G	ALE Field Storage Building	EM	Industrial	6,792	RL-0040.R1.2	Complete Demolition of facility.
6652H	ALE Laboratory 1	EM	Industrial	2,819	RL-0040.R1.2	Complete Demolition of facility.
6652I	ALE Headquarters	EM	Industrial	5,101	RL-0040.R1.2	Complete Demolition of facility.
6652J	ALE Laboratory II	EM	Industrial	7,873	RL-0040.R1.2	Complete Demolition of facility.
6652M	Fallout Laboratory	EM	Industrial	697	RL-0040.R1.2	Complete Demolition of facility.
6652R	Acid Storage Shed	EM	Industrial	42	RL-0040.R1.2	Complete Demolition of facility.
6652C	Space Science Laboratory	EM	Industrial	6,435	RL-0040.R1.2	Complete Demolition of facility.
6652CSHED	Storage Building	EM	Industrial	231	RL-0040.R1.2	Complete Demolition of facility.
6652D	Pump House	EM	Industrial	103	RL-0040.R1.2	Complete Demolition of facility.
6652T	Fire Protection Lower Pump House	EM	Industrial	179	RL-0040.R1.2	Complete Demolition of facility.
6652U	Rattlesnake Mountain Upper Pump House	EM	Industrial	178	RL-0040.R1.2	Complete Demolition of facility.
623A	Plant Radio Relay Bldg (Top of Rattlesnake Mtn.)	EM	Industrial	491	RL-0040.R1.2	Complete Demolition of facility.
T520-6	Navy MARS Radio Station	EM	Industrial	623	RL-0040.R1.2	Complete Demolition of facility.
6630	Hodges Well & Pumphouse	EM	Industrial	180	RL-0040.R1.2	Complete Demolition of facility.
6631	Radio Telescope Pedestal	EM	Industrial	46	RL-0040.R1.2	Complete Demolition of facility.
6632	Verizon Telephone Enclosure	EM	Industrial	48	RL-0040.R1.2	Complete Demolition of facility.
6633	Franklin County Communications Bldg.	EM	Industrial	107	RL-0040.R1.2	Complete Demolition of facility.
6634	ENW Tower and Building	EM	Industrial	150	RL-0040.R1.2	Complete Demolition of facility.
6635	Crown Castle/Cingular Tower & Building	EM	Industrial	282	RL-0040.R1.2	Complete Demolition of facility.
6636	Columbia Communication Tower & Bldg.	EM	Industrial	249	RL-0040.R1.2	Complete Demolition of facility.
6637	Tri City Amateur Radio Tower & Bldg.	EM	Industrial	73	RL-0040.R1.2	Complete Demolition of facility.
6652S	Sentry Shed	EM	Industrial	39	RL-0040.R1.2	Complete Demolition of facility.
183KW	Chlorine Vault Slab	EM	Industrial	3,576	RL-0041.R1.1	Complete Demolition of facility.
118KE	Horizontal Control Rod Storage	EM	Industrial	1,061	RL-0041.R1.1	Complete Demolition of facility.
110KE	Gas Storage	EM	Radiological	84	RL-0041.R1.1	Complete Demolition of facility.
MO048	Construction Lunch Trailer	EM	Industrial	1,848	RL-0041.R1.1	Complete Demolition of facility.
MO969	Ops/HPT Change Trailer	EM	Industrial	3,360	RL-0041.R1.1	Complete Demolition of facility.
183.1KW	Head House	EM	Industrial	16,903	RL-0041.R1.1	Complete Demolition of facility.
117KE	Exhaust Air Filter	EM	Radiological	3,546	RL-0041.R1.1	Complete Demolition of facility.
115KE	Gas Recirculation	EM	Radiological	8,401	RL-0041.R1.1	Complete Demolition of facility.
116KE	Reactor Exhaust Stack	EM	Radiological	1,464	RL-0041.R1.1	Complete Demolition of facility.
183.7KW	Sedimentation Basin Complex	EM	Radiological	7,000	RL-0041.R1.1	Complete Demolition of facility.

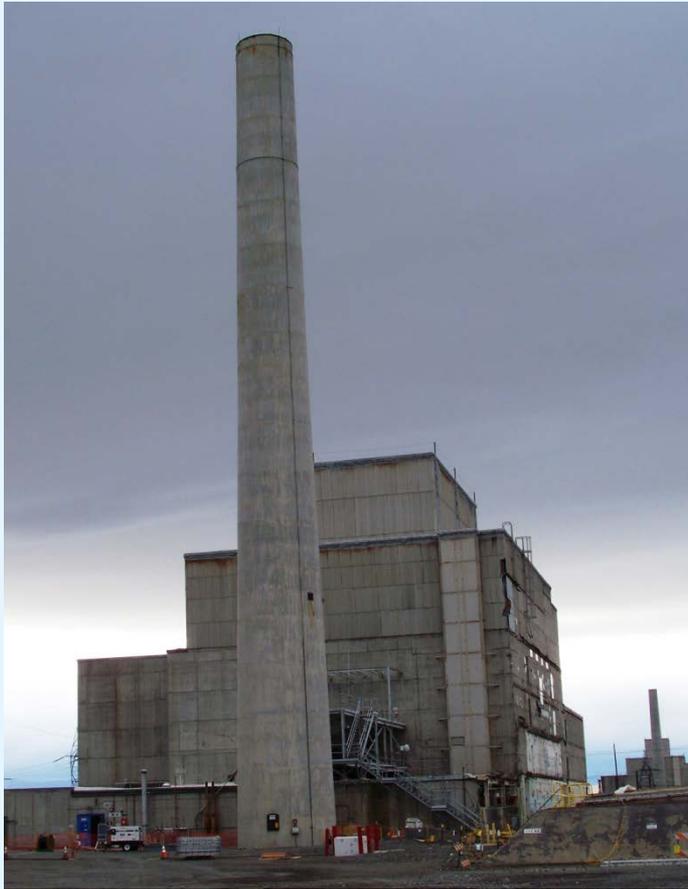


Hanford – Richland Office Fact Sheet (cont.)

ARRA D&D Scope for Richland						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
183.2KW	Sedimentation Basin Complex	EM	Industrial	292,344	RL-0041.R1.1	Complete Demolition of facility.
183.3KW	Sedimentation Basin Complex	EM	Industrial	90,958	RL-0041.R1.1	Complete Demolition of facility.
183.1KE	Head House	EM	Industrial	16,903	RL-0041.R1.1	Complete Demolition of facility.
183.4KW	Clearwell	EM	Industrial	119,299	RL-0041.R1.1	Complete Demolition of facility.
183.4KE	Clearwell	EM	Industrial	119,299	RL-0041.R1.1	Complete Demolition of facility.
190KE	Main Pump House	EM	Industrial	51,688	RL-0041.R1.1	Complete Demolition of facility.
1605KE	Guard House	EM	Industrial	184	RL-0041.R1.1	Complete Demolition of facility.
190KW	Main Pump House	EM	Industrial	51,688	RL-0041.R1.1	Complete Demolition of facility.
181KE	River Pump House	EM	Industrial	4,736	RL-0041.R1.1	Complete Demolition of facility.
110KW	Gas Storage Facility	EM	Radiological	1,634	RL-0041.R1.1	Complete Demolition of facility.
1605KW	Guard Tower – West	EM	Industrial	229	RL-0041.R1.1	Complete Demolition of facility.
1717AKE	Electrical Shed	EM	Industrial	208	RL-0041.R1.1	Complete Demolition of facility.
1717K	Maintenance Shop	EM	Industrial	10,675	RL-0041.R1.1	Complete Demolition of facility.
1720K	Offices and Telephone Exchange	EM	Industrial	6,174	RL-0041.R1.1	Complete Demolition of facility.
181KW	River Pump House	EM	Industrial	5,130	RL-0041.R1.1	Complete Demolition of facility.
183.3KE	Basin/Filters	EM	Industrial	58,414	RL-0041.R1.1	Complete Demolition of facility.
185K	Water Treatment Plant	EM	Industrial	1,200	RL-0041.R1.1	Complete Demolition of facility.



