

# Annual Fire Protection Program Summary for Calendar Year 2008



UNITED STATES DEPARTMENT OF ENERGY

Summary Provided by:

Office of Corporate Safety Analysis

and

Office of Nuclear Safety, Quality Assurance and Environment

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## Foreword

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This edition of the Annual Fire Protection Program Summary for the Department of Energy (DOE) continues the series started in 1972.

Since May 1950, an Annual Fire Protection Program Summary (Annual Summary) has been submitted by DOE's fire protection community under the requirements of DOE's predecessor agencies: the Atomic Energy Commission (AEC) and the Energy Research Development Administration (ERDA). This report is currently required by section 5a (8) of DOE Order 231.1, *Environment, Safety and Health Reporting* and is considered the primary source for quantifying monetary loss from fire across the DOE Complex.

The report for calendar year (CY) 2008 was summarized from information sent to Headquarters by 24 reporting elements, representing approximately 82 percent of DOE's facility and equipment valuation (most of the significant DOE facilities have reported into this database, with the exception of the Power Marketing Authority and Headquarters offices). Abbreviations are identified in the Glossary, as are the DOE site reporting elements and major definitions.

In 1999, the Annual Summary reporting process was automated to streamline data collection and provide a more comprehensive look at reporting element activities. It is now possible to view all responses since 1991 at the Site, Operations, Lead Program Secretarial Office and Headquarters levels. In 2007, a new Fire Protection Reporting System was designed by the Office of Corporate Safety Analysis and implemented across the DOE Complex. This new process allows sites to submit their information on a real-time basis versus the submittal of an annual summary as was provided in the past.

The information contained in this publication was extracted from the Fire Protection Reporting System for CY 2008. Although, the requirement is for sites to submit this data to the Office of Health, Safety and Security (HSS) by March 31 of each year, this report was generated based on data reported into the Fire Protection Reporting System as of 9/2/09 to allow sites ample time to work with and submit data into the newly utilized database.

The Fire Protection Reporting System can be found at <http://www.hss.energy.gov/nuclearsafety/ns/fire/fpdb.html>. Access to this system can be obtained by contacting Larry McCabe via telephone at 301-903-6732 or via email at [Larry.McCabe@hq.doe.gov](mailto:Larry.McCabe@hq.doe.gov).

HSS plans on continuing to work with the DOE Fire Safety Committee to examine the content of the annual report (including existing reporting fields contained within this Summary and other supporting fire protection program information that may be utilized) to improve its benefit to both Headquarters and Field Elements. Please contact Larry McCabe if you have any suggestions for improving this reporting process.

## Glossary

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### Headquarters Organizational Elements:

NNSA	National Nuclear Security Administration
SC	Science
FE	Fossil Energy
NE	Nuclear Energy
EM	Environmental Management
PMA	Power Marketing Administrations <sup>1</sup>
EE	Energy Efficiency & Renewable Energy
RW	Civilian Radioactive Waste Management
LM	Legacy Management
HSS	Health, Safety & Security

### Field/Area/Site Organizational Elements:

CAO	Carlsbad Area Office
CH	Chicago Operations Office
HQ	DOE Headquarters
GFO	Golden Field Office
DOE-ID	Idaho Operations Office
KCSO	Kansas City Site Office
LSO	Livermore Site Office
LASO	Los Alamos Site Office
NETL	National Energy Technology Laboratory
NPR	Naval Petroleum Reserves
NSO	Nevada Site Office
ORO	Oak Ridge Operations Office
ORP	Office of River Protection
PXSO	Pantex Site Office
RL	Richland Operations Office
SSO	Sandia Site Office
SRO	Savannah River Operations Office
SPR	Strategic Petroleum Reserve <sup>2</sup>
YSO	Y-12 Site Office

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<sup>1</sup> Power Administration organizations are comprised of the Bonneville Power Administration (BPA); Southeastern Power Administration (SEPA); Southwestern Power Administration (SWPA); and the Western Area Power Administration (WAPA).

<sup>2</sup> Strategic Petroleum Reserve Sites include: Bayou Choctaw, Big Hill, Bryan Mound and West Hackberry.

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**Site abbreviations:**

ALA	Ames Laboratory
ANL	Argonne National Laboratory
AEMP	Ashtabula Environmental Management Project
BAPL	Bettis Atomic Power Laboratory
BNL	Brookhaven National Laboratory
ETTP	East Tennessee Technology Park
FNAL	Fermi National Accelerator Laboratory
FEMP	Fernald Environmental Management Project
HAN	Hanford Site <sup>3</sup>
INL	Idaho National Laboratory
KAPL	Knolls Atomic Power Laboratory
KCP	Kansas City Plant
KSO	Kesselring Site Operations
KAFB	Kirtland AFB
LBNL	Lawrence Berkeley National Laboratory
LLNL	Lawrence Livermore National Laboratory
LANL	Los Alamos National Laboratory
MEMP	Miamisburg Environmental Management Project
NETL	National Energy Technology Laboratory
NREL	National Renewable Energy Laboratory <sup>4</sup>
NRF	Naval Reactor Facilities
NTS	Nevada Test Site <sup>5</sup>
ORISE	Oak Ridge Institute for Science and Education
ORNL	Oak Ridge National Laboratory
TWPC	TRU Waste Processing Center
PX	Pantex Plant
PGDP	Paducah Gaseous Diffusion Plant <sup>6</sup>
PORTS	Portsmouth Gaseous Diffusion Plant <sup>6</sup>
PPPL	Princeton Plasma Physics Laboratory
SLAC	Stanford Linear Accelerator Center
SNL AL	Sandia National Laboratories, Albuquerque
SNL CA	Sandia National Laboratories, Livermore
SRS	Savannah River Site
TJNAF	Thomas Jefferson National Accelerator Facility
WIPP	Waste Isolation Pilot Plant
WVDP	West Valley Demonstration Project
Y-12	Y-12 Plant
YMP	Yucca Mountain Project

The reference below is used throughout the report to identify various DOE elements:

DOE field organization (abr.)/Site (abr.)

*Example: LASO/LANL*

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<sup>3</sup> Hanford Site includes the Pacific Northwest National Laboratory.

<sup>4</sup> National Renewable Energy Laboratory includes the Wind Site.

<sup>5</sup> Nevada Test Site Includes: Amador Valley Operations, Las Vegas Operations, Nevada-Los Alamos Operations, Nevada-Special Technology Laboratory, Washington Aerial Measurements Operation, and Nevada-EG&G Wolburn NV.

<sup>6</sup> On July 1, 1993, a lease agreement took effect between the DOE and the United States Enrichment Corporation (USEC) essentially transferring all ownership responsibilities to USEC.

## Definitions

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The following terms are defined in the text of DOE Manual M 231.1-1, *Environment, Safety, and Health Reporting Manual*. Major definitions not included in this manual have been extracted from the rescinded order DOE 5484.1 to clarify key concepts. Section references to these documents are given at the end of the definition.

**Property Value / Valuation:** The approximate replacement value of all DOE-owned buildings/facilities and equipment. Included are the cost of all DOE-owned supplies and average inventory of all source and special nuclear materials. Excluded are the cost of land, land improvements (such as sidewalks or roads), and below ground facilities not susceptible to damage by fire or explosion (such as major water mains and ponds). (APPENDIX C, DOE M 231.1)

Total valuation is obtained by summing information from the Facility Information Management System (FIMS), and the Property Information Database System (PIDS). FIMS is the Department's official repository of real property data; whereas, PIDS provides the means for reporting DOE and contractor held property for sensitive items and equipment (\$5k to \$25k and greater than \$25k).

**Estimated Loss:** Monetary loss determination based on all estimated or actual costs to restore DOE facility and equipment to pre-occurrence conditions irrespective of whether this is in fact performed. The estimate includes: (1) any necessary nuclear decontamination; (2) restoration in areas that received water or smoke damage; (3) any loss reductions for salvage value; and (4) any lost revenue experienced as a result of the accident. The estimate excludes: (1) down time; and (2) any outside agency payments. Losses sustained on private property are not reportable, even if DOE is liable for damage and loss consequences resulting from the occurrence. Categorization of occurrences shall be by fire loss and non-fire loss events. (APPENDIX C, DOE M 231.1)

**Fire Loss:** All damage or loss sustained as a consequence of (and following the outbreak of) fire shall be classified as a fire loss. Exceptions are as follows: (1) burnout of electric motors and other electrical equipment through overheating from electrical causes shall be considered a fire loss only if self-sustained combustion exists after power is shut off. (APPENDIX C, DOE M 231.1)

**Loss Rate:** Unit of comparison in cents loss per \$100 of valuation (facilities and equipment).

## **Executive Summary**

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DOE experienced no fatalities or major injuries from fire in CY08. There were, however, 101 fire loss events reported during the period causing an estimated \$573,161 in property damage. These reported losses are approximately \$1,100,000 less than fire losses reported in CY07, with 77% of losses in CY08 attributed to 5 incidents (with losses valued at greater than \$10,000 per event).

Loss comparisons between the DOE and private industry are performed by normalizing data against total facility and property value (or valuation). Total DOE valuation increased by about 9 percent (from \$67.4 to \$73.4 Billion). Of those sites reporting into the Fire Protection Program database (with a total valuation of \$60.6 Billion), the overall CY08 fire loss rate for those sites was approximately 0.10 cents for each \$100 in total site valuation (less than half of the CY07 rate of 0.25 cents).

Recurring costs for fire protection approached \$150.2 million in CY08 which is approximately \$17.8 million less than what was spent in CY07. On a ratio of cost to total valuation, the DOE spent approximately 24.8 cents per \$100 in valuation for recurring fire protection activities for those sites reporting into the Fire Protection Program database (almost the same as was reported in CY07).

In CY08, only one fire occurred in areas that were controlled by automatic fire suppression systems. However, the Department experienced the inadvertent actuation of 14 wet-pipe systems primarily due to weather-related events (freeze).

## DOE Property Loss Experience

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Property and facility value estimates serve as a common denominator for comparing Annual Summary loss rates. In CY08, total DOE valuation increased by approximately 9 percent to a total of approximately \$73.4 billion. For those sites reporting into the Fire Protection Program database, valuations totaled \$60.6 billion. DOE elements reported 101 fire loss events<sup>1</sup> that accounted for a total year-end fire loss of \$573,161.

In addition to fire related losses in CY08, DOE had losses of \$229,700 in non-fire related fire protection system events. These events are related to system leaks, spills and other inadvertent releases/discharges. Of that total, one site had 42 similar events related to a malfunction of a capacitor in an actuator that resulted in a system discharge. Costs to recharge the system are estimated at \$5,000 per event. These 42 events accounted for approximately 90% of the costs associated with all non-fire related fire protection system events. Weather related damage accounted for the majority of the other system leaks.

These property loss events are categorized as follows:

Fire related:	Fire/Smoke (Building)	42 Events	\$330,340
	Fire/Smoke (Brush)	25 Events	\$182,500
	Fire/Smoke (Vehicle)	10 Event	\$13,700
	Fire/Smoke (Other)	30 Events	<u>\$46,621</u>
			\$573,161
Non-Fire related:	Leaks, Spills, Releases	63 Events	\$229,700

DOE's fire loss rate for CY08, as reported into the Fire Protection Reporting System, is approximately 0.095 cents loss per \$100 valuation.

**Table 1:** Characterizes Annual Summary loss histories since 1950 and includes both fire and non-fire loss rate categories up to 2003 when the non-fire reporting total was discontinued. Numbers shown in parentheses represent a 5-year running average, where applicable.

The accompanying figures are described as follows:

**Figure 1:** Graphical representation of the Department's property valuation since 1950

**Figure 2:** Fire property loss since 1983

**Figure 3:** Fire loss rates since 1989

**Figure 4:** Number of fire events reported at the 8 sites posting greater than \$10,000 in total losses

**Figure 5:** The current year's fire loss (dollars) by those sites with greater than \$10,000 in total losses

**Figure 6:** The current year's fire loss rate by those sites with greater than \$10,000 in total losses

**Figure 7:** Distribution of recurring Fire Protection Costs by activity

**Figure 8:** The costs of fire protection costs in cents per \$100 of valuation

Organizations not shown in Figures 4 through 6 reported either insignificant or zero losses for the year.

Trending of fire loss data continues to indicate that a small number of incidents constitute the majority of dollar losses reported to the DOE. For example, there were 5 fire incidents this year with loss figures of \$10,000 or more per event. These accounted for approximately 77 percent of the total dollar loss amount

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<sup>1</sup> By comparison, the Occurrence Reporting and Processing System (ORPS) logged 24 fire events in CY 2008. Also, page 16 of this report indicates that Fire Departments logged a total of 413 fire events over the year, with a majority of events determined by the sites to be insignificant for Headquarters' reporting purposes.

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for the entire complex. One event at Los Alamos resulted in estimated losses of \$150,000 while another at the Kansas City Plant resulted in losses of approximately \$225,000.

The largest fire loss for the year is noted as follows:

**KCP:** A fire alarm system UPS battery cabinet located in the Patrol HQ equipment room experienced an over charge or short circuit condition that resulted in the batteries overheating and burning. Fire damage was limited to the UPS cabinet, but smoke and water damage occurred to the back up fire alarm computer and other electronic equipment in the room. Fire was contained to cabinet of origin by the operation of one sprinkler head. The fire was extinguished by the Kansas City Fire Department. Property losses were estimated at \$224,675.