Hanford – Richland Office Fact Sheet (cont.)



Left and Above: Workers safely demolished the K-Reactor's 175-foot-high exhaust stack (Bldg. 117-KE).

Right: Workers demolish an ancillary facility near the U Plant processing canyon.

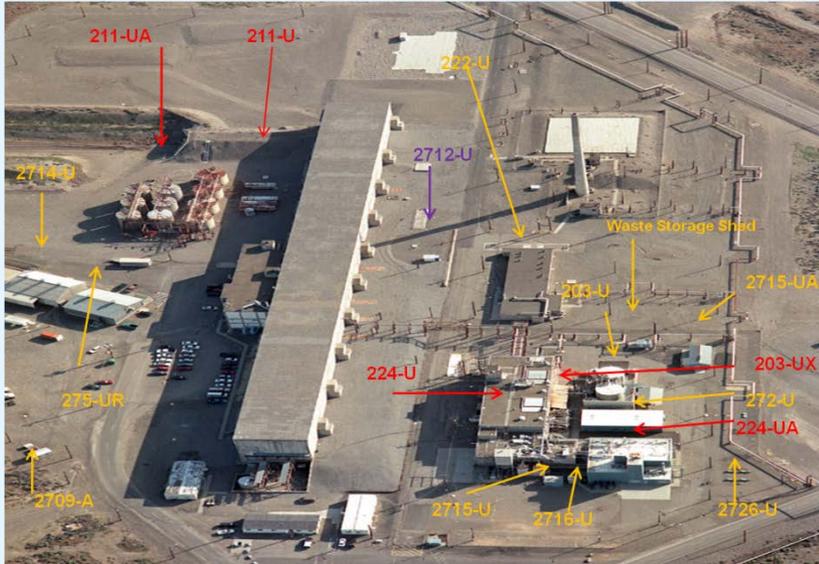


EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Hanford – Richland Office Fact Sheet (cont.)



U Plant (Bldg. 221-U) before ISD preparation (circa 2001).



U Plant after ISD preparation.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Idaho National Laboratory Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$206,200,000

Percentage of Total Site ARRA Appropriation: 44%

ARRA D&D Scope	
Sub-PBS	D&D Scope Performance Parameters
ID-0040B.R1.1	Complete D&D of 39 facilities
ID-0040B.R1.2	Complete D&D of 32 facilities
ID-0040B.NEW.R1.3	Complete D&D of 19 facilities

ARRA Accomplishments		
Facilities Demolished		
Hazard Category	Number	GSF
Nuclear	27	343,626
Radiological	30	346,949
Industrial	33	118,904

ARRA Accomplishments
Facility Clean-Out and/or Deactivation Activities
Demolition preparation of EBR-II Reactor Building (Bldg. 725), including passivation of residual sodium and grouting of reactor vessel.

Note: Actual performance exceeded scope expectations originally defined in the POP. Revision of the official KPPs has not yet been incorporated into IPABS.

ARRA Buy Back D&D Scope
Demolish 1 Radiological Structure (4 Hot Cell Tanks) (576 GSF)*
Demolish 1 Industrial Facility (835 GSF)

* Demolition of TRA-730 A/B/C/D was completed as part of the EM accepted VCO work, but does not count toward the Transfer Facility roll-up.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Idaho National Laboratory Fact Sheet (cont.)

ARRA D&D Scope for Idaho

Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
CPP-1607	Auto Foam Fire Protection Bldg.	EM	Industrial	192	ID-0040B.R1.1	Complete Demolition of facility.
CPP-1635	Haz Chemical Storage Facility	EM	Radiological	2,507	ID-0040B.R1.1	Complete Demolition of facility.
CPP-1649	Instr. Storage & Maint. Facility	EM	Industrial	2,476	ID-0040B.R1.1	Complete Demolition of facility.
CPP-1653	Subcontractor's Warehouse	EM	Industrial	10,773	ID-0040B.R1.1	Complete Demolition of facility.
CPP-1656	Warehouse	EM	Industrial	6,000	ID-0040B.R1.1	Complete Demolition of facility.
CPP-619	Waste Storage Control House	EM	Nuclear/Cat 2	416	ID-0040B.R1.1	Complete Demolition of facility.
CPP-622	Tank Farm Instrument House	EM	Nuclear/Cat 2	67	ID-0040B.R1.1	Complete Demolition of facility.
CPP-634	Waste Station WM-185	EM	Nuclear/Cat 2	223	ID-0040B.R1.1	Complete Demolition of facility.
CPP-638	Waste Station WM-180	EM	Industrial	87	ID-0040B.R1.1	Complete Demolition of facility.
CPP-654	Rec. Warehouse/Offices	EM	Industrial	19,301	ID-0040B.R1.1	Complete Demolition of facility.
CPP-712	Instrument House	EM	Nuclear/Cat 2	161	ID-0040B.R1.1	Complete Demolition of facility.
CPP-717A	Waste Storage Tank	EM	Radiological	1,250	ID-0040B.R1.1	Complete Demolition of facility.
CPP-717B	Waste Storage Tank	EM	Radiological	1,250	ID-0040B.R1.1	Complete Demolition of facility.
CPP-717C	Waste Storage Tank	EM	Radiological	1,250	ID-0040B.R1.1	Complete Demolition of facility.
CPP-717D	Waste Storage Tank	EM	Radiological	1,250	ID-0040B.R1.1	Complete Demolition of facility.
CPP-721	Condenser Pit	EM	Radiological	106	ID-0040B.R1.1	Complete Demolition of facility.
CPP-722	Condenser Pit	EM	Radiological	106	ID-0040B.R1.1	Complete Demolition of facility.
CPP-723	Relief Valve Pit/VES-WM-181	EM	Industrial	28	ID-0040B.R1.1	Complete Demolition of facility.
CPP-727	FAST HF Acid Storage/VES-CS-169	EM	Industrial	875	ID-0040B.R1.1	Complete Demolition of facility.
CPP-737	Condenser Pit/VES-WM-300	EM	Radiological	120	ID-0040B.R1.1	Complete Demolition of facility.
CPP-738	Cooling Water Pit/HE-WM-301	EM	Industrial	120	ID-0040B.R1.1	Complete Demolition of facility.
CPP-739	Condenser Pit/HE-WM-302	EM	Radiological	104	ID-0040B.R1.1	Complete Demolition of facility.
CPP-780	Waste Tank Vault/VES-WM-180	EM	Nuclear/Cat 2	3,600	ID-0040B.R1.1	Complete Demolition of facility.
CPP-781	Waste Tank Vault/VES-WM-181	EM	Nuclear/Cat 2	3,600	ID-0040B.R1.1	Complete Demolition of facility.
CPP-782	Waste Tank Vault/VES-WM-182	EM	Nuclear/Cat 2	3,600	ID-0040B.R1.1	Complete Demolition of facility.
CPP-783	Waste Tank Vault	EM	Radiological	3,600	ID-0040B.R1.1	Complete Demolition of facility.
CPP-784	Waste Tank Vault	EM	Radiological	3,600	ID-0040B.R1.1	Complete Demolition of facility.
CPP-785	Waste Tank Vault	EM	Radiological	3,600	ID-0040B.R1.1	Complete Demolition of facility.
CPP-786	Waste Tank Vault	EM	Radiological	3,600	ID-0040B.R1.1	Complete Demolition of facility.
TRA-603	Material Test Reactor (MTR) Building	EM	Nuclear/Cat 2	44,518	ID-0040B.R1.1	Complete Demolition of facility.
TRA-604	MTR Building Wing A	EM	Radiological	41,723	ID-0040B.R1.1	Complete Demolition of facility.
TRA-610	MTR Fan House	EM	Radiological	3,217	ID-0040B.R1.1	Complete Demolition of facility.
TRA-661	Reactor Wing South Extension	EM	Radiological	8,459	ID-0040B.R1.1	Complete Demolition of facility.
WMF-648	ILTSF Trailer	EM	Industrial	160	ID-0040B.R1.1	Complete Demolition of facility.
WMF-671	Weather Enclosure Structure (GEM)	EM	Nuclear/Cat 2	8,783	ID-0040B.R1.1	Complete Demolition of facility.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

3/13/2013 28

Idaho National Laboratory Fact Sheet (cont.)

ARRA D&D Scope for Idaho						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
WMF-711	ASB-II Foundation, Floor & Airlock	EM	Industrial	22,500	ID-0040B.R1.1	Complete Demolition of facility.
WMF-714	ILTSF#1	EM	Nuclear/Cat 2	25,000	ID-0040B.R1.1	Complete Demolition of facility.
WMF-720	ILTSF#2	EM	Nuclear/Cat 2	25,000	ID-0040B.R1.1	Complete Demolition of facility.
WMF-736	Cold Test Pit	EM	Industrial	5,000	ID-0040B.R1.1	Complete Demolition of facility.
CPP-694	NWCF Organic Solvent Disposal	EM	Industrial	835	ID-0040B.R1.1	Buy Back Project: Complete Demolition of facility.
TRA-730	TRA-632 Hot Cell Tank – A, B, C, & D	NE	Radiological	576	ID-0040B.R1.1	Buy Back Project: Complete Demolition of facility. Part of Voluntary Consent Order accepted work. Does not count as Transfer Facility.
CPP-1610	Salt Storage Control House	EM	Industrial	51	ID-0040B.R1.2	Complete Demolition of facility.
CPP-1637	FPR Weld Fab Shop Warehouse	EM	Industrial	9,967	ID-0040B.R1.2	Complete Demolition of facility.
CPP-1638	Radiological Contaminated Storage Bldg	EM	Industrial	2,070	ID-0040B.R1.2	Complete Demolition of facility.
CPP-1672	Access Control Bldg (TF)	EM	Radiological	158	ID-0040B.R1.2	Complete Demolition of facility.
CPP-1682	Kerosene Tank Pump House	EM	Industrial	2,028	ID-0040B.R1.2	Complete Demolition of facility.
CPP-1760	Above Ground Kerosene Tanks	EM	Industrial	2,034	ID-0040B.R1.2	Complete Demolition of facility.
CPP-1784	Alum. Nitrate Tank Enclosure	EM	Industrial	2,000	ID-0040B.R1.2	Complete Demolition of facility.
CPP-1794	Subcontractor's Staging Area	EM	Industrial	22,500	ID-0040B.R1.2	Complete Demolition of facility. Pad for trailers
CPP-2716	HIC Enclosure	EM	Radiological	3,000	ID-0040B.R1.2	Complete Demolition of facility.
CPP-602	Laboratory/Offices Bldg	EM	Nuclear/Cat 2	52,393	ID-0040B.R1.2	Complete Demolition of facility.
CPP-630	Safety/Spectrometry	EM	Nuclear/Cat 2	21,510	ID-0040B.R1.2	Complete Demolition of facility.
CPP-641	Waste Holdup Pump House	EM	Nuclear/Cat 2	402	ID-0040B.R1.2	Complete Demolition of facility.
CPP-711	Unloading Shelter at CPP-603	EM	Industrial	1,200	ID-0040B.R1.2	Complete Demolition of facility.
CPP-719	CPP-719A&B Nitric Acid Storage VES-CS-100/151	EM	Industrial	700	ID-0040B.R1.2	Complete Demolition of facility.
CPP-720	CPP-720A&B	EM	Industrial	328	ID-0040B.R1.2	Complete Demolition of facility.
CPP-730	Liquid Nitrogen Storage Tank	EM	Industrial	150	ID-0040B.R1.2	Complete Demolition of facility.
CPP-736	Salt Storage Pit	EM	Industrial	1,224	ID-0040B.R1.2	Complete Demolition of facility.
CPP-751	Service Waste Monitor Station	EM	Radiological	130	ID-0040B.R1.2	Complete Demolition of facility.
CPP-752	Service Waste Diversion Station	EM	Radiological	130	ID-0040B.R1.2	Complete Demolition of facility.
CPP-757	Acid Tank	EM	Industrial	1,250	ID-0040B.R1.2	Complete Demolition of facility.
CPP-762	West Side Condensate Pump Pit	EM	Industrial	140	ID-0040B.R1.2	Complete Demolition of facility.
CPP-796	West Side Service Waste Bldg	EM	Radiological	300	ID-0040B.R1.2	Complete Demolition of facility.
NCE-140-1	VES-NCE-140-1 Diesel UST	EM	Industrial	300	ID-0040B.R1.2	Complete Demolition of facility.
NCE-140-2	VES-NCE-140-2 Diesel UST	EM	Industrial	300	ID-0040B.R1.2	Complete Demolition of facility.



Idaho National Laboratory Fact Sheet (cont.)

ARRA D&D Scope for Idaho						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
SAA-101 & 102	VES-SAA 101 & VES-SAA-104 LO2 Tanks	EM	Industrial	2,200	ID-0040B.R1.2	Complete Demolition of facility.
TSF-07	Disposal Pond	EM	Radiological	217,800	ID-0040B.R1.2	Complete Demolition of facility.
UTI-709	VES-UTI-709 Sulfuric Acid Tank	EM	Industrial	450	ID-0040B.R1.2	Complete Demolition of facility.
WO-129	VES-WO-129 LN2 Tanks	EM	Industrial	100	ID-0040B.R1.2	Complete Demolition of facility.
WO-130	VES-WO-130 LN2 Tanks	EM	Industrial	100	ID-0040B.R1.2	Complete Demolition of facility.
CPP-601	Fuel Process Building	EM	Nuclear/Cat 2	101,279	ID-0040B.R1.2	In Situ Decommissioning. Grouting of below-grade process cells and galleries. Demolition of majority of above-grade structure.
CPP-640	Headend Process Plant	EM	Nuclear/Cat 2	17,633	ID-0040B.R1.2	In Situ Decommissioning. Grouting of below-grade process cells and galleries. Demolition of majority of above-grade structure.
ARP-IV	Waste Retrieval Enclosure	EM	Nuclear/Cat 2	33,150	ID-0040B.NEW.R1.3	Complete Demolition of facility.
AL-1	ARP-1 Airlock #1	EM	Radiological	3,500	ID-0040B.NEW.R1.3	Complete Demolition of facility.
AL-2	ARP-1 Airlock #2	EM	Radiological	3,500	ID-0040B.NEW.R1.3	Complete Demolition of facility.
PBF-761	WERF Spray Dryer Absorber	NE	Nuclear/Cat 2	900	ID-0040B.NEW.R1.3	Complete Demolition of facility.
PBF-756	WERF Exhaust Stack	NE	Nuclear/Cat 2	100	ID-0040B.NEW.R1.3	Complete Demolition of facility.
TRA-632	Hot Cell Building	NE	Nuclear/Cat 2	11,862	ID-0040B.NEW.R1.3	Complete Demolition of facility.
PBF-609	WERF Incinerator Building	NE	Nuclear/Cat 2	14,394	ID-0040B.NEW.R1.3	Complete Demolition of facility.
MFC-793E	Sodium Storage Building	NE	Radiological	385	ID-0040B.NEW.R1.3	Complete Demolition of facility.
MFC-793F	Sodium Storage Building	NE	Radiological	578	ID-0040B.NEW.R1.3	Complete Demolition of facility.
TRA-612	Retention Basin Sump Pump House	NE	Nuclear/Cat 2	840	ID-0040B.NEW.R1.3	Complete Demolition of facility.
TRA-613	Hot Waste Storage Pump House	NE	Nuclear/Cat 2	460	ID-0040B.NEW.R1.3	Complete Demolition of facility. Cleanup/Remediation work being performed under the Voluntary Consent Order.
TRA-712	Retention Basin	NE	Nuclear/Cat 2	840	ID-0040B.NEW.R1.3	Complete Demolition of facility. Restoration of underground structure.
TRA-713	Hot Waste Storage Tank – B, C, & D	NE	Nuclear/Cat 2	1,200	ID-0040B.NEW.R1.3	Complete Demolition of facility. Cleanup/Remediation work being performed under the Voluntary Consent Order.
TRA-760	Inactivated Monitoring Station	NE	Nuclear/Cat 2	840	ID-0040B.NEW.R1.3	Complete Demolition of facility.
MFC-750A	Experimental Equipment Building	NE	Nuclear/Cat 2	2,405	ID-0040B.NEW.R1.3	Complete Demolition of facility.
MFC-757A	Cooling Tower System Building	NE	Nuclear/Cat 2	1,600	ID-0040B.NEW.R1.3	Complete Demolition of facility.
MFC-793A	Alcohol Recovery Facility	NE	Radiological	1,000	ID-0040B.NEW.R1.3	Complete Demolition of facility.
MFC-793B	Alcohol Recovery Facility	NE	Radiological	576	ID-0040B.NEW.R1.3	Complete Demolition of facility.
MFC-795	Cover Gas Clean-Up System	NE	Industrial	2,300	ID-0040B.NEW.R1.3	Complete Demolition of facility.