**Table 1**

**DOE Loss History from 1950 to Present**

Year	Valuation (Millions of Dollars)	Fire Loss (Dollars)	Non-Fire Loss (Dollars)	Loss Rates (Cents per 100 Dollar Value)		
				Fire*	Non-Fire*	Total*
50	1,800.00	486,389	10,050	2.70	0.06	2.76
51	2,177.10	38,318	317,797	0.18	1.46	1.64
52	3,055.10	449,107	356,600	1.47	1.17	2.64
53	4,081.00	148,142	427,430	0.36	1.05	1.41
54	6,095.90	185,438	190,436	0.30	0.31	0.62
55	6,954.20	125,685	330,103	0.18 (1.00)	0.47 (0.81)	0.66 (1.81)
56	7,364.10	2,206,478	940,945	3.00 (0.50)	1.28 (0.89)	4.27 (1.39)
57	7,973.20	590,663	885,936	0.74 (1.06)	1.11 (0.86)	1.85 (1.92)
58	8,102.50	275,560	476,265	0.34 (0.92)	0.59 (0.84)	0.93 (1.76)
59	10,301.80	199,841	998,060	0.19 (0.91)	0.97 (0.75)	1.16 (1.67)
60	10,708.60	636,228	764,823	0.59 (0.89)	0.71 (0.88)	1.31 (1.77)
61	11,929.90	325,489	5,530,566	0.27 (0.97)	4.64 (0.93)	4.91 (1.91)
62	12,108.80	3,020,023	293,341	2.49 (0.43)	0.24 (1.60)	2.74 (2.03)
63	13,288.90	599,056	776,998	0.45 (0.78)	0.58 (1.43)	1.04 (2.21)
64	14,582.80	480,519	870,516	0.33 (0.80)	0.60 (1.43)	0.93 (2.23)
65	15,679.30	1,743,448	2,106,621	1.11 (0.83)	1.34 (1.35)	2.46 (2.18)
66	16,669.00	158,220	698,753	0.09 (0.93)	0.42 (1.48)	0.51 (2.41)
67	17,450.90	359,584	2,423,350	0.21 (0.90)	1.39 (0.64)	1.59 (1.53)
68	18,611.90	155,986	713,097	0.08 (0.44)	0.38 (0.87)	0.47 (1.31)
69	20,068.30	27,144,809	909,525	13.53 (0.37)	0.45 (0.83)	13.98 (1.19)
70	22,004.30	89,456	1,611,336	0.04 (3.00)	0.73 (0.80)	0.77 (3.80)
71	24,155.80	78,483	1,857,566	0.03 (2.79)	0.77 (0.68)	0.80 (3.47)
72	26,383.50	222,590	698,061	0.08 (2.78)	0.26 (0.75)	0.35 (3.52)
73	27,166.70	117,447	2,258,241	0.04 (2.75)	0.83 (0.52)	0.87 (3.27)
74	28,255.50	249,111	930,766	0.09 (2.75)	0.33 (0.61)	0.42 (3.36)
75	31,658.30	766,868	4,485,481	0.24 (0.06)	1.42 (0.59)	1.66 (0.64)
76	35,512.70	251,849	2,040,727	0.07 (0.10)	0.57 (0.72)	0.65 (0.82)
77	39,856.10	1,084,823	2,529,161	0.27 (0.11)	0.63 (0.68)	0.91 (0.79)
78	47,027.10	12,976,036	4,501,943	2.76 (0.14)	0.96 (0.76)	3.72 (0.90)
79	50,340.80	654,716	1,886,307	0.13 (0.69)	0.37 (0.78)	0.50 (1.47)
80	54,654.70	1,385,686	7,160,249	0.25 (0.69)	1.31 (0.79)	1.56 (1.49)
81	59,988.80	2,042,633	2,600,855	0.34 (0.70)	0.43 (0.77)	0.77 (1.47)
82	65,360.40	948,691	3,252,277	0.15 (0.75)	0.50 (0.74)	0.64 (1.49)
83	70,484.40	731,234	9,765,828	0.10 (0.73)	1.39 (0.71)	1.49 (1.44)
84	82,166.90	1,549,807	4,917,513	0.19 (0.19)	0.60 (0.80)	0.79 (0.99)
85	86,321.84	1,145,975	2,983,322	0.13 (0.21)	0.35 (0.85)	0.48 (1.05)
86	82,787.52	805,030	4,490,262	0.10 (0.18)	0.54 (0.65)	0.64 (0.83)
87	91,927.20	1,570,736	1,440,093	0.17 (0.13)	0.16 (0.67)	0.33 (0.81)
88	92,998.00	466,120	7,837,000	0.05 (0.14)	0.84 (0.61)	0.89 (0.74)
89	107,948.00	615,551	6,890,000	0.06 (0.13)	0.64 (0.50)	0.70 (0.63)
90	115,076.00	8,392,746	9,078,000	0.73 (0.10)	0.79 (0.51)	1.52 (0.61)
91	118,868.68	608,740	1,820,065	0.05 (0.22)	0.15 (0.59)	0.20 (0.81)
92	118,267.06	1,166,858	2,486,696	0.10 (0.21)	0.21 (0.52)	0.31 (0.73)
93	119,826.25	679,939	2,338,595	0.06 (0.20)	0.19 (0.53)	0.25 (0.73)
94	124,350.29	1,533,717	1,869,933	0.12 (0.20)	0.15 (0.40)	0.27 (0.60)
95	120,321.68	720,720	911,746	0.06 (0.21)	0.08 (0.30)	0.14 (0.51)
96	113,471.00	2,372,482	3,653,350	0.21 (0.08)	0.32 (0.16)	0.53 (0.24)
97	102,947.24	544,924	5,567,963	0.05 (0.11)	0.54 (0.19)	0.59 (0.30)
98	99,127.79	316,475	1,062,313	0.03 (0.10)	0.11 (0.26)	0.14 (0.36)
99	110,858.47	443,049	2,467,991	0.04 (0.10)	0.22 (0.24)	0.26 (0.34)

\* Numbers shown in parentheses represent the previous 5-year running average.

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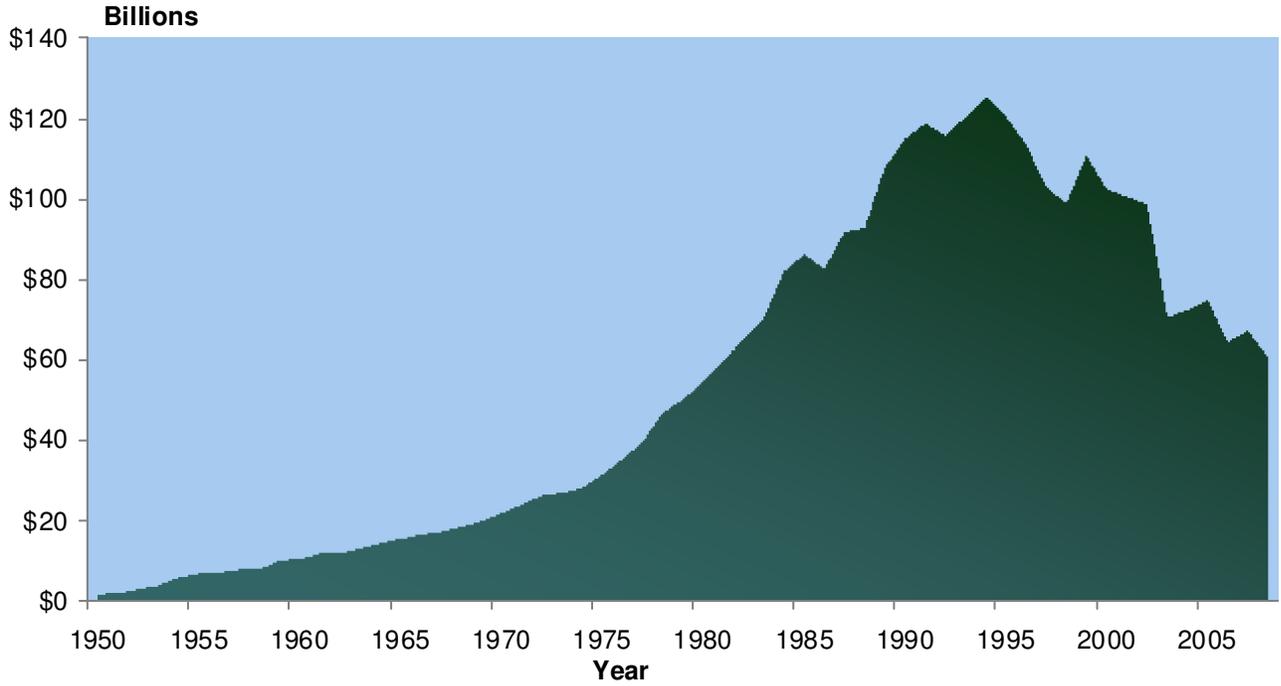
Year	Valuation (Millions of Dollars)	Fire Loss (Dollars)	Non-Fire Loss (Dollars)	Loss Rates (Cents per 100 Dollar Value)		
				Fire*	Non-Fire*	Total*
00	102,514.01	102,861,283	312,839	10.03 (0.08)	0.03 (0.25)	10.06 (0.33)
01	103,215.56	287,263	218323	0.03 (2.07)	0.02 (0.25)	0.05 (2.32)
02	98,779.44	1,541,174	920,673	0.16 (2.04)	0.09 (0.19)	0.25 (2.23)
03	70,812.80	1,075,309	NC	0.15 (2.06)	NC NC	NC NC
04	72,601.95	622,613	NC	0.09 (2.08)	NC NC	NC NC
05	74,951.25	2,537,565	NC	0.34 (2.09)	NC NC	NC NC
06	64,547.05	997,805	NC	0.15 (0.15)	NC NC	NC NC
07	67,382.01	1,674,515	NC	0.25 (0.18)	NC NC	NC NC
08	60,576.55	573,161	NC	0.10 (0.20)	NC NC	NC NC

\* Numbers shown in parentheses represent the previous 5-year running average.

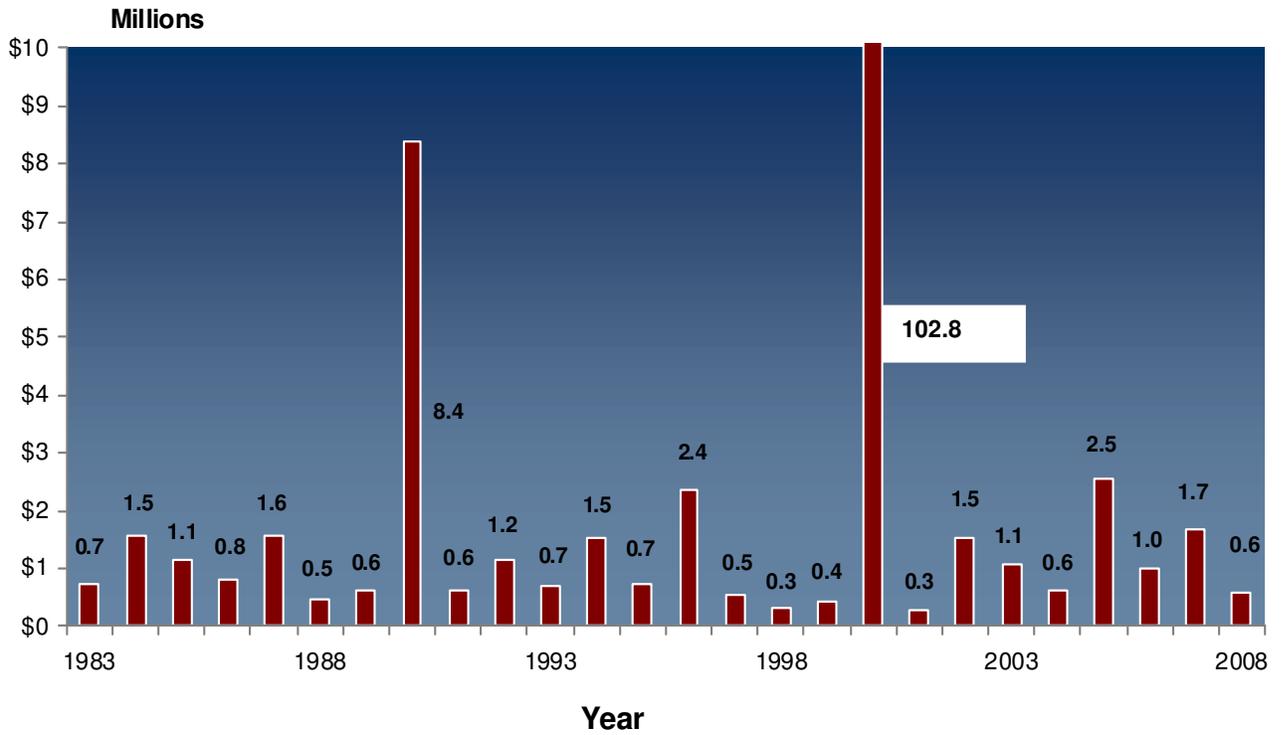
NC – The data is no longer collected

The CY00 fire loss was primarily due to the Cerro Grande fire at LANL.