Idaho National Laboratory Fact Sheet (cont.)

ARRA D&D Scope for Idaho						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
VCO Work	Removal of Waste Lines under TRA-632 Hot Cell	NE	Radiological	7,000	ID-0040B.NEW.R1.3	Complete Demolition of facility. Part of Voluntary Consent Order accepted work. Does not count as Transfer Facility.
MFC-766	Sodium Boiler Bldg.	NE	Radiological	14,547	ID-0040B.NEW.R1.3	Facility de-inventoried only.
MFC-767 & EBR-II-725	Reactor Plant	NE	Radiological	18,967	ID-0040B.NEW.R1.3	Deactivation and Demolition Prep; Radioactive sodium residue remaining in the primary and secondary systems was reacted ("passivated") with moist carbon dioxide into sodium bicarbonate; residual pools of sodium that were too deep for complete penetration of the passivation were neutralized with a citric acid solution. The reactor vessel was then filled with grout.
ARP-1	Waste Retrieval Enclosure	EM	Radiological	14,547	ID-0040B.NEW.R1.3	Facility de-inventory only.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Idaho National Laboratory Fact Sheet (cont.)

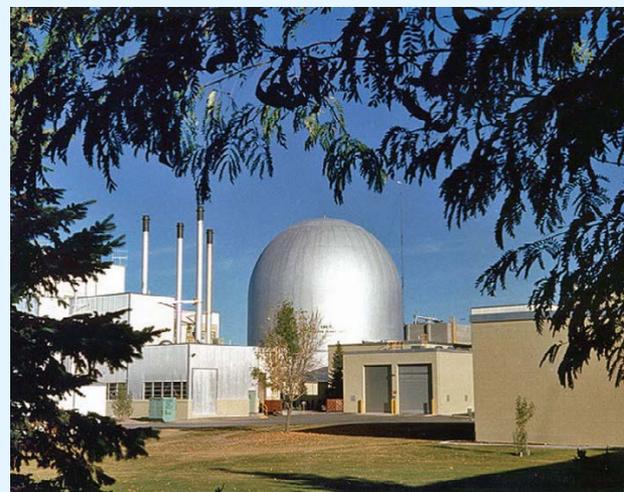


Above: Workers demolished the 1.2-million-pound roof of the building that housed the historic Materials Test Reactor.



Above: CPP-601/640 Interim End-State after completion of ARRA-funded ISD closure. This cap was placed over the CPP-601/640 footprint after ISD closure; the entire INTEC area will undergo RCRA closure in the 2017 time frame during which a final engineered cap will be placed over the entire site.

Right: The EBR-II D&D project included passivation of residual sodium in reactor systems and grouting of reactor vessel.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Los Alamos National Laboratory Fact Sheet

ARRA D&D Scope Life Cycle Cost : \$62,567,000

Percentage of Total Site ARRA Appropriation: 30%

ARRA D&D Scope

Sub-PBS	D&D Scope Performance Parameters
VL-LANL-0040-D.R1	DP West – D&D to slab of 5 TA-21 buildings and 8 ancillary structures; DP East – D&D of 2 buildings and several ancillary structures
VL-LANL-0040-N.R1.1	D&D of the main TSTA Building (Bldg. 21-0155) and 4 ancillary structures

ARRA Accomplishments

Facilities Demolished

Hazard Category	Number	GSF
Nuclear	1	34,272
Radiological	15	99,011
Industrial	6	24,498

ARRA Accomplishments

Facility Clean-Out and/or Deactivation Activities

N/A

ARRA Buy Back D&D Scope

Demolish 2 Radiological Facilities—Building 21-0149 and Building 21-0150 (17,422 GSF)



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Los Alamos National Laboratory Fact Sheet (cont.)

ARRA D&D Scope for Los Alamos						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
21-0002	Laboratory Building	EM	Radiological	14,447	VL-LANL-0040-D.R1	Complete Demolition of facility.
21-0003	Laboratory Building	EM	Radiological	4,656	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0004	Laboratory Building	EM	Radiological	2,188	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0005	Laboratory Building	EM	Radiological	28,390	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0080	Pressure Relief Valve Station (Water)	EM	Industrial	35	VL-LANL-0040-D.R1	Complete Demolition of facility.
21-0116	Warehouse	EM	Industrial	1,864	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0152	Laboratory Bldg	EM	Radiological	12,480	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0166	Equipment Building	EM	Radiological	1,302	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0167	Equipment Building	EM	Radiological	1,302	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0209	Tritium Sci & Tech Bldg	EM	Nuclear/Cat 2	34,272	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0210	Office Building	EM	Industrial	21,379	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0312	Corridor Structure	EM	Radiological	2,072	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0313	Corridor Structure	EM	Radiological	4,275	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0314	Corridor Structure	EM	Radiological	4,843	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0315	Corridor Structure	EM	Radiological	4,773	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0328	Materials Receiving Building	EM	Industrial	320	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0370	Mechanical Equipment	EM	Industrial	900	VL-LANL-0040-D.R1	Demolition completed to slab.
21-0149	Corridor Structure	EM	Radiological	2,580	VL-LANL-0040-D.R1	Buy Back Project: Embedded Scope; Demolition completed to slab.
21-0150	Molecular Chemistry	EM	Radiological	14,842	VL-LANL-0040-D.R1	Buy Back Project: Embedded Scope; Demolition completed to slab.
21-0155	Tritium Systems Test Assembly	EM	Radiological	16,349	VL-LANL-0040-N.R1	Demolition completed to slab.
21-0213	Lab Supply Warehouse	EM	Radiological	1,728	VL-LANL-0040-N.R1	Demolition completed to slab.
21-0220	Cooling Tower	EM	Industrial	NA	VL-LANL-0040-N.R1	Complete Demolition of facility.
21-0388	Exhaust Stack	EM	Radiological	6	VL-LANL-0040-N.R1	Complete Demolition of facility.
21-0420	Cooling Tower	EM	Radiological	200	VL-LANL-0040-N.R1	Complete Demolition of facility.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

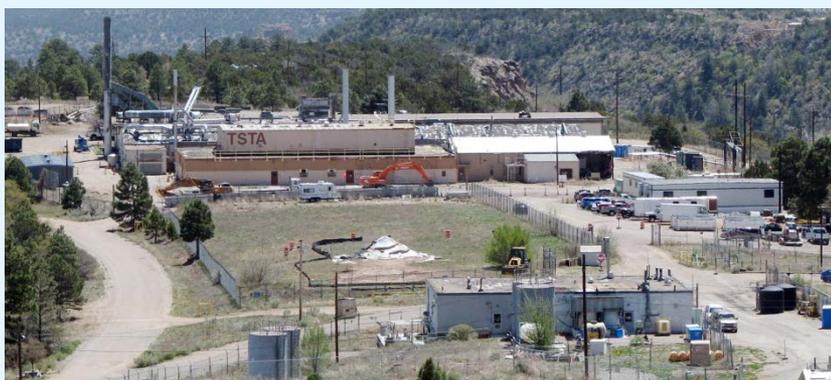
Los Alamos National Laboratory Fact Sheet (cont.)