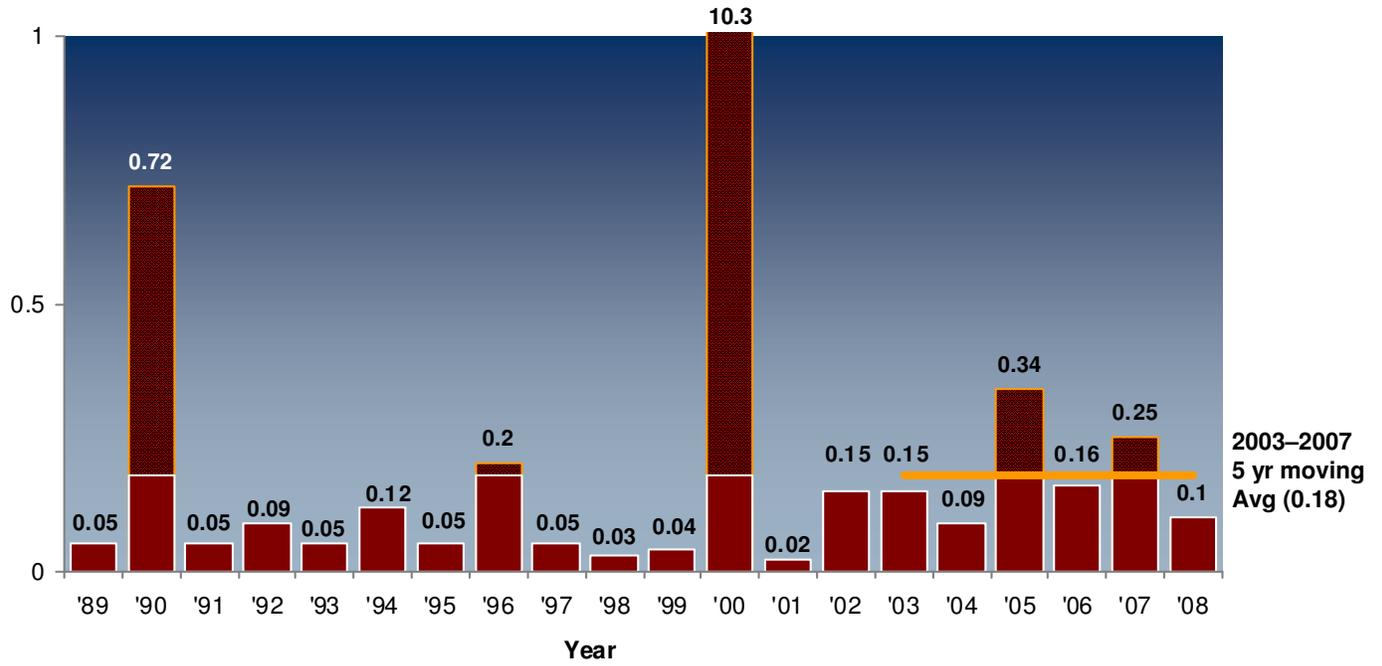
**Figure 1**  
**DOE Valuation**



**Figure 2**  
**Property and Facility Losses due to Fires**

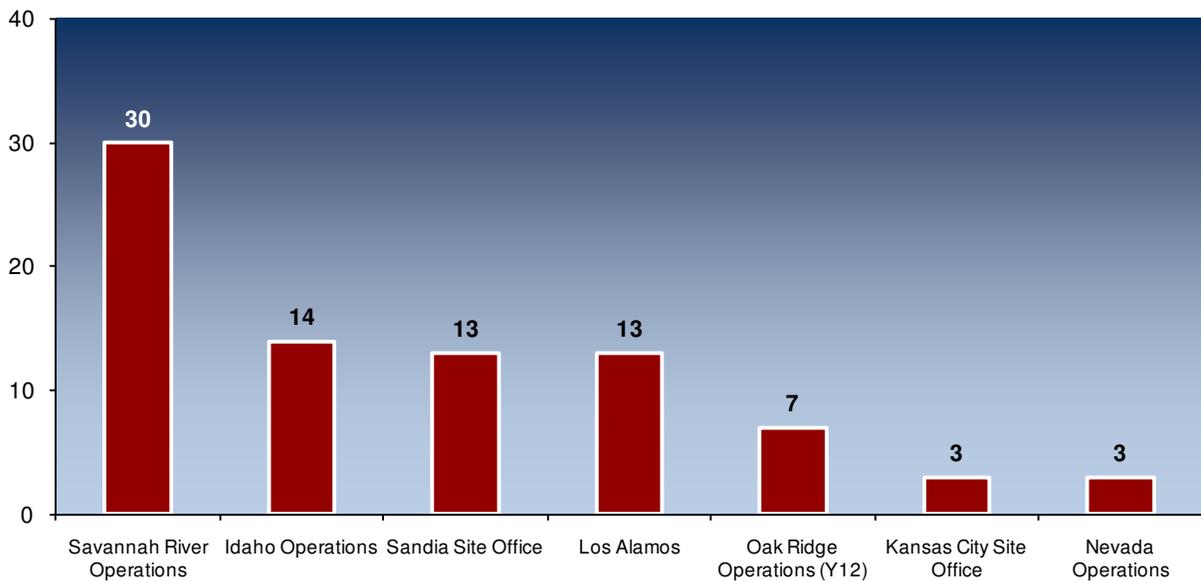


**Figure 3**  
**DOE Fire Loss Rate**  
 (Rate in cents per \$100 of valuation)



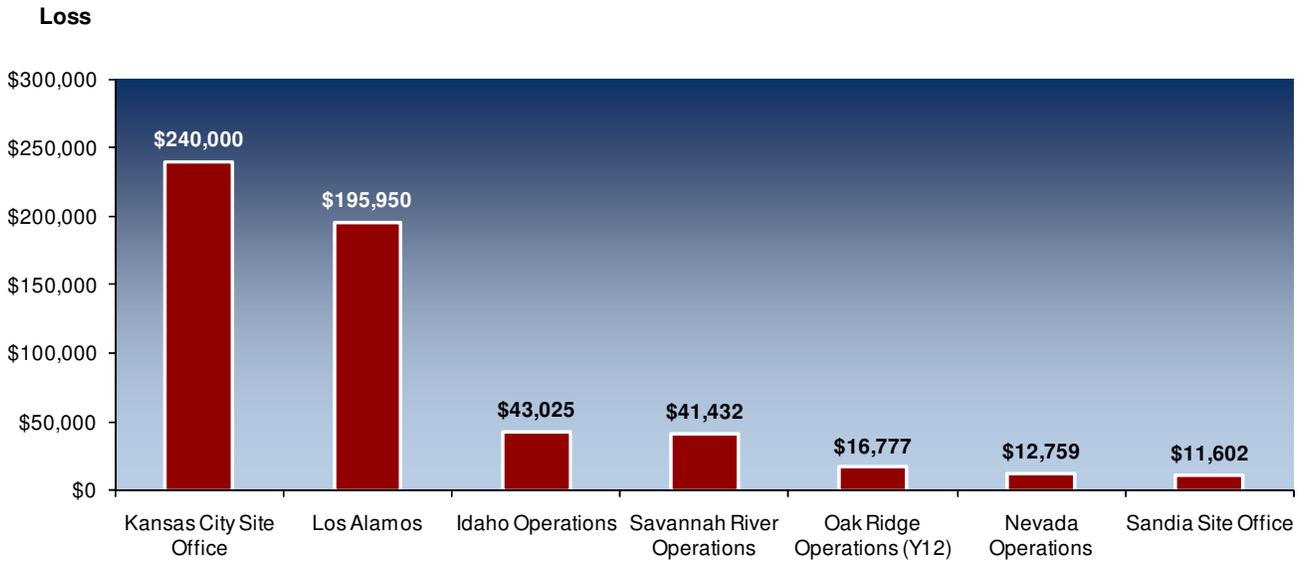
**Figure 4**  
**Fire Events**

(Number of fire events reported at the 8 sites posting greater than \$10,000 in total losses in CY2008)



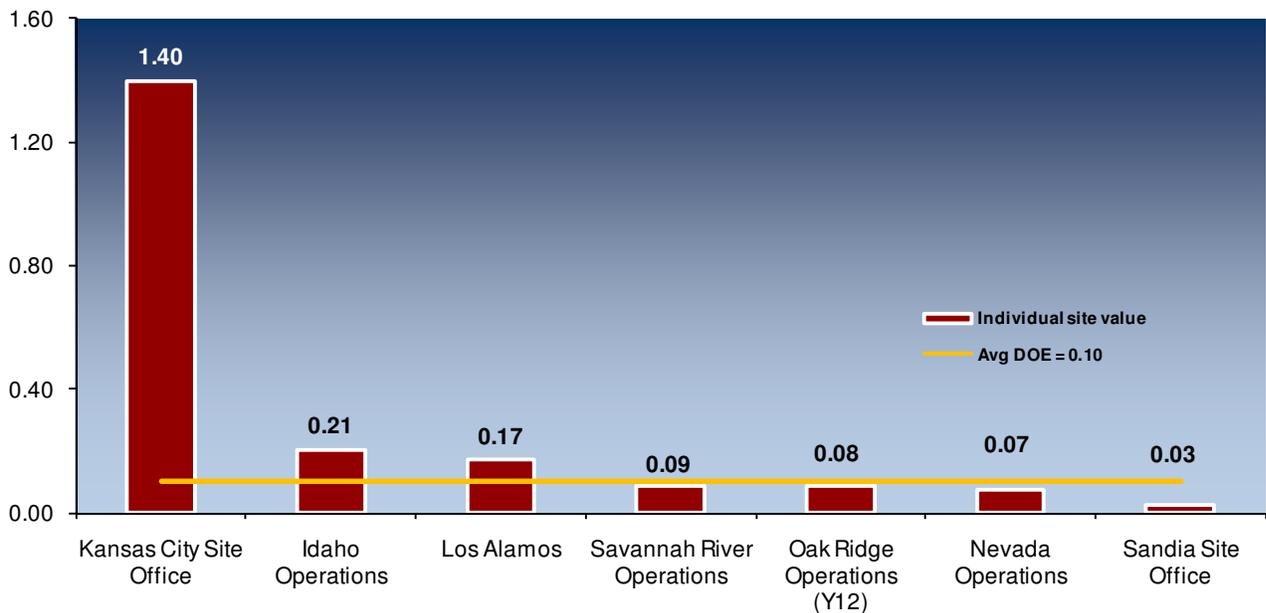
**Figure 5**  
**Fire Loss Amount**

(Total losses in CY08 for those sites posting greater than \$10,000 in total losses in CY2008)



**Figure 6**  
**Fire Loss Rate**

(Rate in cents per \$100 of valuation for those sites posting greater than \$10,000 in total losses in CY2008)



## Summary of Major Fire Damage Incidents

The following table provides a description of individual major (dollar loss greater than \$10,000 per event) DOE fire losses during the year. There were only 5 sites posting “fire events” resulting in losses greater than \$10,000 for that event. See Tables 3 through 4 for fire events involving fixed automatic fire suppression systems.

**Table 2**  
**Summary of Fire Damage Incidents**

Loss Type	Location	Description	Dollar Loss
Fire/Smoke (Building)	KCP PHQ	A fire alarm system UPS battery cabinet located in the Patrol HQ equipment room experienced an over charge or short circuit condition that resulted in the batteries overheating and burning. Fire damage was limited to the UPS cabinet, but smoke and water damage occurred to the back up fire alarm computer and other electronic equipment in the room. <b>Fire</b> was contained to cabinet of origin by the operation of one sprinkler head. The fire was extinguished by the Kansas City Fire Department.	\$224,675
Fire/Smoke (Brush)	LANL TA-39	12 acre wildland <b>fires</b> resulting from experimental gas gun containment system failure. RED FLAG wildland fire conditions existed at the time of the event. 25 lengths of 1.5" fire hose damaged. 1 pallet Class A foam concentrate expended. Personnel from FD, NPS, USFS and Santa Clara Pueblo provided fire suppression. 2 precautionary slurry aircraft drops by USFS.	\$150,000
Fire/Smoke (Building)	SRS 484-D	The SRSFD was notified by the 484-D Powerhouse Subcontractor, WSMS, that there was a smoldering <b>fire</b> in the coal bunkers on the evening of 3/12/08. The Fire Department provided support, including application of F-500 and small amounts of water at various times during the 7-day period in which the bunkers were emptied of the coal that they contained. There were no injuries.	\$26,400
Fire/Smoke (Brush)	INL Highway 20, near Auxiliary Reactor Area (ARA)	INL FD responded to a reported fire on the north side of HWY 20 near the ARA. The FD encountered a running <b>fire</b> on the north side of the highway in medium fuels of grass and brush. All four INL wildland units initiated direct attack with water tender support. BLM air and engine resources were requested and responded. The fire threatened some project structures and the 230 kV loop. Power was isolated for a period of time and the Materials and Fuels Complex (MFC) facility was evacuated. There was no damage to INL equipment or property. Final fire size was 1,419 acres.	\$25,000

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<b>Loss Type</b>	<b>Location</b>	<b>Description</b>	<b>Dollar Loss</b>
Fire/Smoke (Building)	KCP Building 1 FS-49	A heat transfer oil heater experienced a leak resulting in a small <b>fire</b> in the heater. Department evacuated and the Kansas City Fire Department was called. Fire was extinguished by KCP personnel using portable fire extinguishers. Fire damage contained to the equipment of origin.	\$15,325

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A complete listing of all CY08 fire damage incidents reported into the Fire Protection Reporting System database is shown in Appendix 1 to this report.

## Water-Based Automatic Suppression System Performance

A total of 23 incidents were reported where water-based suppression systems operated in CY08. System actuations are broken down as follows: (7) Dry-pipe, (12) Wet-pipe, (3) Deluge and (1) Pre-action. Of these, only 1 actuation was directly caused by fire (see below). Causes for the remaining system actuations are as follows: (3) design/material related, (14) weather related and (5) unspecified/other.

Water-based system activations of interest are listed in Table 3 below.

**Table 3**  
**Water-Based System Actuations**

Loss Type	Location	Description	Dollar Loss
Fire/Smoke (Building)	ORO Y12	Wet pipe sprinkler system actuation due to <b>fire</b> . WPS#1	\$5,375
Leaks, Spills, Releases	LANL TA-15-494	<b>Freeze</b> damage to wet-pipe sprinkler system piping (1" cast iron TEE fitting) resulted in water flow for 20 minutes into satellite server room. Water damage to servers reported, some recovery achieved. Improper HVAC configuration is a contributing cause that allowed freezing temperatures into room.	\$12,500
Leaks, Spills, Releases	INL CFA-625 Laboratories	Building heating system failed to operate and the fire sprinkler system <b>froze</b> . The majority of the water damage to the facility was caused by freezing of the potable and de-ionized water supply within the building. The fire sprinkler only had one frozen/broken head and an elbow.	\$4,800
Testing Failure	Sandia Nat Lab Building 9972	SNL fire alarm maintenance was performed during a semi annual test in Building 9972 which activated a second heat detector prior to allowing the first detector to reset causing the pre-action valve to open discharging water into the sprinkler piping system. Closed sprinklers are installed throughout the system keeping the water contained within the system. No damage was reported.	\$3,000
Leaks, Spills, Releases	LANL TA-3 170	Sprinkler system flow switch activation due to <b>freeze</b> , damage to sprinkler head resulted in FD response. A cracked fitting required repair, and replacement of damaged sprinkler head. Inadequate ITM and winterization cited as root cause.	\$2,000
Leaks, Spills, Releases	LANL TA-18 122	Dry pipe system suffered <b>freeze</b> damage; two drum-drip assemblies failed. Active fire alarm resulted in FD response. 3000 gal of water discharged within idle noncombustible former warehouse structure slated for D&D. Inadequate ITM to drain drum drips of collected condensate cited as a root cause.	\$1,000
Leaks, Spills, Releases	NTS Building 23-W11	Fire Dispatch received a fire alarm from Bldg 23-W11. Crews responded and found water flowing from the dry pipe sprinkler system main drain with no fire or smoke showing. Further investigation confirmed <b>no fire</b> and the system was shutdown. Cause of the activation was determined to be low air pressure which caused the clapper valve to release. The system was restored and a work order was established. No damage occurred to the building or its contents.	\$0

## **Non Water-Based Fire Suppression System Performance**

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Concerns regarding the effect of chlorinated fluorocarbons (CFCs) and Halon on the ozone layer have led to their regulation under the 1991 Clean Air Act. The Environmental Protection Agency has subsequently published rules on this regulation to include prohibiting new Halon production, establishing container labeling requirements, imposing Federal procurement restrictions, imposing significant Halon taxes, issuing requirements for the approval of alternative agents, and listing essential areas where Halon protection is considered acceptable.

DOE's current policy does not allow the installation of any new Halon systems. Field organizations have been requested to aggressively pursue alternative fire suppression agents to replace existing systems and to effectively manage expanding Halon inventories. The long-term goal is the gradual replacement of all Halon systems.

In CY08, DOE maintained 157 active Halon 1301 systems in operation containing approximately 45,331 pounds of agent. Stored Halon 1301 inventory was reported at approximately 26,372 pounds<sup>2</sup>. Operational and stored inventory amounts for the Halon 1211 were reported at 14,935 and 14,179 pounds, respectively. The numbers of active Halon 1301 systems are down 37% from the 249 systems active in CY07, while inventory is down 43% from CY07 levels of 79,463 pounds.

Only Argonne National Laboratory reported having any hand-held Halon 1211 extinguishers in CY08, while Fermi and the Nevada Test Site maintained 99% of the inventory of Halon 1211 in the Complex. A total of 3 incidents were reported at DOE where Halon 1301 or other non-water based suppression systems operated in CY08. Of these, only 1 release event was directly caused by a fire (automatic actuation not involving Halon) and no sites reported any system failures during a fire. Additionally, approximately 41 pounds<sup>3</sup> of Halon 1301 were reported to be released to the environment in non-fire related events (all 41 pounds released via recycling activities at SRS).

Non water-based system actuations of interest are listed in Table 4 on the following page.

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<sup>2</sup> Amount excludes banked inventory at the SRS — 54,117 pounds Halon 1301, 0 pounds Halon 1211. SRO reports that the Halon bank is no longer accepting Halon inventory from the sites.

<sup>3</sup> The above figure does not consider system leakage in a stable condition.

**Table 4**  
**Non Water-Based System Actuations**

Loss Type	Location	Description	Dollar Loss
Fire/Smoke (Building)	Sandia National Laboratory Building 861 Kitchen	Building evacuated, <b>fire</b> was contained to the kitchen grill, and the fire was extinguished by KAFBFD by activating the <b>wet chemical</b> suppression system.	\$3,998
Fire/Smoke (Building)	ORNL Building 8300	Summary of 42 individual events classified as <b>non-fire</b> events where capacitors inside of a modulator fail resulting in release of energy. Typical responses to failures include de-energizing the equipment and manually activating a <b>CO<sup>2</sup></b> system for cooling and equipment salvage. In most cases there is no fire and no fire is observed during the fire department response to investigate and report. One hundred pounds of CO <sup>2</sup> agent is locally released on the modulator upon receipt of an automatic alarm indicating capacitor failure remotely at the control room. This is one of several recurring events involving different modulators.	\$210,000
Leaks, Spills, Releases	NTS Building 05-13 Nevada Test Site	NTS F&R Dispatch received a call that the fire suppression system (FM-200) has activated in Building 05-13. Occupant stated that <b>no fire</b> or smoke was showing and that this was an <b>accidental discharge</b> . An investigation by the NTS F&R Fire Marshal determined that the most probable cause was the discharge of static electricity being generated by the movement of plastic packing material in close proximity to the cylinder thus firing the actuator. No damage occurred to the building or its contents. No indication of chemical type.	\$0

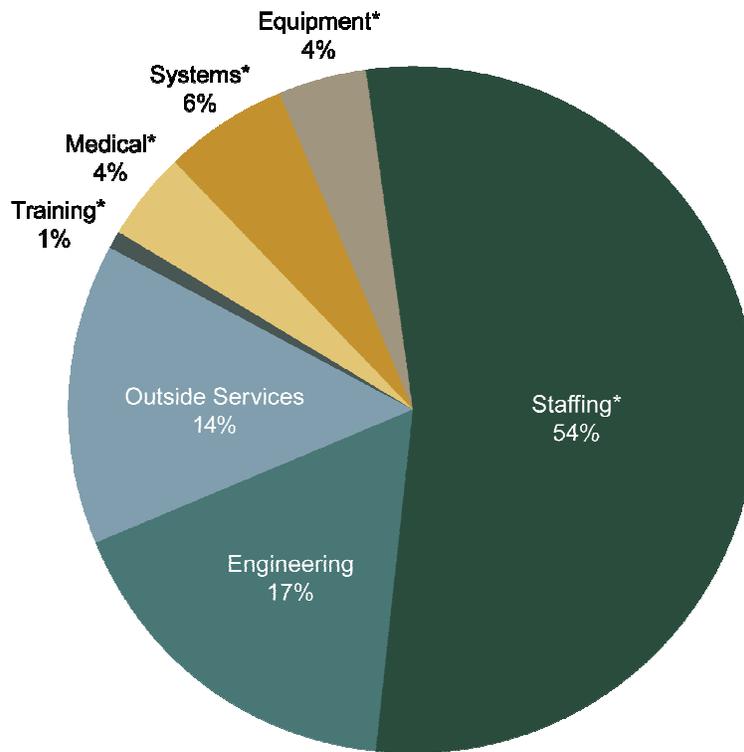
## Recurring Fire Protection Program Costs

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Yearly or recurring fire protection costs for CY08 reached \$150,213,813 for those sites reporting into the Fire Protection Program database. On a ratio of cost to replacement property value (recurring cost rate), the DOE spent approximately 24.8 cents per \$100 valuation for recurring fire protection activities at those sites.

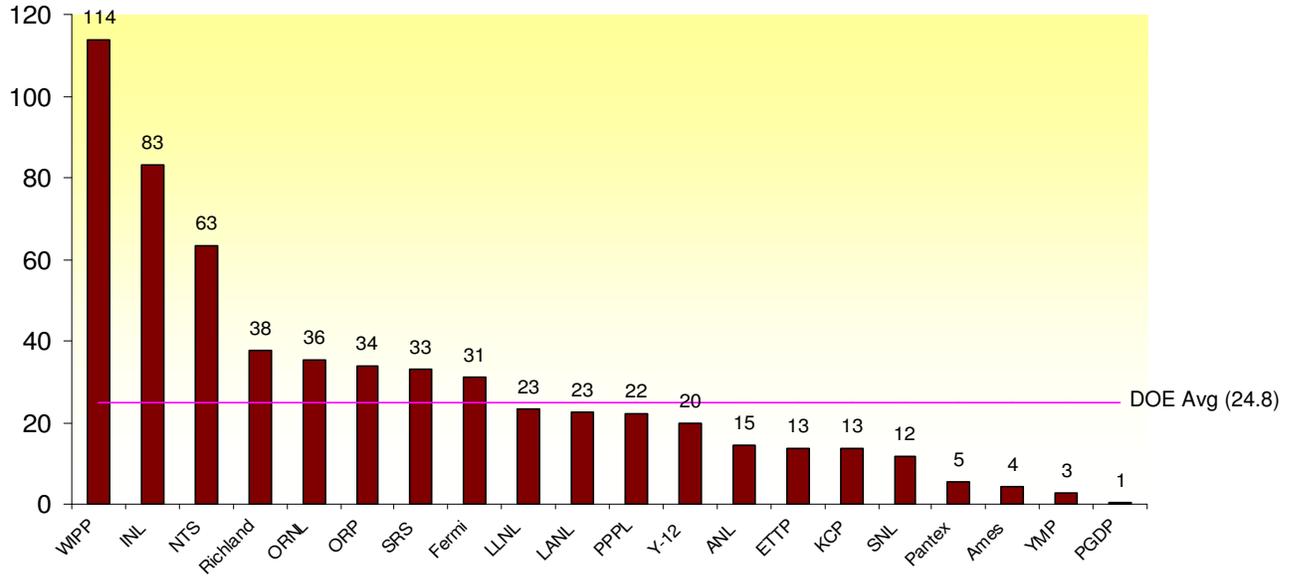
Figure 7 shows the CY08 recurring cost distribution by activity. Figure 8 lists the recurring cost rate by DOE sites. It should be noted that not all recurring cost activities were consistently reported, such as outside contracts and maintenance activities. Additionally, sites that did not report recurring costs this calendar year (such as Brookhaven National Laboratory) had their costs carried forward from the past reporting period to maintain the validity of the statistic.

**Figure 7**  
**Recurring Fire Protection Cost Distribution**



\* Fire Department Activities

**Figure 8**  
**Program Cost Rate by Site**  
(Cents per \$100 valuation)



## Fire Department Activities

### Number of Responses:

The following is a summary of fire department responses for CY08.

1. Fire	413
2. Hazardous Materials	148
3. Other Emergency	2,270
4. Other Non-Emergency	2,828
5. Medical	1,451
<b>Total</b>	<b>7,110</b>

Comparing this data to the actual type of response is difficult since sites do not report incident responses in a consistent fashion. HSS is examining the use of a standard reporting format which complies with the National Fire Protection Association's Guide 901, *Uniform Coding for Fire Protection*, which could be linked to other DOE incident reporting programs for an accurate and cost effective approach to data collection in DOE. Other options, such as folding DOE's fire data collection into State or National programs such as the National Fire Incident Reporting System, were considered, but not utilized.

### Major Equipment Purchases:

This information was not collected from the sites for CY08.