Demolition of Building 21-0210.



Building 21-0150 was the final building demolished at Los Alamos National Laboratory's historic DP West.



These photos show the DP East area of Los Alamos National Laboratory's Technical Area 21 before and after the demolition of TSTA (Bldg. 21-0155).



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Nevada Nuclear Security Site Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$45,929,000

Percentage of Total Site ARRA Appropriation: 80%

Note: While all of the NNSS ARRA funding was allocated to D&D PBSs, some of the scope included waste disposition and CAU closures.

ARRA D&D Scope

Sub-PBS	D&D Scope Performance Parameters
VL-NV-0030.R1	Demolition of RMAD facility, demolition of Pluto Facility, demolition of nuclear furnace piping and movable shed at Test Cell C Facility

ARRA Accomplishments

Facilities Demolished

Hazard Category	Number	GSF
Nuclear	--	--
Radiological	2	36,949
Industrial	1	1,076

ARRA Accomplishments

Facility Clean-Out and/or Deactivation Activities

N/A

ARRA Buy Back D&D Scope

N/A



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Nevada Nuclear Security Site Fact Sheet (cont.)

ARRA D&D Scope for Nevada						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
25-3110	Reactor Maintenance, Assembly, & Disassembly Facility	EM	Radiological	14,727	VL-NV-0030.R1	Complete Demolition of facility.
26-2201	Pluto Disassembly Facility	EM	Radiological	22,222	VL-NV-0030.R1	Complete Demolition of facility.
3211	Test Cell C Removable Shed	EM	N/A	1,076	VL-NV-0030.R1	Complete Demolition of facility. ARRA scope included dismantlement and removal of Test Cell C Nuclear Furnace Piping. Overall remediation of Test Cell C was a Base Program funded activity.



Nevada Nuclear Security Site Fact Sheet (cont.)



Before: Site of Test Cell C before demolition.



After: Site of Test Cell C after demolition.



Before: Site of the Pluto Disassembly Facility.



After: Site of the Pluto Disassembly Facility.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Oak Ridge Reservation Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$426,720,000

Percentage of Total Site ARRA Appropriation: 57%

ARRA D&D Scope	
Sub-PBS	D&D Scope Performance Parameters
OR-0040.R1.1	Limited pre-demolition activities including: asbestos removal, draining lube oil and coolants, removal of universal wastes, vault clean-out and electrical modifications for the K-27 Building
OR-0040.R1.2	Demolition of the K-33 Building and disposition of associated wastes
OR-0041.R1.1	Complete cleanup and demolition to slab of 15,000 sq ft of Building 9735 at Y-12
OR-0041.NEW.R1.1	Complete removal and disposition of all legacy material in Beta-5 and the entire second floor of Beta-4
OR-0041.NEW.R1.2	Complete cleanup and demolition to slab of four contaminated surplus facilities within the Biology Complex project at Y-12
OR-0041.NEW.R1.3	Complete D&D of Building 9206 Filter House and disposition of all material and waste
OR-0042.R1.1	Removal and disposition of legacy materials in Building 3038 and prepare it for demolition including abatement of hazardous materials, facility deactivation and removal of remaining equipment
OR-0042.R1.2	Complete demolition and disposition of Building 3026 C&D exterior wooden structure
OR-0042.R1.4	Remove legacy material in Building 3026 Hot Cell; abate hazardous materials, characterize hot cell and process equipment; remove hot cell concrete to slab and decontaminate slab
OR-0042.R1.6	Deactivation and decommission 11 facilities in the Small Facilities Area at ORNL
OR-0042.NEW.R2.1	Remove and disposition the excess material from 30,000 sq ft in four buildings in the ORNL Central Campus, Remove and disposition the excess material from 28,000 sq ft in building 2026
OR-0042.NEW.R2.2	Complete demolition of 60,000 sq ft to slab and disposition of 8 surplus contaminated facilities in the 2000 complex
OR-0042.NEW.R2.3	Complete demolition to slab and disposition of 16 general maintenance facilities and the deactivation and decommissioning of 7 contaminated Laboratory Complex facilities within the ORNL Central Campus.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Oak Ridge Reservation Fact Sheet (cont.)

ARRA Accomplishments		
Facilities Demolished		
Hazard Category	Number	GSF
Nuclear	1	Negligible (Filter House Ancillary to Bldg. 9206)
Radiological	31	3,015,625
Industrial	18	168,237

ARRA Accomplishments
Facility Clean-Out and/or Deactivation Activities
Partial Clean-out and demo prep of 1 Nuclear Facility (K-27)
Clean-out of 2 Nuclear Facilities (Bldg. 3038 and 2026). 1 Radiological Facility (Bldg. 4501), and 1 Industrial Facility (Bldg. 3025)
Removal of all legacy material from the Alpha 5 Facility
Removal of legacy material from the entire second floor of the Beta 4 Facility

ARRA Buy Back D&D Scope
Characterization and legacy material removal from the Beta 3 Facility
Characterization and legacy material removal from up to 14 Isotope Row Facilities
Characterization of up to 10 Poplar Creek Facilities*

*Exact scope not specified. Funding will be used to characterize as many buildings as possible up to 10, but not certain if funding is sufficient to accomplish all 10.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Oak Ridge Reservation Fact Sheet (cont.)

ARRA D&D Scope for Oak Ridge National Laboratory

Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
3026C/D	Radioisotope Development Laboratory-B	EM	Radiological	19,900	OR-0042.R1.2	Demolition completed to slab. C-Laboratory=8,300 ft ² D-Hot Cells=11,600 ft ²
3085	Pump House - ORR	EM	Radiological	2,856	OR-0042.R1.6	Complete Demolition of facility.
3085A	ORRR Demineralized Water Holding Tank	EM	Radiological	360	OR-0042.R1.6	Complete Demolition of facility.
3085B	ORRR Demineralized Water Holding Tank	EM	Radiological	360	OR-0042.R1.6	Complete Demolition of facility.
3098	Filter Facility for LITR and BSR	EM	Radiological	240	OR-0042.R1.6	Complete Demolition of facility.
3117A	Sulfuric Acid Tank for BSR Cooling Tower	EM	Industrial	122	OR-0042.R1.6	Complete Demolition of facility.
3119	Heat Exchanger and Pump House	EM	Radiological	690	OR-0042.R1.6	Complete Demolition of facility.
3102	Heat Exchanger No. 2 - ORRR	EM	Radiological	1,125	OR-0042.R1.6	Complete Demolition of facility.
3508	High Level Alpha Radiation Lab	SC	Radiological	13,443	OR-0042.R1.6	Complete Demolition of facility.
3541	MSR Process Dev Lab	SC	Radiological	842	OR-0042.R1.6	Complete Demolition of facility.
3550	Research Lab Annex	SC	Radiological	14,052	OR-0042.R1.6	Complete Demolition of facility.
3592	Coal Conversation Facility	SC	Radiological	1,307	OR-0042.R1.6	Complete Demolition of facility.
multiple	Isotope Row Facility: Radioisotope Area Services	SC	--	--	OR-0042.R1.7	Buy Back Project: Other. Isotope Row Characterization: Characterization & LMR from Building 3034.
multiple	Isotope Row Facilities	EM	--	--	OR-0042.R1.7	Buy Back Project: Other. Isotope Row Characterization: Characterization & LMR from up to 13 Buildings (3028, 3029, 3030, 3031, 3032, 3033, 3093, 3099, 3109, 3110, 3118, 3139, 3033A).
2026	Radioactive Materials Analytical Lab	SC	Nuclear/Cat 3	26,641	OR-0042.NEW.R2.1	Facility Clean-out.
3025M	Solid State Office & Laboratory Building	SC	Industrial	33,840	OR-0042.NEW.R2.1	Facility Clean-out.
4501	Radiochemistry Laboratory	SC	Radiological	76,338	OR-0042.NEW.R2.1	Facility Clean-out.
2034	Manhole 95 Monitoring Station	EM	N/A	64	OR-0042.NEW.R2.2	Complete Demolition of facility.
2000	Solid State Annex/Quality Assurance/Ins2000	SC	Radiological	23,148	OR-0042.NEW.R2.2	Complete Demolition of facility.
2001	Information Center Complex	SC	Radiological	25,925	OR-0042.NEW.R2.2	Complete Demolition of facility.
2019	Solar Energy Lab / Laser Lab	SC	Radiological	878	OR-0042.NEW.R2.2	Complete Demolition of facility.
2024	Quality Assurance & Inspection	SC	Radiological	10,296	OR-0042.NEW.R2.2	Complete Demolition of facility.
2087	Storage I-E	SC	Industrial	187	OR-0042.NEW.R2.2	Complete Demolition of facility.
2088	Emergency Generator	SC	Industrial	162	OR-0042.NEW.R2.2	Complete Demolition of facility.
2092	Storage	SC	Industrial	116	OR-0042.NEW.R2.2	Complete Demolition of facility.