### Notable Response Descriptions, such as mutual aid responses, that are not already included in this report:

**Table 5**  
**Notable Responses**

Location	Date	Description
Hanford	2/15/2008	The Hanford Fire Department responded to a structure fire in an excess mobile office in the 200 East Area. The cause was determined to be radiant ignition of the building's wood framing that supported the HVAC supply ducting. A safety cutoff switch failed, resulting in heater coils continuing to be energized and igniting the unit's structural framing members. There was insufficient clearance between the heating unit and the wooden framing members. The unit was vacant and slated for demolition with no value.
Hanford	6/11/2008	Hanford Fire responded to a 911 call of a wildland fire located in the area of Range #5 of the Hanford Patrol Training Academy. On arrival, the fire was moving north at moderate speed and was about 15 acres in size. Cause appears to have been aerial material from the Richland Bomb Pit located in the area of the Richland ORV Park. Final size was 22 acres.
Hanford	6/29/2008	Hanford Fire responded to a wildland fire in the 200 East area at the intersection of DMF Loop and 4th Ave. Three (3) acres of sage brush and grasses burned with a possible loss of 3-4 power poles. Cause was the high winds in the 200 East area causing the power lines to fail and fall to the ground.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Hanford	8/8/2008	The Hanford Fire Department responded to a report of two wildland fires. One fire was adjacent to the Wye Barricade (1 to 2 acres) and the other was in the vicinity of the HAMMER Complex (400 to 600 acres). Both were the result of lightning strikes. The fire at the Wye Barricade was extinguished quickly while the HAMMER fire required more time and resources to extinguish.
Hanford	8/18/2008	The Hanford Fire Department responded to a two-acre wildland fire near the 100-F Area that was caused by a lightning strike. No personnel injuries occurred during the fire.
East Tennessee Technology Park-BJC	04/29/2008	A 400-watt lamp bulb was incorrectly installed in a new 250-watt Wobblelight. This new Wobblelight was subjected to a 1-hr. burn-in period prior to use. During this burn-in period, the lamp overheated and burst into flame. It was extinguished manually with a fire extinguisher. Corrective actions were taken to prevent the wrong bulb from being installed in existing and future Wobblelights.
East Tennessee Technology Park	05/14/2008	A plasma torch was being used to cut into a steel duct as part of pre-demolition activities. The torch ignited a plastic bag located inside the duct. The plastic bag was not visible until ignition, should not have been there, and had been present for many years. The firewatcher extinguished the fire and summoned the fire department, who responded.
East Tennessee Technology Park	10/27/2008	A Sawzall was being used to cut a process pipe as part of pre-demolition activities in the K-25 building. The pipe was located on a specialized valve. A small fire occurred during this operation and was extinguished by the firewatcher using a fire extinguisher. The fire was due to unknown organic material located in or on the valve.
Fermi National Accelerator Laboratory	8/6/2008	Malfunction of G-10 Diode Rectifier Stick. VESDA system activated and power was shut off to the Rectifier and fire if any stopped. No manual FD suppression. Self Extinguished when de-energized.
Idaho National Laboratory	1/2/2008	Heater housing on mobile equipment melted and filter media was smoldering upon start up of the equipment. Damage was limited to the heater and associated electrical wiring.
Idaho National Laboratory	4/2/2008	"Badger Gulch" Fire: A small fire was ignited by range operations. The fire burned in grassy fuels, an area approximately 10 ft by 50 ft and was extinguished by range personnel using extinguishers and shovels.
Idaho National Laboratory	4/17/2008	"Blast Fire #2 1, 2, and 3" Fire: Three small fires were observed and extinguished by standby wildland fire crews at the explosives test range. The first fire was initiated by range operations, involved light grass fuels northwest of the range, and burned approximately 10 ft by 35 ft. The second and third fires were initiated by range operations, involved light to heavy fuels of grass/brush approximately 200 sq ft. All three fires were extinguished by the INL FD using direct tactics.
Idaho National Laboratory	5/8/2008	"May Day 1 and 2" Fire: Two small fires were observed and extinguished by standby wildland fire crews at the explosives test range. The first fire was ignited by range operations, involved light grass fuels, and burned approximately 100 sq ft. The second fire was initiated by range operations, involved light grassy fuels, and burned approximately 500 sq ft. Both fires were extinguished by the INL FD using direct tactics.
Idaho National Laboratory	5/17/2008	Ignition of waste material in the drum packaging station was observed and immediately suppressed using staged magnesium oxide. There was no damage to equipment or property.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Idaho National Laboratory	5/19/2008	A small smoldering fire occurred in a steel container which was extinguished by the INL Fire Department. The container was partially filled with cigarette butts and cigarette packages. The container was not an authorized smoking container. There was no damage to INL equipment or property.
Idaho National Laboratory	6/30/2008	"MFC Range 6-30-08" Fire: A small fire was observed and extinguished by standby wildland fire crews at the explosives test range. The fire was ignited by range operations, involved light grassy fuels west of the range, and burned approximately 300 sq ft. The fire was extinguished by INL FD using direct tactics.
Idaho National Laboratory	7/6/2008	Facility personnel noticed a melted spot and a small amount of smoke coming from a flower pot outside WMF-676. The pot had only peat moss and soil in it and was extremely dry. Personnel poured water from a water bottle on the smoking area. A cigarette butt was noted on the surface of the flower pot.
Idaho National Laboratory	10/3/2008	Smoke was observed coming from a terminal serving the wireless barcode scanners. The INL FD extinguished the fire with a CO2 fire extinguisher and secured power to the equipment. No waste or nuclear material was involved.
Idaho National Laboratory	10/18/2008	"Mile Marker 260" Fire: The INL FD responded to a fire on the north side of HWY 20/26. The FD encountered a running fire burning in medium to heavy fuels of grass and brush. All four INL wildland fire units initiated direct attack with tender support. City of Arco and BLM also responded. Fire size was 35 acres.
Idaho National Laboratory	10/22/2008	A fire occurred due to the improper operation of a microwave oven. Foil was left in a bag while microwaving the contents, which immediately caught fire upon removal. The bag was extinguished, but damaged a carpet tile.
Idaho National Laboratory	10/29/2008	Smoke was observed coming from the horsehair brushes on the exhaust system for the in-cell box opening gantry robot (BOGR) process. The AMWTP Emergency Action Manager (EAM) classified this event as an Alert — an operational emergency where the effects remain within the AMWTP boundaries — at 1742 due to the direct observation of the operator and the potential to involve a waste container. The INL FD used portable fire extinguishers to extinguish the smoldering brushes and then removed them. There were no injuries, personnel contamination, or spread of contamination from this event, and no waste in the box actually became involved in the event. The process uses a remotely operated saw, which has a dust extract system (used as a housekeeping tool) designed to minimize the buildup of sawdust in the cell. The horsehair brushes are a consumable item that is part of the dust extract system and which are mounted in a shroud around the saw to minimize the ejection of sparks and hot material from the cutting operation.
Idaho National Laboratory	11/17/2008	Ignition of waste material was observed in the drum packaging station and immediately suppressed with staged magnesium oxide. There was no damage to equipment or property.
Kansas City Plant	9/30/2008	A heat transfer oil heater experienced a leak resulting in a small fire in the heater. Department evacuated and City of Kansas City Fire Department called. Fire was extinguished by KCP personnel using portable fire extinguishers. Fire damage contained to the equipment of origin.
Kansas City Plant	8/3/2008	A battery charger for the telephone system malfunctioned causing light smoke that was detected by the smoke detector. When power was turned off the smoke dissipated. No fire or flame. No damage to DOE equipment - telephone equipment is owned by GSA.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Los Alamos National Laboratory	2/13/2008	Natural gas seeped into buried conduit terminating within fire pump house. Upon start of the electric fire pump, an energetic event involving the natural gas seeping into the pump controller occurred; producing damage to the controller door and resulting in an impairment to the electric fire pump (one of 4 total pumps available) until repairs were made. Source of natural gas leak found and isolated.
Los Alamos National Laboratory	3/18/2008	Recycle waste bin located against electrical baseboard heater resulted in melting of the plastic bin. Adjacent trash can located against heater also melted.
Los Alamos National Laboratory	3/27/2008	Improperly programmed and operated electric furnaces within a glovebox resulted in activation of thermal detectors and closure of drop box dampers in glovebox train.
Los Alamos National Laboratory	4/3/2008	HVAC fan belt failure resulted in smoke throughout the building, causing evacuation of occupants following an E911 call. Loss limited to smoke ventilation/clean-up, fan belt replacement and loss time.
Los Alamos National Laboratory	6/11/2008	Oven fire associated with melting materials coming in contact with heating elements. Damage to oven, vent line and clean-up following discharge of ABC dry chemical portable fire extinguisher.
Los Alamos National Laboratory	8/11/2008	Restroom exhaust fan failed resulting in small fire extinguished by occupant using ABC dry chemical portable extinguisher. Transportable office structure provided with remotely-monitored heat detection only; no fire suppression. Thermal detector in room did not activate prior to occupant taking action. Clean-up costs, repair of exhaust fan.
Los Alamos National Laboratory	9/2/2008	2002 Chevrolet Astro Van (government vehicle) vandalized and burned on the interior over Labor Day weekend at off-site location parking lot. Presumed to be a total loss.
Los Alamos National Laboratory	10/22/2008	Ash/Butt receptacle fire required employee to extinguish with ABC portable dry chemical extinguisher. Not an approved smoking area, lacking reliable maintenance of the ash can. Minimal damage.
Los Alamos National Laboratory	11/5/2008	Sparking from a downed electrical line ignited adjacent brush. Fire confined to small area; fire department was dispatched and extinguished the fire. High winds cited as caused of downed power line.
Los Alamos National Laboratory	11/17/2008	Employee received a 1 <sup>st</sup> degree burn while reaching into plastic container to retrieve aerosol container. Flammable vapors ignited by static electricity discharge was likely cause. First aid for burns delivered to left wrist. Employee was wearing leather gloves.
Los Alamos National Laboratory	11/23/2008	Deflagration reported within waste drum when remotely-punctured. Force of deflagration bent the drum, broke the drum restraints. Limited initial property damage to restraints. Operations placed on-hold pending investigation. Investigation on-going into CY2009.
Los Alamos National Laboratory	12/20/2008	Fire on an electrical pole to water booster pump facility for utilities. Fire reported to self-extinguish. Booster pump and related electrical feeds to municipal utility equipment damaged requiring repair.
Nevada Test Site	11/1/2008	This fire occurred in Area 6 at the Nevada Test Site, near Cane Springs Road. Rain and lightning caused the failure of a power pole insulator. It was extinguished by NTS Fire & Rescue. Damage was limited to insulators, cross-arms and power lines.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Nevada Test Site	11/1/2008	This fire occurred in Area 5 at the Nevada Test Site, near the Nuclear Non-Proliferation Test and Evaluation Complex. Rain and lightning caused the failure of a power pole insulator. Damage was limited to insulators, cross-arms and power lines.
Nevada Test Site	11/29/2008	This fire occurred in Area 1 at the Nevada Test Site, near the U1a Complex. Failure of the power pole insulators during inclement weather created a spark resulting in a fire on top of the pole. It was extinguished by NTS Fire & Rescue. Damage was limited to insulators, cross-arms and power lines.
Oak Ridge National Laboratory-UT/Battelle	4/1/2008	A very small fire in occurred in Building 4515 lab 118 that was extinguished by the lab occupant. The fire involved 10 paper towels. The fire ignited while the technician was mixing carbon black powder and platinum with methanol in a 10-ml beaker, a procedure that the technician had performed numerous times before. When the technician mixed the carbon powder with the methanol into the beaker she turned away and then turned back seeing the mixture had ignited. The technician tried to grab the beaker with a pair of tongs but turned the beaker over onto the paper towels igniting them. The technician then retrieved water from the sink located next to the fire and extinguished the fire.
Oak Ridge National Laboratory-UT/Battelle	4/3/2008	The Fire Department responded to Building 8610, Room J355-A. Prior to their arrival the fire was extinguished by occupants with a portable fire extinguisher. The fire involved a 100 ml flask containing sodium metal (less than 1 gram of sodium). The technician was heating the sodium metal inside the flask, with a torch, when the sodium metal ignited. The flask was removed from the working hood, by the technician, and placed inside an unused hood. Then the technician extinguished the fire with a Metal X Extinguisher. After their investigation the technician found that the glass flask had a small crack in it that allowed oxygen to enter the flask causing the fire.
Oak Ridge National Laboratory-UT/Battelle	4/21/2008	ORNL Fire Department was notified on Tuesday, 4/22/2008 of a fire in shop area of Building 8600 Room DG-13 on the previous date of Monday 4/21/2008 by Fire Protection Engineer. Fire had been extinguished the previous day with no notification of the fire services. Fire was extinguished by means of a bucket of Lith-X by personnel. Fire damage contained to area of origin and equipment being utilized. Material being cut was Zirconium alloy. Equipment being used was a horizontal band-saw. Unknown cause of fire - either equipment failure or heat from material being cut. Cost of horizontal band-saw is estimated at \$1500.00.
Oak Ridge National Laboratory-UT/Battelle	6/7/2008	Fire Department received fire alarm indicating a pull box had been activated from Building 8600. Units responding emergency traffic. En-route to the fire alarm LSS office advised Commander Elkins that she received a 911 call from an employee reporting a fire on the ground floor visible from Room JG-08. Upon arrival command post was established on the Northwest side of Building 8600, Incident Command of scene assumed. Fire Department personnel prepared to support the sprinkler system and make entry with a 1 ¾ inch hand line. IC Request that a call in of off duty fire personnel be conducted by the LSS office personnel. LSS office reported to IC that an in-duct smoke detector had gone active. Captain Longworth, FPI Smith and FPI Burke (interior attack team) made entry with hose line to extinguish the fire, RIT team in place. Sprinkler system activated water motor gong sounded Entry team supported the sprinkler system in the fire extinguishment. Operations Officer reported to IC that the fire was extinguished. IC received report from LSS multiple smoke detectors activated, ORFD put on stand-by. More smoke detectors activated per LSS office. ORFD requested to respond emergency traffic to Building 8600 command post. Salvage and over haul in progress, smoke ejectors set up. ORFD on scene and ask to assist in overhaul providing a smoke ejector. Approximately 15 employees were evacuated from building.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Oak Ridge National Laboratory-UT/Battelle	08/13/2008	A Fire Department Fire Protection Inspector providing fire patrol duties in the Computer Center at Building 5600 detected a smoke odor and went to investigate. The Inspector was providing fire patrol while the smoke detection system was out of service. The Inspector discovered the odor coming from a hot work operation under the floor in the Building 5600 room E-102 Computer Center. The hot work ignited a small potato chip bag that was stuffed inside the pipe. The fire was noticed by construction personnel performing the hot work prior to the arrival of the Inspector. Construction personnel had already extinguished the burning material using a fire blanket. The material was removed from the pipe and taken to the exterior of the facility. The Fire Protection Inspector verified that the fire was extinguished and there was no fire extension. The Fire Department Officer In Charge was notified of the incident. There was no fire or smoke damage in the Computer Center.
Portsmouth Gaseous Diffusion Plant	4/10/2008	Arcing overhead electric line. No fire loss.
Portsmouth Gaseous Diffusion Plant	5/30/2008	Evacuation alarm activated. Electrical issues activated all evacuation alarms on the GCEP side of the plant site.
Portsmouth Gaseous Diffusion Plant	7/29/2008	HAZMAT response to a 55-gallon drum over pressurization event. Drum was bulging. No fire loss.
Portsmouth Gaseous Diffusion Plant	7/31/2008	Employee vehicle fire in parking lot. No damage to DOE property. No fire loss.
Sandia National Laboratory	3/17/2008	Wildland fire at base of Manzano bunkers.
Sandia National Laboratory	5/1/2008	Incident Commander (IC) 10 and IC 9 called out for assistance with Kirtland Fire department for a small brush fire just north of Tech area 3 & 5 bridge.
Sandia National Laboratory	5/17/2008	Bonding adhesive for roofing work (Building 894) caught fire during application. Fire was extinguished with a fire extinguisher. KAFBFD confirmed fire was extinguished. Cause of fire was undetermined but static electricity, involving triboelectric charging or frictional charging was considered to be the most probable source of fire ignition resulting from static accumulation by personnel working in dry weather, very low humidity and walking across exposed roofing membranes (e.g., unfaced polyiso insulation) without properly bonding and grounding the adhesive roller to the outside the pail to dissipate and equalize the static potential.
Sandia National Laboratory	5/21/2008	SNL and KAFB Emergency responders were dispatched to a Wildland fire, East of Building 9950. High Voltage personnel were able to isolate the power line that was down and additional power lines were isolated that were in the path of the fire. Logistics responded with water tankers and a grader. Approximately 20-30 acres were burned. The cause of the fire was determined to be a broken cross arm on a distribution feeder, East of Building 9950.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Sandia National Laboratory	6/9/2008	Sandia Incident Commanders (IC) responded with Kirtland Fire Department to a brush fire in the EOD range.
Sandia National Laboratory	6/11/2008	IC 10 called out to Coyote Canyon road for a mutual aid response with Kirtland Fire Department of a wildland fire in area.
Sandia National Laboratory	6/11/2008	Sandia emergency personnel responded with Kirtland Fire Department to a brush fire at the EOC range.
Sandia National Laboratory	6/12/2008	Responded to Building 861 involving a fire in the kitchen. Building evacuated, fire was contained to kitchen grill, fire was extinguished by KAFB-FD, no injuries or illnesses were reported. Cause of the fire was from excessive use of cooking sauce spilling onto the oven burners.
Sandia National Laboratory	7/5/2008	Brush Fire—north of CTA—west of Manzano fence line. The brush fire area was one half mile north of the CTA area dog kennels and approximately one half mile west of the Manzano fence line. Upon arrival of the FD and IC, the fire was extinguished. Approximately ¼ – ½ acre was burned and no Sandia Property or buildings were involved in this fire.
Sandia National Laboratory	9/13/2008	Response 2 and Kirtland Fire Department called out to Building 880 aisle by penthouse area for an electric motor fire on water pump in the mechanical room. Caller obtained fire extinguisher and put out the fire prior to KAFBFD arrival. Cause of fire was overheated bearings.
Sandia National Laboratory	10/22/2008	Sandia IC, Kirtland fire, and Albuquerque responded to a car fire across the street from the IPOC building.
Sandia National Laboratory	11/25/2008	Low Order Boiler Explosion, Building 857B. Make: Lochinvar and Model#: PBN-1300-M-9. Accident was related to over pressurization of gas in the unit.
Sandia National Laboratory	12/18/2008	SNL security and KAFBFD responded to a smoke alarm in Building 6530. Operating personnel called to advise that an electrical component began smoking setting off a fire alarm. Cause of fire was determined to be an arc between two 100 ohm resistors.
Savannah River Site	1/6/2008	Dispatch notified SRSFD personnel of an activated detector in the 730-1B penthouse. Upon arrival, it was discovered that the electric fan motor on the HVAC unit had evidence of burnt material inside. There was a strong burn scent in the penthouse area and the detector that activated was above the HVAC unit. There were no injuries.
Savannah River Site	1/20/2008	SRSFD personnel were dispatched to Building 233-H, Room 28 to a call-in notification of a smell of smoke. A power supply for the Process Controls module shorted out and caused a smoke smell. Redundant controls took over and no production was lost or jeopardized. After de-energizing the cabinet, the situation subsided and normal ventilation cleared the area. There were no injuries.
Savannah River Site	2/27/2008	All stations were dispatched to 221-S, 1st Level for a report of smoke coming from an Electromechanical Manipulator Cabinet #24. Upon arrival, SRSFD personnel determined that the smoke had ceased. A strong electrical odor was present in the area around the cabinet. The thermal imaging camera was used and an area with temperatures around 130 degrees F was located on the transformers. A brown liquid had leaked from the bottom side of the transformer on the floor beneath the cabinet. There were no injuries.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Savannah River Site	3/8/2008	SRSFD personnel were dispatched to a grass fire at Old Rd. 8 and F Rd. Upon arrival, it was determined that a large oak tree had fallen across a 13.8 kV line that feed the RR Classification Yard and one leg (wire) was snapped and on the ground arcing. The arcing caused 2–3 acres of spot fires which were extinguished by SRSFD personnel with the assistance of USFS responders. The downed lines blocked F-Road for several hours until the high line group de-energized the line and removed it from the road. There was one minor scratch received by a SRSFD officer, which was treated by Medical.
Savannah River Site	3/12/2008	The SRSFD was notified by the 484-D Powerhouse Subcontractor, WSMS, that there was a smoldering fire in the coal bunkers. The Fire Department provided support, including application of F-500 and small amounts of water at various times during the 7-day period in which the bunkers were emptied of the coal that they contained. There were no injuries.
Savannah River Site	3/25/2008	Dispatch notified SRSFD personnel of an activated pull station in Building 731-1N. Upon arrival the Incident Commander met with the Incident Scene Coordinator who stated they had smoke in the building coming from the lunchroom. Fire fighters went in to investigate and found the vending (sandwich) machine had a bad transformer that had been smoking. The unit was de-energized and moved away from the wall. There were no injuries.
Savannah River Site	3/26/2008	SRSFD personnel were dispatched to a call-in notification of a fire near Building 221-228H. Unit arrived and found a pallet with cardboard and a lead blanket on it. A small amount of cardboard had caught fire and was extinguished by a BSRI employee using a 16 oz. bottle of water. Also, the lead blanket had an area approximately 3 x 4 melted on it. Although this area was not designated for smoking, numerous cigarette butts were found on the ground near the pallet. It is suspected that a cigarette butt caught the cardboard on fire and melted the lead blanket. There were no injuries.
Savannah River Site	4/10/2008	SRSFD personnel were dispatched to Building 717-K to investigate a smoke and/or fire. Upon arrival, it was discovered that the facility personnel had extinguished the fire using a fire extinguisher. There was no further action on the part of the SRSFD. There were no injuries.
Savannah River Site	5/12/2008	SRSFD personnel were dispatched to a call-in notification of a smoking door at Building 704-55H. Upon arrival, responders found a door smoking on the east side of the building. A hose line was pulled from Engine #1. The metal siding was removed from the door and water was used to extinguish the wood that was burning inside the door. The facility was checked for extension none found. Smoke was removed from the Shop Area using building fans in the shop. The door was removed and had significant rust build-up on the bottom of the door and the wood inside had decomposed like dust. There were no injuries.
Savannah River Site	6/3/2008	SRSFD personnel were dispatched to a call-in notification of a truckster on fire inside L-Gate of HTF. Upon arrival, responders found the unit smoking with no apparent fire involvement. Personnel had abandoned the vehicle and made notification. There were no extinguishers or water used. The only action taken by the SRSFD was to disconnect the battery. There were no injuries.
Savannah River Site	6/7/2008	WSI Helicopter support located a small, slow-moving fire just off of Craig Pond Road. Forestry #1 with 2 personnel was sent to investigate and extinguish as appropriate. Upon arrival, the SRSFD crew found approximately 5 acres that had burned with approximately 1.5 acres still burning. USFS was contacted to provide a crew to place a perimeter link break around the area. F-1 crew remained on-scene until this was accomplished. No water was used on hot spots due to inaccessibility. Fire appears to have begun from a nearby controlled burn that had spread through underground vegetation. There were no injuries.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Savannah River Site	6/8/2008	The WSI Helicopter reported a small, slow-moving fire just off Skinface Rd. near Skinface Pond to Dispatch. The fire was a re-burn of a controlled burn on May 15. The SRSFD extinguished several snags using Forestry #1 and USFS was notified to assess the situation. The SRSFD left the scene since the fire was contained. There were no injuries.
Savannah River Site	6/12/2008	SRSFD personnel were dispatched to an after-the-fact notification of a fire that occurred in Building 221-S, Mezzanine Level in Sample Cells 1 & 2. After investigation, the most likely apparent cause is ignition of a plastic waste bag from an energized light cable LEMO connector with missing/frayed insulation at the cable-LEMO connector junction. The cable was placed on the waste bag during housekeeping activities during the previous shift. The two bare interior wires came in close proximity to each other and caused an overheating condition that eventually ignited the plastic bag and its contents. There were no injuries.
Savannah River Site	6/19/2008	SRSFD personnel were dispatched to 717-A for a smell of smoke after Dispatch received telephone call. Upon arrival, responders found facility occupants evacuated. A meeting with the facility representative revealed that all power for HVAC units on the south side of the building had been de-energized. Fire fighters search above false ceilings and on the roof for the source of the smell. Finally, a 24-volt transformer within the HVAC system at Room 130 was discovered to have overheated after a set of relay contacts had seized closed on the associated circuit board. There were no injuries.
Savannah River Site	6/19/2008	SRSFD personnel received an after-the-fact notification of a fire at the CMP Pit Area. The fire was discovered by SGCP personnel and the cause is unknown. The fire occurred sometimes between the afternoon of 06/17/08 and the afternoon of 06/19/08. The slow-burning fire was confined to surrounding ground vegetation. Area burnt is approximately 4 x 4. Lightning had occurred in the area according to computer information but no above ground evidence indicates a strike in the immediate area. There were no injuries.
Savannah River Site	6/28/2008	SRSFD personnel were dispatched to a call-in notification of a fire on top of the 784-A power house. A coal overflow of ~2 cubic yards had stood for some time and apparently spontaneously ignited within the pile. Ladder #1 was used to extinguish the smoldering fire and clean the remaining coal off the roof of the structure. Approximately 10,000 gallons of water was used for the entire operation (much of it for post fire clearing/cleaning of the structure). There were no injuries.
Savannah River Site	7/6/2008	SRSFD personnel were sent to an after-the-fact notification to investigate a small low-voltage electrical event that occurred in a relay cabinet in Building 241-11H. The electrical relay cabinet which contained a vamp evaporator alarm relay was de-energized and the fire self-extinguished. There were no injuries.
Savannah River Site	7/7/2008	SRSFD personnel were dispatched to a call-in notification of a power pole that had snapped off and the top of the pole was on fire on Burma Road. The fire was put out with the E-1 deck gun using approximately 1000 gallons of water. The power was turned off. The fire was caused by an insulator failure on the pole. There were no injuries.
Savannah River Site	7/10/2008	SRSFD personnel were dispatched to a call-in notification of a fire at the Letec pond at the Three Rivers Landfill. An employee was refilling the fuel tank on a mud pump when the gas spilled onto a hot surface and ignited the pour spout of the plastic fuel can. The employee tossed the burning can behind him which, in turn, ignited the grass on the hill. A privately owned truck was parked close to where the fuel can landed and fire spread under the truck and ignited the engine compartment. Four 5-lb. fire extinguishers were used by facility personnel to extinguish fire. There were no injuries and no loss to DOE.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Savannah River Site	7/15/2008	SRSFD personnel were notified of an after-the-fact call-in fire in the 234-H facility. Material was being relocated from an inert hood into a fresh air supplied hood. Material had pyrophoric flakes attached and they flashed when introduced to the fresh air. Metal-X powder, which was in a container within the hood, was used to extinguish the fire. There were no injuries, dollar loss or loss of production. In addition, there were no further actions taken on the part of the SRSFD.
Savannah River Site	8/7/2008	SRSFD personnel were dispatched to an after-the-fact notification of two small grass fires that were started by the cutting/grinding of rebar in J-Area. The fires were extinguished by the fire watch who extinguished the fires using 2 portable fire extinguishers. Forestry #1 responded to verify extinguishment and to obtain a fire report. There were no injuries.
Savannah River Site	8/25/2008	The SUD Dispatcher reported that an employee out in USFS bringing up power saw smoke coming from a generator located behind Building 760-1G. The employee investigated and the smoke had dissipated. He never saw fire. The SRSFD was called to investigate an after-the-fact notification and found an electrical disconnect tripped. The plastic cover on the block heater had melted slightly. USFS locked and tagged the generator out-of service until Maintenance could check the unit out. There were no injuries.
Savannah River Site	9/8/2008	SRSFD personnel were dispatched to a call-in alarm of a fire at Building 740-7A. Upon arrival, smoke was still visible and the SRSFD de-energized the power to the facility. It was determined that an exhaust fan in the Women's room had burned and was dropping flaming products onto the floor. An employee had extinguished the fire with a portable extinguisher. The damage was confined to the fan, a ceiling tile, and one sheet of flooring. There were no injuries.
Savannah River Site	9/10/2008	SRSFD personnel were dispatched to the Three Rivers Landfill to a call-in notification of a private vehicle fire involving 2 large pieces of heavy equipment (a Wildcat Trommel Screen Chipper and a John Deere Loader). In addition, 30 tons of wood chips were burning at the landfill. Mutual aid with Jackson Fire Department was called for water. An estimated 8000 gallons of water were shuttled from B-Area. Landfill personnel used a bulldozer and track-hoe to spread wood chips and make a fire break. Apparently, the chipper generates a lot of friction and was responsible for starting the fire. There were no injuries and no costs incurred. No DOE equipment was lost
Savannah River Site	9/29/2008	SRSFD units were dispatched to a call-in notification of a private vehicle fire at mile marker #6 on Highway #125. Unit 90 was first on-scene and reported that vehicle was totally involved. All occupants were safely out of the vehicle. Other SRSFD units arrived on-scene and began extinguishment. Approximately 500 gallons of water were used. The cause of the fire appears to be a fuel line leak in proximity to the exhaust pipe. The roadway was cleared and the scene released to WSI. There were no injuries of any type. No loss to DOE.
Savannah River Site	10/24/2008	SRSFD personnel were dispatched to a call-in private vehicle accident on Hwy. #125. A car had hydroplaned off the road and hit a tree. Gasoline ignited under the hood. Upon arrival, SRSFD personnel used approximately 600 gallons of water to extinguish the fire. The one occupant of the vehicle refused transport. There were no injuries.
Savannah River Site	11/8/2008	RSFD personnel were dispatched to a private vehicle fire on Hwy. #125 at Mile Marker 8.5 & the Pecan Gate. A propane charge refrigerator in a camper overheated and caught fire. The owner attempted to extinguish the fire with a 2.5-lb. extinguisher to no avail. Upon arrival, the SRSFD found the camper fully involved. The blaze was extinguished using approximately 500-gallons of water from Engine #1. There were no injuries.

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<b>Location</b>	<b>Date</b>	<b>Description</b>
Savannah River Site	11/27/2008	Dispatch received an after-the-fact notification, which was passed on to the SRSFD, of a fire that occurred at Building 484-D. The LP-3 Turbine on the 2nd floor had spewed oil from the oil reservoir onto the steam header causing a small fire to flare up. A site employee used a 10-lb. portable fire extinguisher to put out the fire. There were no injuries.
Savannah River Site	12/2/2008	SRSFD personnel were dispatched to an after-the-fact notification of smoke and/or fire at Building 701-1K. Building personnel had used a fire extinguisher to extinguish the fire. There were no injuries.
Y-12	2/14/2008	Leak in the hose connection of an outdoor propane heater. Propane ignited by heater element.
Y-12	2/20/2008	Loss of cooling water resulted in ignition of plastic material used to contain cooling water.
Y-12	5/20/2008	Cigarette butt disposal can caught on fire.
Y-12	6/9/2008	Electrical failure caused a grass fire.
Y-12	8/4/2008	Excess foam material mixed together and expanded beyond the drum volume which caused the exothermic reaction to overheat resulting in spontaneous ignition of the material.
Y-12	9/23/2008	Fugitive garbage fell onto engine's exhaust system catching fire.

## **Conclusions**

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DOE experienced no significant facility damage, fatalities, or major injuries from fire in CY08. The Annual Summary reporting process has recently been automated to streamline data collection and provide a more thorough review of DOE Reporting Element activities. It is now possible to view all Annual Summary Reporting Element responses since 1991 at the Site, Operations, Lead Program Secretarial Office and Headquarters levels, as well as reference other DOE reporting activities such as ORPS. A copy of the latest version of this application can be obtained at the following internet address: <http://www.hss.energy.gov/nuclearsafety/ns/fire/fpdb.html>.

Access to this system can be obtained by contacting Larry McCabe via telephone at 301-903-6732 or via email at [Larry.McCabe@hq.doe.gov](mailto:Larry.McCabe@hq.doe.gov).

**Appendix 1 - Listing of all Fire Damage Incidents as Reported into the Fire Protection Reporting System Database for CY08**

Site	Loss Type	Location	Description	Dollar Loss
Kansas City Plant	Fire/Smoke (Building)	KCP PHQ	The KCP fire alarm system UPS battery cabinet located in the Patrol HQ equipment room experienced an over charge or short circuit condition that resulted in the batteries overheating and burning. Fire damage was limited to the to UPS cabinet. Smoke and water damage to the back up fire alarm computer and other electronic equipment in the room. Fire was contained to cabinet of origin by the operation of one sprinkler head. Fire extinguished by City of Kansas City Fire Department.	\$224,675
Los Alamos National Laboratory	Fire/Smoke (Brush)	TA-39	12 acre wildland fire resulting from experimental gas gun containment system failure. RED FLAG wildland fire conditions existed at the time of the event. 25 lengths 1.5" fire hose damaged. 1 pallet Class A foam concentrate expended. Personnel from FD, NPS, USFS and Santa Clara Pueblo provided fire suppression. 2 precautionary slurry aircraft drops by USFS delivered.	\$150,000
Savannah River Site	Fire/Smoke (Building)	484-D	The SRSFD was notified by the 484-D Powerhouse Subcontractor, WSMS, that there was a smoldering fire in the coal bunkers on the evening of 3/12/08. The Fire Department provided support, including application of F-500 and small amounts of water at various times during the 7-day period in which the bunkers were emptied of the coal that they contained. There were no injuries. Cost SRS contracted with Haz Control Tech in Atlanta to provide F-500 fire suppressant and application equipment to extinguish the coal bunker fire. Costs incurred were \$20,000 for the Haz Control Tech contract and \$6,400 for 160 hours of Fire Department overtime for stand-by during the 7 day event. *There is no response chart in the last section of this document due to the fact that it extended over a 7-day period and involved various stand-by operations on the part of the Fire Department. The fire was not initially reported through the Dispatch Center.	\$26,400

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Site	Loss Type	Location	Description	Dollar Loss
Idaho National Laboratory	Fire/Smoke (Brush)	Highway 20 near Auxiliary Reactor Area (ARA)	"Highway 20" Fire: INL FD responded to a reported fire on the north side of HWY 20 near the ARA. The FD encountered a running fire on the north side of the highway in medium fuels of grass and brush. All four INL wildland units initiated direct attack with water tender support. BLM air and engine resources were requested and responded. The fire threatened some project structures and the 230 kV loop. Power was isolated for a period of time and the Materials and Fuels Complex (MFC) facility evacuated. There was no damage to INL equipment or property. Final fire size was 1,419 acres.	\$25,000
Kansas City Plant	Fire/Smoke (Building)	Building 1 FS-49	A heat transfer oil heater experienced a leak resulting in a small fire in the heater. Department evacuated and City of Kansas City Fire Department called. Fire was extinguished by KCP personnel using portable fire extinguishers. Fire damage contained to the equipment of origin.	\$15,325
Los Alamos National Laboratory	Leaks, Spills, Releases	TA-15-494	Freeze damage to wet-pipe sprinkler system piping (1" cast iron TEE fitting) resulted in water flow for 20 minutes into satellite server room. Water damage to servers reported, some recovery achieved. Improper HVAC configuration a contributing cause that allowed freezing temperatures into room.	\$12,500
Idaho National Laboratory	Fire/Smoke (Vehicle)	Reactor Technologies Complex D&D Area	Heater housing on mobile equipment melted and filter media was smoldering upon start up of the equipment. Damage was limited to the heater and associated electrical wiring.	\$9,500
Los Alamos National Laboratory	Fire/Smoke (Building)	TA-16	Oven fire associated with melting materials coming in contact with heating elements. Damage to oven, vent line and clean-up following discharge of ABC dry chemical portable fire extinguisher.	\$8,000
Los Alamos National Laboratory	Fire/Smoke (Other)	TA-64	Fire on an electrical pole to water booster pump facility for utilities. Fire reported to self-extinguish. Booster pump and related electrical feeds to municipal utility equipment damaged requiring repair.	\$8,000
Los Alamos National Laboratory	Fire/Smoke (Brush)	TA-33	Sparking from a downed electrical line ignited adjacent brush. Fire confined to small area; fire department was dispatched and extinguished the fire. High winds cited as caused of downed power line. Labor = \$4000 for repairs.	\$7,500
Los Alamos National Laboratory	Fire/Smoke (Other)	TA-55-4	Improperly programmed and operated electric furnaces within a glovebox resulted in activation of thermal detectors and closure of drop box dampers in glovebox train.	\$7,500

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Site	Loss Type	Location	Description	Dollar Loss
Idaho National Laboratory	Fire/Smoke (Other)	Advanced Mixed Waste Treatment Project	Smoke was observed coming from the horsehair brushes on the exhaust system for the in-cell box opening gantry robot (BOGR) process. The AMWTP Emergency Action Manager (EAM) classified this event as an Alert -an operational emergency where the effects remain within the AMWTP boundaries -at 1742 due to the direct observation of the operator and the potential to involve a waste container. The INL FD used portable fire extinguishers to extinguish the smoldering brushes and then removed them. There were no injuries, personnel contamination, or spread of contamination from this event, and no waste in the box actually became involved in the event. The process uses a remotely operated saw, which has a dust extract system (used as a housekeeping tool) designed to minimize the buildup of sawdust in the cell. The horsehair brushes are a consumable item that is part of the dust extract system and which are mounted in a shroud around the saw to minimize the ejection of sparks and hot material from the cutting operation.	\$6,000
Y-12	Fire/Smoke (Building)	9401-5	Loss of cooling water resulted in ignition of plastic material used to contain cooling water.	\$5,750
Y-12	Fire/Smoke (Building)	9720-19	Excess foam material mixed together and expanded beyond the drum volume which caused the exothermic reaction to overheat resulting in spontaneous ignition of the material.	\$5,375
Y-12	Fire/Smoke (Building)	9720-19	Wet pipe sprinkler system actuation due to fire WPS#1	\$5,375
Fermi National Accelerator Laboratory	Fire/Smoke (Other)	MI 60 Main Injector Service Building	Malfunction of G-10 Diode Rectifier Stick. VESDA system activated and power was shut off to the Rectifier and fire if any stopped. No manual FD suppression. Self Extinguished when de-energized.	\$5,000
Los Alamos National Laboratory	Fire/Smoke (Building)	TA-16	HVAC fan belt failure resulted in smoke throughout the building, causing evacuation of occupants following an E911 call. Loss limited to smoke ventilation/clean-up, fan belt replacement and loss time.	\$5,000