Oak Ridge Reservation Fact Sheet (cont.)

ARRA D&D Scope for Oak Ridge National Laboratory

Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
3103	Basin w/ Cover and Pump House	EM	Industrial	5,720	OR-0042.NEW.R2.3	Complete Demolition of facility.
3629	GAAT Maintenance Tent	EM	Radiological	1,287	OR-0042.NEW.R2.3	Complete Demolition of facility.
2009	Cafeteria Warehouse	SC	Industrial	4,231	OR-0042.NEW.R2.3	Complete Demolition of facility.
2011	Electrical & AC Service Center	SC	Radiological	6,421	OR-0042.NEW.R2.3	Complete Demolition of facility.
2017	East Research Service Corp	SC	Radiological	234	OR-0042.NEW.R2.3	Complete Demolition of facility.
2018	Electrical & AC Service Center	SC	Radiological	8,760	OR-0042.NEW.R2.3	Complete Demolition of facility.
2061	Smoke Stack	SC	Radiological	1,480	OR-0042.NEW.R2.3	Complete Demolition of facility.
2517	HR & Diversity Programs/ Training	SC	Industrial	2,880	OR-0042.NEW.R2.3	Complete Demolition of facility.
3008	Source & Spec Mat Vault	SC	Radiological	563	OR-0042.NEW.R2.3	Complete Demolition of facility.
3012	Rolling Mill	SC	Radiological	10,160	OR-0042.NEW.R2.3	Complete Demolition of facility.
3044	West Complex Field Shop	SC	Radiological	5,834	OR-0042.NEW.R2.3	Complete Demolition of facility.
3084	Neutron Spectrometer	SC	Radiological	3,888	OR-0042.NEW.R2.3	Complete Demolition of facility.
3095	Reactor Area Equipment Building	SC	Radiological	7,008	OR-0042.NEW.R2.3	Complete Demolition of facility.
3111	Sentry Post No 8b	SC	Industrial	48	OR-0042.NEW.R2.3	Complete Demolition of facility.
3112	Misc Storage Building	SC	Radiological	182	OR-0042.NEW.R2.3	Complete Demolition of facility.
3115	Solid State Office	SC	Industrial	2,782	OR-0042.NEW.R2.3	Complete Demolition of facility.
3132	Emergency Generator for 3127, 3129, 3027 with Diesel Tank	SC	Industrial	75	OR-0042.NEW.R2.3	Complete Demolition of facility.
3503	High Radiation Level Chem Engr Lab	SC	Radiological	12,798	OR-0042.NEW.R2.3	Complete Demolition of facility.
3504	Geoscience Laboratory	SC	Radiological	7,557	OR-0042.NEW.R2.3	Complete Demolition of facility.
3543	MSR Development Lab	SC	Industrial	610	OR-0042.NEW.R2.3	Complete Demolition of facility.
3605	TSD Storage Building	SC	Industrial	385	OR-0042.NEW.R2.3	Complete Demolition of facility.
3503A	Building 3503 Storage Pad	SC	Radiological	2,000	OR-0042.NEW.R2.3	Complete Demolition of facility.
3550T	Trailer, Van Type (Intercomparison SDL)	SC	Radiological	314	OR-0042.NEW.R2.3	Complete Demolition of facility.
3038	Isotope Development Laboratory (IDL)	EM	Nuclear/Cat 2	7,773	OR-0042NEW.R2.9	Buy Back Project: Other. Partial clean-out and prepare facility for long term surveillance and maintenance.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

3/13/2013

42

Oak Ridge Reservation Fact Sheet (cont.)

ARRA D&D Scope for Y-12						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/ Scope
9735	Research Services	EM	N/A	15,043	OR-0041.R1.1	Demolition completed to slab.
9201-5	Production (Alpha 5)	NNSA	Nuclear/Cat 3	613,642	OR-0041.NEW.R1.1	Facility Clean-out. Removal of all legacy material.
9204-4	Depleted Uranium Forming, Quality Evaluation & Storage Operations (Beta 4)	NNSA	Nuclear/Cat 2	313,771	OR-0041.NEW.R1.1	Facility Clean-out. Removal of legacy material from the entire second floor, plus additional material from the first floor and basement areas.
9211	Co - Carcinogenesis	SC	Industrial	83,471	OR-0041.NEW.R1.2	Demolition completed to slab.
9220	Virus Control Laboratory	SC	Industrial	22,211	OR-0041.NEW.R1.2	Demolition completed to slab.
9224	Cell Fractionation System	SC	Industrial	10,080	OR-0041.NEW.R1.2	Demolition completed to slab.
9769	Laboratory	NNSA	Industrial	20,050	OR-0041.NEW.R1.2	Demolition completed to slab. Includes 9770-3, a small Emergency Generator facility attached to SW corner of B-9769.
(Ancillary to 9206)	Filter House for B-9206	NNSA	Nuclear/Cat 2	negligible	OR-0041.NEW.R1.3	Demolition completed to slab. Demolition of Filter House attached to B-9206; negligible GSF. B-9206 still remains for transfer.
9204-3	Isotope Separations (Beta-3)	NE	NA	255,656	OR-0042.NEW.R2.4	Buy Back Project: Facility Clean-out. Characterization and Legacy Material Removal. (Building designated for Historical Preservation).

ARRA D&D Scope for ETPP						
Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
K-27	Uranium Enrichment Facility	EM	Nuclear/Cat 2	--	OR-0040.R1.1	Facility Clean-out: 9 bldg units, totaling 383,000 sq ft footprint (partial clean-out and demo prep)
K-33	K-33 Process Bldg	EM	Radiological	2,831,717	OR-0040.R1.2	Complete Demolition of facility. Demolition of vacant building shell.
multiple	Poplar Creek Facilities	EM	--	--	OR-0040.R1.4	Buy Back Project: Other Characterization of up to 10 Buildings (K-1232, K-131, K-631, K-633, K-832, K-832-H, K-1203, K-1314-G/H/J).



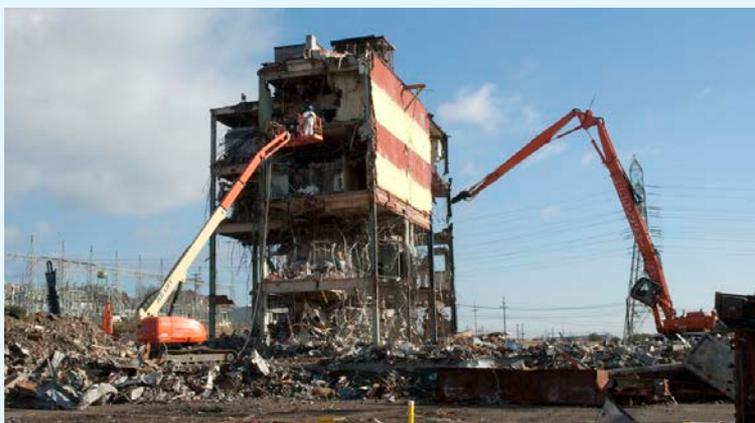
Oak Ridge Reservation Fact Sheet (cont.)



Workers demolished the west portion of the 2000 Complex.