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Site	Loss Type	Location	Description	Dollar Loss
Oak Ridge National Laboratory- UT/Battelle	Fire/Smoke (Building)	Building 8300	<p>Fire Department received fire alarm indicating a pull box had been activated from Building 8600. Units responding emergency traffic. En-route to the fire alarm LSS office advised Commander that she received a 911 call from an employee reporting a fire on the ground floor visible from Room JG-08. Upon arrival command post was established on the Northwest side of Building 8600, Incident Command of scene assumed. Fire Department personnel prepared to support the sprinkler system and make entry with a 1¾ inch hand line. IC Request that a call in of off duty fire personnel be conducted by the LSS office personnel. LSS office reported to IC that an in-duct smoke detector had gone active. Captain and 2 FPI (interior attack team) made entry with hose line to extinguish the fire, RIT team in place. Sprinkler system activated water motor gong sounded Entry team supported the sprinkler system in the fire extinguishment. Operations Officer reported to IC that the fire was extinguished. IC received report from LSS multiple smoke detectors activated, ORFD put on stand-by. More smoke detectors activated per LSS office. ORFD requested to respond emergency traffic to Building 8600 command post. Salvage and over haul in progress, smoke ejectors set up. ORFD on scene and ask to assist in overhaul providing a smoke ejector. Approximately 15 employees were evacuated from building.</p>	\$5,000
Oak Ridge National Laboratory- UT/Battelle	Fire/Smoke (Building)	Building 8300	<p>42 recurring events classified as non-fire events where capacitors inside of a modulator fail resulting in release of energy. Typical response to failures include de-energizing the equipment and manually activating a CO2 system for cooling and equipment salvage. In most cases there is no fire and no fire is observed during the fire department response to investigate and report. One hundred pounds of CO2 agent is locally released on the modulator upon receipt of an automatic alarm indicating capacitor failure remotely at the control room. Upon arrival, Fire Department personnel found debris from the failure burning in the bottom of the modulator. Visible flame was observed. The Fire Department extinguished the remaining fire with a portable CO2 fire extinguisher.</p>	\$5,000 each event

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Site	Loss Type	Location	Description	Dollar Loss
Savannah River Site	Fire/Smoke (Building)	681-3G	SRSFD personnel were dispatched to 681-3G to call-in notification of smoke in the building. Upon arrival, it was discovered that a 2000 amp electrical bus had shorted out and the fire had self-extinguished. The cause for the short is unknown. There was no need for any additional fire fighting efforts. There were no injuries and the dollar loss estimate is \$5000.00. Note: This event occurred during 2007, but did not make it into the 2007 annual summary report.	\$5,000
Idaho National Laboratory		CFA-625 Laboratories	Building heating system failed to operate and the fire sprinkler system froze. The majority of the water damage to the facility was caused by freezing of the potable and de-ionized water supply within the building. The fire sprinkler only had one frozen/broken head and an elbow.	\$4,800
Nevada-Test Site	Fire/Smoke (Other)	Area 1 at the Nevada Test Site	This fire occurred in Area 1 at the Nevada Test Site, near the U1a Complex. Failure of the power pole insulators during inclement weather created a spark resulting in a fire on top of the pole. It was extinguished by NTS Fire & Rescue. Damage was limited to insulators, cross-arms and power lines.	\$4,253
Nevada-Test Site	Fire/Smoke (Other)	Area 5 at the Nevada Test Site	This fire occurred in Area 5 at the Nevada Test Site, near the Nuclear Non-Proliferation Test and Evaluation Complex. Rain and lightning caused the failure of a power pole insulator. Damage was limited to insulators, cross-arms and power lines.	\$4,253
Nevada-Test Site	Fire/Smoke (Other)	Area 6 Nevada Test Site	This fire occurred in Area 6 at the Nevada Test Site, near Cane Springs Road. Rain and lightning caused the failure of a power pole insulator. It was extinguished by NTS Fire & Rescue. Damage was limited to insulators, cross-arms and power lines.	\$4,253
Sandia National Laboratory	Fire/Smoke (Building)	Building 861 Kitchen	Responded to Building 861 involving a fire in the kitchen. Building evacuated, fire was contained to kitchen grill, fire was extinguished by KAFB-FD, no injuries or illnesses were reported. Cause of the fire was from excessive use of cooking sauce spilling onto the oven burners.	\$3,998
Los Alamos National Laboratory	Fire/Smoke (Vehicle)	Off-site (leased space)	2002 Chevrolet Astro Van (government vehicle) vandalized and burned on the interior over Labor Day weekend at off-site location parking lot. Presumed to be a total loss. Kelly Blue Book value "Good" = \$3,300 for 60,000 miles.	\$3,500

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Site	Loss Type	Location	Description	Dollar Loss
Los Alamos National Laboratory	Fire/Smoke (Building)	TA-55-10	Natural gas seeped into buried conduit terminating within fire pump house. Upon start of the electric fire pump, an energetic event involving the natural gas seeping into the pump controller occurred, producing damage to the controller door and resulting in an impairment to the electric fire pump (one of 4 total pumps available) until repairs were made. Source of natural gas leak found and isolated.	\$3,000
Sandia National Laboratory		Building 9972	On October 20, 2008 at approximately 11:00 am SNL fire alarm maintenance was performing a semi annual test in Building 9972 and activated a second heat detector prior to allowing the first detector to reset causing the pre-action valve to open discharging water into the sprinkler piping system. Closed sprinklers are installed throughout the system keeping the water contained within the system. No damage was reported. Approximately 60 man hours was required to return the system to service.	\$3,000
Savannah River Site	Fire/Smoke (Building)	221-S Mezzanine Level Sample Cells	SRSFD personnel were dispatched to an after-the-fact notification of a fire that occurred in 221-S, Mezzanine Level in Sample Cells 1 & 2. After investigation, the most likely apparent cause is ignition of a plastic waste bag from an energized light cable LEMO connector with missing/frayed insulation at the cable-LEMO connector junction. The cable was placed on the waste bag during housekeeping activities during the previous shift. The two bare interior wires came in close proximity to each other and caused an overheating condition that eventually ignited the plastic bag and its contents. There were no injuries and the dollar loss estimate is \$2364.00.	\$2,364
Sandia National Laboratory	Fire/Smoke (Other)	Building 880	Response 2 and Kirtland Fire Department called out to Building 880 aisle by penthouse area for an electric motor fire on water pump in the mechanical room. Caller obtained fire extinguisher and put out the fire prior to KAFBFD arrival. Cause of fire was overheated bearings.	\$2,006
Idaho National Laboratory	Fire/Smoke (Other)	Advanced Mixed Waste Treatment Project, WMF-634	Smoke was observed coming from a terminal serving the wireless barcode scanners. The INL FD extinguished the fire with a CO2 fire extinguisher and secured power to the equipment. No waste or nuclear material was involved.	\$2,000

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Site	Loss Type	Location	Description	Dollar Loss
Los Alamos National Laboratory	Fire/Smoke (Building)	TA-3-1887	Restroom exhaust fan failed resulting in small fire extinguished by occupant using ABC dry chemical portable extinguisher. Transportable office structure provided with remotely-monitored heat detection only; no fire suppression. Thermal detector in room did not activate prior to occupant taking action. Clean-up costs, repair of exhaust fan.	\$2,000
Los Alamos National Laboratory	Leaks, Spills, Releases	TA-3-170	Sprinkler system flow switch activation due to freeze damage to sprinkler head resulting in FD response. Cracked fitting require repair, replace damaged sprinkler head. Inadequate ITM and winterization cited as root cause.	\$2,000
Savannah River Site	Fire/Smoke (Building)	704-55H	SRSFD personnel were dispatched to a call-in notification of a smoking door at 704-55H. Upon arrival, responders found a door smoking on the east side of the building. A hose line was pulled from Engine #1. The metal siding was removed from the door and water was used to extinguish the wood that was burning inside the door. The facility was checked for extension and none found. Smoke was removed from the Shop Area using building fans in the shop. The door was removed and had significant rust build-up on the bottom of the door and the wood inside had decomposed like dust. There were no injuries and the cost incurred is \$2000.00.	\$2,000
Savannah River Site	Fire/Smoke (Other)	Burma Road	SRSFD personnel were dispatched to a call-in notification of a power pole that had snapped off and the top of the pole was on fire on Burma Rd. The fire was put out with the E-1 deck gun using approximately 1000 gallons of water. The power was turned off. The fire was caused by an insulator failure on the pole. There were no injuries and the dollar loss estimate is \$2000.00.	\$2,000
Oak Ridge National Laboratory-UT/Battelle	Fire/Smoke (Building)	Building 8600	ORNL Fire Department was notified on Tuesday, 4/22/2008 of a fire in shop area of Building 8600 Room DG-13 on the previous date of Monday 4/21/2008 by Fire Protection Engineer. Fire had been extinguished the previous day with no notification of the fire services. Fire was extinguished by means of a bucket of Lith-X by personnel. Fire damage contained to area of origin and equipment being utilized. Material being cut was Zirconium alloy. Equipment being used was a horizontal band-saw. Unknown cause of fire - either equipment failure or heat from material being cut. Cost of horizontal band-saw is estimated at \$1500.00.	\$1,500

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Site	Loss Type	Location	Description	Dollar Loss
Sandia National Laboratory	Fire/Smoke (Building)	Building 894 Roof	Bonding adhesive for roofing work (Building 894) caught fire during application. Fire was extinguished with a fire extinguisher. KAFBFD confirmed fire was extinguished. Cause of fire was undetermined but static electricity, involving triboelectric charging or frictional charging was considered to be the most probable source of fire ignition resulting from static accumulation by personnel working in dry weather, very low humidity and walking across exposed roofing membranes (e.g., unfaced polyiso insulation) without properly bonding and grounding the adhesive roller to the outside the pail to dissipate and equalize the static potential.	\$1,500
Los Alamos National Laboratory	Leaks, Spills, Releases	TA-18-122	Dry pipe system suffered freeze damage; two drum-drip assemblies failed. Active fire alarm resulted in FD response. 3000 gal of water discharged within idle noncombustible former warehouse structure slated for D&D. Inadequate ITM to drain drum drips of collected condensate cited as a root cause.	\$1,000
Oak Ridge National Laboratory-UT/Battelle	Fire/Smoke (Other)	Building 5600	Received fire alarm, 5600 water flow, from riser one perimeter. Responded emergency response in rescue, medic 2, and engine one. UOA Operator 21 established 5600 command on the south West corner on 5600 across from 4500 N. Operator 22 and two FPIs entered building at the South West door and immediately found water flowing from a sprinkler head that had been broke off. No fire or smoke conditions ever noted. FPI Bethea shut water off at riser one only which shut water flow to that sprinkler head. Sprinkler head was sheared off by electrical construction workers moving equipment down the South hallway.	\$1,000
Savannah River Site	Fire/Smoke (Building)	740-7A	SRSFD personnel were dispatched to a call-in alarm of a fire at 740-7A. Upon arrival, smoke was still visible and the SRSFD de-energized the power to the facility. It was determined that an exhaust fan in the Women's room had burned and was dropping flaming products onto the floor. An employee had extinguished the fire with a portable extinguisher. The damage was confined to the fan, a ceiling tile, and one sheet of flooring. There were no injuries.	\$700
Savannah River Site	Fire/Smoke (Vehicle)	Inside L-gate at H Tank Farm	SRSFD personnel were dispatched to a call-in notification of a truckster on fire inside L-Gate of HTF. Upon arrival, responders found the unit smoking with no apparent fire involvement. Personnel had abandoned the vehicle and made notification. There were no extinguishers or water used. The only action taken by the SRSFD was to disconnect the battery. There were no injuries.	\$700

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Site	Loss Type	Location	Description	Dollar Loss
Idaho National Laboratory	Fire/Smoke (Other)	Advanced Mixed Waste Treatment Project, WMF-676	Facility personnel noticed a melted spot and a small amount of smoke coming from a flower pot outside WMF-676. The pot had only peat moss and soil in it and was extremely dry. Personnel poured water from a water bottle on the smoking area. A cigarette butt was noted on the surface of the flower pot.	\$500
Los Alamos National Laboratory	Fire/Smoke (Building)	TA-3-40 (outside)	Ash/Butt receptacle fire required employee to extinguish with ABC portable dry chemical extinguisher. Not an approved smoking area, lacking reliable maintenance of the ash can. Minimal damage.	\$500
Los Alamos National Laboratory	Fire/Smoke (Building)	TA-54-33	Deflagration reported within waste drum when remotely-punctured. Force of deflagration bent the drum, broke the drum restraints. Limited initial property damage to restraints. Operations placed on-hold pending investigation. Investigation on-going into CY2009. Total loss estimate TBD.	\$500
Savannah River Site	Fire/Smoke (Building)	241-11H	SRSFD personnel were sent to an after-the-fact notification to investigate a small low-voltage electrical event that occurred in a relay cabinet in Building 241-11H. The electrical relay cabinet which contained a vamp evaporator alarm relay was de-energized and the fire self-extinguished. There were no injuries.	\$500
Savannah River Site	Fire/Smoke (Building)	233-H room 28	SRSFD personnel were dispatched to 233-H, Room 28 to a call-in notification of a smell of smoke. A power supply for the Process Controls module shorted out and caused a smoke smell. Redundant controls took over and no production was lost or jeopardized. After de-energizing the cabinet, the situation subsided and normal ventilation cleared the area. There were no injuries.	\$500
Savannah River Site	Fire/Smoke (Building)	221-S	All stations were dispatched to 221-S, 1st Level for a report of smoke coming from an Electromechanical Manipulator Cabinet #24. Upon arrival, SRSFD personnel determined that the smoke had ceased. A strong electrical odor was present in the area around the cabinet. The thermal imaging camera was used and an area with temperatures around 130 degrees F was located on the transformers. A brown liquid had leaked from the bottom side of the transformer on the floor beneath the cabinet. There were no injuries.	\$500