Demolition of Oak Ridge's 1.4 million-square-foot K-33 building. K-33 was one of five gaseous diffusion plants within the Manhattan Project and Cold War-era uranium enrichment production complex at Oak Ridge.



Left: Demolition of Building 9211, the tallest building demolished at Y-12.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Paducah Site Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$78,801,000

Percentage of Total Site ARRA Appropriation: 98%

ARRA D&D Scope	
Sub-PBS	D&D Scope Performance Parameters
PA-0040.R1.1	Complete systems and equipment removal and disposal from C-410
PA-0040.R1.2	Complete hydrofluoric acid system removal from C-340 Complex. Complete accessible asbestos abatement removal. Complete hydrogen system removal. Systems equipment removal from 4 floors of C-340-A and 3 floors of C-340-B, Demolish 2 buildings.
PA-0040.R1.3	Complete loose material removal and disposal from C-746-A. Complete accessible asbestos abatement removal and disposal. Complete process piping removal and disposal. Complete auxiliary equipment removal and disposal.

ARRA Accomplishments		
Facilities Demolished		
Hazard Category	Number	GSF
Nuclear	--	--
Radiological	2	25,498
Industrial	1	Not Reported (Bldg. 340-E)

ARRA Accomplishments
Facility Clean-Out and/or Deactivation Activities
Remove approximately 25% of total piping & equipment from 1 Nuclear Facility
Make 3 Radiological Facilities Demo Ready

ARRA Buy Back D&D Scope
Partial demolition, approximately 31,000 ft ² , of 1 Nuclear Facility (C-410)



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Paducah Site Fact Sheet (cont.)

ARRA D&D Scope for Paducah

Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
C-410	Feed Plant	EM	Nuclear/Cat 2	82,765	PA-0040.R1.1	Facility Clean-out: 25% of total piping & equipment to be removed. Buy Back Scope: acceleration of systems removal & partial demolition (31,000 ft ² demolished).
C-340-D	Magnesium Storage Bldg	EM	Radiological	4,498	PA-0040.R1.2	Complete Demolition of facility.
C-340-E	Emergency Power for Critical Alarms	EM	N/A	--	PA-0040.R1.2	Complete Demolition of facility.
C-340-A	Powder Bldg	EM	Radiological	25,200	PA-0040.R1.2	Facility Clean-out: Make Demolition ready .
C-340-B	Metals Bldg	EM	Radiological	21,360	PA-0040.R1.2	Facility Clean-out: Make Demolition ready .
C-340-C	Slag Bldg	EM	Radiological	4,200	PA-0040.R1.2	Facility Clean-out: Make Demolition ready .
C-746-A	North Warehouse (East End Smelter)	EM	Radiological	21,000	PA-0040.R1.3	Complete Demolition of facility.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Paducah Site Fact Sheet (cont.)



As part of ARRA buy back scope, heavy equipment demolishes part of the eastern third of the Feed Plant (C-410).



Heavy equipment operators gain hands-on training using a robotic demolition machine in the C-340 shipping and receiving area.

Right: Workers remove hazardous asbestos used for insulation throughout the old Metals Plant (C-340-B).



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Portsmouth Site Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$51,344,000

Percentage of Total Site ARRA Appropriation: 43%

ARRA D&D Scope

Sub-PBS	D&D Scope Performance Parameters
PO-0040.R1.2	Complete D&D of above grade structures at the X-533 Switchyard Complex
PO-0040.R1.3	Complete D&D of 5 facilities including all above grade structures, and disposition of project generated waste
PO-0040.R1.4	Complete D&D of 1 facility

ARRA Accomplishments

Facilities Demolished

Hazard Category	Number	GSF
Nuclear	--	--
Radiological	--	--
Industrial	13	286,291

ARRA Accomplishments

Facility Clean-Out and/or Deactivation Activities

N/A

ARRA Buy Back D&D Scope

N/A



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Portsmouth Site Fact Sheet (cont.)

ARRA D&D Scope for Portsmouth

Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
X-533A	533 Switchyard	EM	N/A	11,700	PO-0040.R1.2	Complete Demolition of facility. Gravel switchyard; includes removal of all transformers and electrical components in yard.
X-533B	Switch House	EM	N/A	167,700	PO-0040.R1.2	Complete Demolition of facility.
X-533C	Test and Repair Bldg	EM	N/A	1,235	PO-0040.R1.2	Complete Demolition of facility.
X-533D	Oil House	EM	N/A	490	PO-0040.R1.2	Complete Demolition of facility.
X-533E	Fire Suppression Valve House	EM	N/A	472	PO-0040.R1.2	Complete Demolition of facility.
X-533F	Fire Suppression Valve House	EM	N/A	472	PO-0040.R1.2	Complete Demolition of facility.
X-533H	Gas Reclaiming Cart Garage	EM	N/A	1,500	PO-0040.R1.2	Complete Demolition of facility.
X-633-1	Recirculating Water Pumphouse	EM	N/A	11,335	PO-0040.R1.3	Complete Demolition of facility.
X-633-2A	Cooling Tower	EM	N/A	26,900	PO-0040.R1.3	Complete Demolition of facility.
X-633-2B	Cooling Tower	EM	N/A	26,875	PO-0040.R1.3	Complete Demolition of facility.
X-633-2C	Cooling Tower	EM	N/A	13,080	PO-0040.R1.3	Complete Demolition of facility.
X-633-2D	Cooling Tower	EM	N/A	16,485	PO-0040.R1.3	Complete Demolition of facility.
X-760	Chemical Engineering Building	EM	N/A	8,047	PO-0040.R1.4	Complete Demolition of facility.



Portsmouth Site Fact Sheet (cont.)



X-633 Cooling Tower Complex before demolition.



X-633 Cooling Tower Complex after demolition.



The last seven 120-foot tall towers are dropped all at once at the X-533 Electrical Switchyard in late September 2010.



X-633 Cooling Tower Complex during demolition.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Savannah River Site Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$655,288,000

Percentage of Total Site ARRA Appropriation: 41%

ARRA D&D Scope	
Sub-PBS	D&D Scope Performance Parameters
SR-0030.R1.1	Deactivation of P and R Reactor
SR-0030.R1.2	In situ decommissioning of P Reactor which involves: grouting the reactor building at -20 foot-level and -40 foot-level below grade; removing the stack +145 foot-level to +55 foot-level; grouting the reactor vessel; installing a concrete cover over the reactor vessel; grouting the disassembly basin; demolishing and removing the disassembly basin structure; installing a concrete cover over disassembly basin; modifying the roof drainage at levels listed in the design element; and sealing the reactor building. The closed facility will undergo long-term post-closure care, maintenance, and monitoring. This project is a CERCLA response action.
SR-0030.R1.4	In situ decommissioning of R Reactor involves: grouting the reactor building at -20 foot-level and -40 foot-level below grade; removing the stack +145 foot-level to +55 foot-level; grouting the reactor vessel; installing a concrete cover over the reactor vessel; grouting the disassembly basin; demolishing and removing the disassembly basin structure; installing a concrete cover over disassembly basin; modifying the roof drainage at levels listed in the design element; and sealing the reactor building. The closed facility will undergo long-term post-closure care, maintenance, and monitoring. This project is a CERCLA response action.
SR-0030.R3.1	Remediation and D&D of SATA; D&D of K Area Cooling Tower; completion of the Bio and D&D plan for 235-F including the stack.
SR-0030.R3.2	Decommission the Heavy Water Components Test Reactor; specific work includes removal/disposition of the metal dome, removal/disposition of the reactor vessel, removal/disposition of the two steam generators, grouting the spent fuel pool, grouting the below grade areas of the building and placing a concrete cover over the remaining grouted structure



Savannah River Site Fact Sheet (cont.)

ARRA Accomplishments		
Facilities Demolished		
Hazard Category	Number	GSF
Nuclear	--	--
Radiological	14	815,678
Industrial	16	119,482

ARRA Accomplishments
Facility Clean-Out and/or Deactivation Activities
293-F Ventilation Stack (for 235-F) Height Reduction

ARRA Buy Back D&D Scope
N/A



Heavy Water Components Test Reactor (HWCTR) decommissioning. The photo at left shows the removal of the containment dome. The photo at right shows the site of the reactor following completion of the project.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Savannah River Site Fact Sheet (cont.)

ARRA D&D Scope for Savannah River

Facility ID	Facility Name/Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
105-P	P-Area Reactor	EM	Radiological	385,000	SR-0030.R1.2	In Situ Decommissioning. Complete ISD of Reactor Building and connected ancillary structures. Fill below-grade areas with grout and seal above-grade structure.
108-1P	Engine House	EM	Radiological	6,162	SR-0030.R1.2	In Situ Decommissioning. P-Reactor ancillary structure included in ISD closure
108-2P	Engine House	EM	Radiological	9,161	SR-0030.R1.2	In Situ Decommissioning. P-Reactor ancillary structure included in ISD closure
191-P	Standby Pump House	EM	Radiological	340	SR-0030.R1.2	In Situ Decommissioning. P-Reactor ancillary structure included in ISD closure
106-P	Process Water Storage Tank	EM	Radiological	--	SR-0030.R1.2	In Situ Decommissioning. Part of P-Area Operable Unit ISD Closure; isolation, plugging and grouting of system.
109-P	Purge Water Storage Basin	EM	Radiological	--	SR-0030.R1.2	In Situ Decommissioning. Part of P-Area Operable Unit ISD Closure; isolation, plugging and grouting of system.
107-1P	Cooling Water Effluent Sump	EM	Radiological	--	SR-0030.R1.2	In Situ Decommissioning. Part of P-Area Operable Unit ISD Closure; isolation, plugging and grouting of system
105-R	R-Area Reactor	EM	Radiological	385,000	SR-0030.R1.4	In Situ Decommissioning. Complete ISD of Reactor Building and connected ancillary structures. Fill below-grade areas with grout and seal above-grade structure.
108-1R	Engine House	EM	Radiological	5,544	SR-0030.R1.4	In Situ Decommissioning. R-Reactor ancillary structure included in ISD closure
108-2R	Engine House	EM	Radiological	9,071	SR-0030.R1.4	In Situ Decommissioning. R-Reactor ancillary structure included in ISD closure
106-R	Process Water Storage Tank	EM	Radiological	--	SR-0030.R1.4	In Situ Decommissioning. Part of R-Area Operable Unit ISD Closure; isolation, plugging and grouting of system
107-R	Cooling Water Effluent Sump	EM	Radiological	--	SR-0030.R1.4	In Situ Decommissioning. Part of R-Area Operable Unit ISD Closure; isolation, plugging and grouting of system
181-R	Water Treatment and Water Storage	EM	Radiological	--	SR-0030.R1.4	In Situ Decommissioning. Part of R-Area Operable Unit ISD Closure; isolation, plugging and grouting of system



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

3/13/2013

53

Savannah River Site Fact Sheet (cont.)

ARRA D&D Scope for Savannah River (cont.)

Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
661-G	SATA Patrol Training Building	EM	Industrial	4,000	SR-0030.R3.1	Complete Demolition of facility.
661-1G	SATA Control Building	EM	Industrial	--	SR-0030.R3.1	Complete Demolition of facility.
661-2G	SATA Firing Shed	EM	Industrial	--	SR-0030.R3.1	Complete Demolition of facility.
905-118G	SATA Well Pump House	EM	Industrial	--	SR-0030.R3.1	Complete Demolition of facility.
607-10G	SATA Septic Tank	EM	Industrial	--	SR-0030.R3.1	Complete Demolition of facility.
701-18G	SATA Parking Lots/Pistol Range	EM	Industrial	415	SR-0030.R3.1	Complete Demolition of facility.
185-3K	K-Area Reactor Cooling Tower	EM	Industrial	95,000	SR-0030.R3.1	Complete Demolition of facility.
710-1B	Hazardous Chemical Storage (SRTC Warehouse)	EM	Industrial	2,687	SR-0030.R3.1	Complete Demolition of facility.
710-2B	Hazardous Chemical Storage (SRTC Warehouse)	EM	Industrial	2,687	SR-0030.R3.1	Complete Demolition of facility.
710-3	Storage	EM	Industrial	2,687	SR-0030.R3.1	Complete Demolition of facility.
651-6G	Primary Transformer Substation 681-6G	EM	Industrial		SR-0030.R3.1	Complete Demolition of facility.
681-6G	PAR Pond Pump House	EM	Industrial	4,722	SR-0030.R3.1	Complete Demolition of facility.
681-7G	Pump House Equipment Building	EM	Industrial	1,910	SR-0030.R3.1	Complete Demolition of facility.
681-23G	Chlorine Building	EM	Industrial	985	SR-0030.R3.1	Complete Demolition of facility.
735-7G	Environmental Support Facility, PAR Pond	EM	Industrial	3,200	SR-0030.R3.1	Complete Demolition of facility.
735-8G	Greenhouse	EM	Industrial	1,189	SR-0030.R3.1	Complete Demolition of facility.
770-U	HWCTR	EM	Radiological	15,400	SR-0030.R3.1	In Situ Decommissioning. Remove reactor vessel, steam generators, & containment dome; fill below grade areas with grout.



K-Area Cooling Tower during demolition



K-Area Cooling Tower after demolition



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Savannah River Site Fact Sheet (cont.)



P-Area and R-Area production reactors were decommissioned. Left: Workers decommissioning P Reactor. Right: P Reactor in final ISD configuration.



Right: Workers demolish and remove the 105-R Disassembly Basin structure.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

3/13/2013

55

Separations Process Research Unit Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$44,800,000

Percentage of Total Site ARRA Appropriation: 76%

ARRA D&D Scope

Sub-PBS	D&D Scope Performance Parameters
VL-SPRU-0040.R1.1	Remove up to 4 nuclear facilities by the end of FY 2011

ARRA Accomplishments

Facilities Demolished

Hazard Category	Number	GSF
Nuclear	*	--
Radiological	--	--
Industrial	--	--

* The definitized ARRA project scope was to completely demolish Nuclear Buildings G2 and H2 (60,130 GSF). Approximately 62% of the planned work was completed prior to the exhaustion of ARRA funding. The remaining scope will be transferred to the Base program for completion.

ARRA Accomplishments

Facility Clean-Out and/or Deactivation Activities

N/A

ARRA Buy Back D&D Scope

N/A



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

Separations Process Research Unit Fact Sheet (cont.)



The G2 Building, which housed the laboratories, hot cells, separations process testing equipment, and a tunnel system, is being prepared for demolition.



WGI tank vault excavation.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

West Valley Demonstration Project Fact Sheet

ARRA D&D Scope Life Cycle Cost: \$53,994,000

Percentage of Total Site ARRA Appropriation: 86%

ARRA D&D Scope

Sub-PBS	D&D Scope Performance Parameters
OH-WV-0040.R1.1	Accelerate Main Plant Process Building Decontamination by recovering deferred FY 2008 work and removing additional piping and vessels to reduce overall MPPB source-term.

ARRA Accomplishments

Facilities Demolished

Hazard Category	Number	GSF
Nuclear	--	--
Radiological	--	--
Industrial	--	--

ARRA Accomplishments

Facility Clean-Out and/or Deactivation Activities

Removal of vessels and process piping from the Main Plant Process Building to support future demolition

ARRA Buy Back D&D Scope

N/A



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13

West Valley Demonstration Project Fact Sheet (cont.)

ARRA D&D Scope for West Valley

Facility ID	Facility Name/ Description	PSO	Hazard Category	GSF	ARRA PBS	ARRA Project Type/Scope
MPPB	Main Plant Process Building	EM	Nuclear/Cat 3	35,000	OH-WV-0040.R1.1	Facility Clean-out. Removal of vessels and process piping to support future demolition.



Workers remove material containing asbestos from the Main Plant Process Building to prepare the facility for eventual demolition.



WVES operators operate the in-cell scabbling equipment from the Off Gas Aisle.



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

Office of Site Restoration, EM-10
Office of D&D and Facility Engineering, EM-13