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Site	Loss Type	Location	Description	Dollar Loss
Savannah River Site	Fire/Smoke (Building)	730-1B	Dispatch notified SRSFD personnel of an activated detector in the 730-1B penthouse. Upon arrival, it was discovered that the electric fan motor on the HVAC unit had evidence of burnt material inside. There was a strong burn scent in the penthouse area and the detector that activated was above the HVAC unit. There were no injuries.	\$304
Los Alamos National Laboratory	Fire/Smoke (Other)	TA-54	Employee received a 1st degree burn while reaching into plastic container to retrieve aerosol container. Flammable vapors ignited by static electricity discharge was likely cause. First aid for burns delivered to left wrist. Employee was wearing leather gloves.	\$250
Savannah River Site	Fire/Smoke (Building)	717-K	SRSFD personnel were dispatched to 717-K to investigate a smoke odor fire. Upon arrival, it was discovered that the facility personnel had extinguished the fire using a fire extinguisher. There was no further action on the part of the SRSFD. There were no injuries.	\$234
Los Alamos National Laboratory	Fire/Smoke (Building)	TA-54-34	Recycle waste bin located against electrical baseboard heater resulted in melting of the plastic bin. Adjacent trash can located against heater also melted.	\$200
Oak Ridge National Laboratory- UT/Battelle	Fire/Smoke (Other)	Building 3034	Dry pipe sprinkler system activated after an auxiliary drain (drum drip) froze and the fitting cracked. Air pressure was relieved from the system through the cracked fitting. The system actuated and discharged water through the cracked fitting.	\$200
Y-12	Fire/Smoke (Other)	9701-6	Leak in the hose connection of an outdoor propane heater. Propane ignited by heater element.	\$176
Savannah River Site	Fire/Smoke (Other)	Near 221-228H	SRSFD personnel were dispatched to a call-in notification of a fire near 221-228H. Unit arrived and found a pallet with cardboard and a lead blanket on it. A small amount of cardboard had caught fire and was extinguished by a BSRI employee using a 16 oz. bottle of water. Also, the lead blanket had an area approximately 3' X 4' melted on it. Although this area was not designated for smoking, numerous cigarette butts were found on the ground near the pallet. It is suspected that a cigarette butt caught the cardboard on fire and melted the lead blanket. There were no injuries.	\$130

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Site	Loss Type	Location	Description	Dollar Loss
East Tennessee Technology Park-BJC	Fire/Smoke (Other)	K-1101	A 400-watt lamp bulb was incorrectly installed in a new 250-watt Wobblelight. This new Wobblelight was subjected to a 1-hour burn-in period prior to use. During this burn-in period, the lamp overheated and burst into flame. It was extinguished manually with a fire extinguisher. Corrective actions were taken to prevent the wrong bulb from being installed in existing and future Wobblelights.	\$100
Sandia National Laboratory	Fire/Smoke (Other)	Building 6530	SNL security and KAFBFD responded to a smoke alarm in Building 6530. Operating personnel called to advise that an electrical component began smoking, setting off a fire alarm. Cause of fire was determined to be an arc between two 100 ohm resistors.	\$100
Savannah River Site	Fire/Smoke (Building)	717-A	SRSFD personnel were dispatched to 717-A for a smell of smoke after Dispatch received telephone call. Upon arrival, responders found facility occupants evacuated. A meeting with the facility representative revealed that all power for HVAC units on the south side of the building had been de-energized. Fire fighters search above false ceilings and on the roof for the source of the smell. Finally, a 24-volt transformer within the HVAC system at Room 130 was discovered to have overheated after a set of relay contacts had seized closed on the associated circuit board. There were no injuries and the dollar loss value is \$100.00	\$100
Y-12	Fire/Smoke (Other)	9723-25	Cigarette butt disposal can caught on fire.	\$100
Idaho National Laboratory	Fire/Smoke (Building)	Idaho Falls Facilities, Willow Creek Building	The fire occurred due to the improper operation of a microwave oven. Foil was left in a bag while microwaving the contents, which immediately caught fire upon removal. The bag was extinguished, but damaged a carpet tile.	\$25

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Site	Loss Type	Location	Description	Dollar Loss
Oak Ridge National Laboratory- UT/Battelle	Fire/Smoke (Building)	Building 5600	On August 13, 2008, a Fire Department Fire Protection Inspector providing fire patrol duties in the Computer Center at Building 5600 detected a smoke odor and went to investigate. The Inspector was providing fire patrol while the smoke detection system was out of service. The Inspector discovered the odor coming from a hot work operation under the floor in the Building 5600 room E-102 Computer Center. The hot work ignited a small potato chip bag that was stuffed inside the pipe. The fire was noticed by construction personnel performing the hot work prior to the arrival of the Inspector. Construction personnel had already extinguished the burning material using a fire blanket. The material was removed from the pipe and taken to the exterior of the facility. The Fire Protection Inspector verified that the fire was extinguished and there was no fire extension. The Fire Department Officer In Charge was notified of the incident. There was no fire or smoke damage in the Computer Center.	\$10
Oak Ridge National Laboratory- UT/Battelle	Fire/Smoke (Building)	Building 8610	The Fire Department responded to Building 8610, Room J355-A. Prior to their arrival the fire was extinguished by occupants with a portable fire extinguisher. The fire involved a 100 ml flask containing sodium metal (less than 1 gram of sodium). The technician was heating the sodium metal inside the flask, with a torch, when the sodium metal ignited. The flask was removed from the working hood, by the technician, and placed inside an unused hood. Then the technician extinguished the fire with a Metal X Extinguisher. After their investigation the technician found that the glass flask had a small crack in it that allowed oxygen to enter the flask causing the fire.	\$5
Oak Ridge National Laboratory- UT/Battelle	Fire/Smoke (Building)	Building 4515	A very small fire in occurred in Building 4515 lab 118 that was extinguished by the lab occupant. The fire involved 10 paper towels. The fire ignited while the technician was mixing carbon black powder and platinum with methanol in a 10 ml beaker, a procedure that the technician had performed numerous times before. When the technician mixed the carbon powder with the methanol into the beaker she turned away and then turned back seeing the mixture had ignited. The technician tried to grab the beaker with a pair of tongs but turned the beaker over onto the paper towels igniting them. The technician then retrieved water from the sink located next to the fire and extinguished the fire.	\$1
Ames Laboratory			None	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Argonne National Laboratory			There were no fire losses in 2008.	\$0
East Tennessee Technology Park-BJC	Fire/Smoke (Other)	K-301-3 (K-25 Building)	A plasma torch was being used to cut into a steel duct as part of pre-demolition activities. The torch ignited a plastic bag located inside the duct. The plastic bag was not visible until ignition, should not have been there, and had been present for many years. The firewatcher extinguished the fire and summoned the fire department, who responded.	\$0
East Tennessee Technology Park-BJC	Fire/Smoke (Other)	K-312-1 (K-25 Building)	A Sawzall was being used to cut a process pipe as part of pre-demolition activities in the K-25 Building. The pipe was located on a specialized valve. A small fire occurred during this operation and was extinguished by the firewatcher using a fire extinguisher. The fire was due to unknown organic material located in or on the valve.	\$0
Idaho National Laboratory	Fire/Smoke (Brush)	National Security Test Range	"Badger Gulch" Fire: A small fire was ignited by range operations. The fire burned in grassy fuels, an area approximately 10 ft by 50 ft and was extinguished by range personnel using extinguishers and shovels.	\$0
Idaho National Laboratory	Fire/Smoke (Brush)	National Security Test Range	"Blast Fire #2 1, 2, and 3" Fire: Three small fires were observed and extinguished by standby wildland fire crews at the explosives test range. The first fire was initiated by range operations, involved light grass fuels northwest of the range, and burned approximately 10 ft by 35 ft. The second and third fires were initiated by range operations, involved light to heavy fuels of grass/brush approximately 200 sq ft. All three fires were extinguished by the INL FD using direct tactics.	\$0
Idaho National Laboratory	Fire/Smoke (Brush)	National Security Test Range	"May Day 1 and 2" Fire: Two small fires were observed and extinguished by standby wildland fire crews at the explosives test range. The first fire was ignited by range operations, involved light grass fuels, and burned approximately 100 sq ft. The second fire was initiated by range operations, involved light grassy fuels, and burned approximately 500 sq ft. Both fires were extinguished by the INL FD using direct tactics.	\$0
Idaho National Laboratory	Fire/Smoke (Brush)	National Security Test Range	"MFC Range 6-30-08" Fire: A small fire was observed and extinguished by standby wildland fire crews at the explosives test range. The fire was ignited by range operations, involved light grassy fuels west of the range, and burned approximately 300 sq ft. The fire was extinguished by INL FD using direct tactics.	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Idaho National Laboratory	Fire/Smoke (Brush)	Highway 20/26	"Mile Marker 260" Fire: The INL FD responded to a fire on the north side of HWY 20/26. The FD encountered a running fire burning in medium to heavy fuels of grass and brush. All four INL wildland fire units initiated direct attack with tender support. City of Arco and BLM also responded. Fire size was 35 acres.	\$0
Idaho National Laboratory	Fire/Smoke (Building)	Central Facilities Area	A small smoldering fire occurred in a steel container which was extinguished by the INL Fire Department. The container was partially filled with cigarette butts and cigarette packages. The container was not an authorized smoking container. There was no damage to INL equipment or property.	\$0
Idaho National Laboratory	Fire/Smoke (Building)	Radioactive Waste Management Complex, WMF-697	Ignition of waste material in the drum packaging station was observed and immediately suppressed using staged magnesium oxide. There was no damage to equipment or property.	\$0
Kansas City Plant	Fire/Smoke (Building)	Building 2 OA-45	A battery charger for the telephone system malfunctioned causing light smoke that was detected by the smoke detector. When power was turned off the smoke dissipated. No fire or flame. No damage to DOE equipment - telephone equipment is owned by GSA.	\$0
Nevada-Test Site	Leaks, Spills, Releases	Building 05-13 Nevada Test Site	NTS F&R Dispatch received a call that the fire suppression system (FM-200) has activated in Building 05-13. Occupant stated that no fire or smoke was showing and that this was an accidental discharge. An investigation by the NTS F&R Fire Marshal determined that the most probable cause was the discharge of static electricity being generated by the movement of plastic packing material in close proximity to the cylinder thus firing the actuator. No damage occurred to the building or its contents.	\$0
Nevada-Test Site		Building 05-13 Nevada Test Site	NTS F&R Dispatch received a call that the fire suppression system (FM-200) has activated in Building 05-13. Occupant stated that no fire or smoke was showing and that this was an accidental discharge. An investigation by the NTS F&R Fire Marshal determined that the most probable cause was the discharge of static electricity being generated by the movement of plastic packing material in close proximity to the cylinder thus firing the actuator. No damage occurred to the building or its contents.	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Nevada-Test Site	Leaks, Spills, Releases	Building 23-W11 at the Nevada Test Site	Fire Dispatch received a fire alarm from Building 23-W11. Crews responded and found water flowing from the dry pipe sprinkler system main drain with no fire or smoke showing. Further investigation confirmed no fire and the system was shutdown. Cause of the activation was determined to be low air pressure which caused the clapper valve to release. The system was restored and a work order was established. No damage occurred to the building or its contents.	\$0
Pacific Northwest National Lab			There were no fire loss events for FY2008	\$0
Portsmouth Gaseous Diffusion Plant	Fire/Smoke (Other)	X-345 Special Nuclear Storage Area	Arcing overhead electric line. No fire loss.	\$0
Portsmouth Gaseous Diffusion Plant	Fire/Smoke (Other)	X-1000 GCEP Administration Building	Evacuation alarm activated. Electrical issues activated all evacuation alarms on the GCEP side of the plant site.	\$0
Portsmouth Gaseous Diffusion Plant	Fire/Smoke (Other)	X-752 Warehouse	HAZMAT response to a 55 gallon drum over pressurization event. Drum was bulging. No fire loss.	\$0
Portsmouth Gaseous Diffusion Plant	Fire/Smoke (Other)	X-752 Warehouse	Heat detector alarm activation. No fire loss.	\$0
Portsmouth Gaseous Diffusion Plant	Fire/Smoke (Other)	X-1000 GCEP Administration Building	Inadvertent fire alarm activation. No fire loss.	\$0
Portsmouth Gaseous Diffusion Plant	Fire/Smoke (Other)	X-751 GCEP Mobile Equipment Garage	Sprinkler activation alarm. No sprinkler activated. No known cause. No fire loss.	\$0
Portsmouth Gaseous Diffusion Plant	Fire/Smoke (Other)	X-744G DOE Bulk Storage Building	Sprinkler activation alarm. No sprinkler was actuated. No known reason for alarm.	\$0
Portsmouth Gaseous Diffusion Plant	Fire/Smoke (Vehicle)	X-2207A Parking Lot	Employee vehicle fire in parking lot. No damage to DOE property. No fire loss.	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Portsmouth Gaseous Diffusion Plant			This report only covers the DOE non-leased facilities at the Portsmouth Gaseous Diffusion Plant (PORTS). There was no fire loss experience in Calendar Year (CY) 2008 at PORTS.	\$0
Portsmouth Gaseous Diffusion Plant		n/a	This report only covers the DOE non-leased facilities at the Portsmouth Gaseous Diffusion Plant (PORTS). There were no water-based suppression system actuations in CY 2008 at PORTS.	\$0
Richland Operations Office	Fire/Smoke (Brush)	Range #5, Hanford Patrol Training Academy	At 1657 hours, Hanford Fire responded to a 911 call of a wildland fire located in the area of Range #5 of the Hanford Patrol Training Academy. On arrival, the fire was moving north at moderate speed and was about 15 acres in size. Direct attack with Hanford Fire and BCFD #4 apparatus was initiated and containment was declared at 1738 hours. Mop-up operations continued until control was established at 1830 hours. Cause appears to have been aerial material from the Richland Bomb Pit located in the area of the Richland ORV Park. Final size was 22 acres.	\$0
Richland Operations Office	Fire/Smoke (Brush)	Dry Material Facility Loop and 4th Ave. / 200 East Area	At 2350 hours, Hanford Fire responded to a wildland fire in the 200 East area at the intersection of DMF Loop and 4th Ave. Initial attack occurred on the fire and containment was established at 0018 hours. Mop up of the fire continued with control of the fire declared at 0207 hrs. Three (3) acres of sage brush and grasses burned with a possible loss of 3-4 power poles. Cause was the high winds in the 200 East area causing the power lines to fail and fall to the ground.	\$0
Richland Operations Office	Fire/Smoke (Brush)	Wye Barricade and HAMMER Training Complex	On August 8, 2008, the Hanford Fire Department responded to a report of two wildland fires. One fire was adjacent to the Wye Barricade (1 to 2 acres) and the other was in the vicinity of the HAMMER Complex (400 to 600 acres). Both were the result of lightning strikes. The fire at the Wye Barricade was extinguished quickly while the HAMMER fire required more time and resources to extinguish.	\$0
Richland Operations Office	Fire/Smoke (Brush)	100-F Area	The Hanford Fire Department responded to a two-acre wildland fire near the 100-F Area that was caused by a lightning strike. No personnel injuries occurred during the fire.	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Richland Operations Office	Fire/Smoke (Building)	Mobile Office MO-384 / 200 East	The Hanford Fire Department responded to a structure fire in an excess mobile office in the 200 East Area. The cause was determined to be radiant ignition of the building's wood framing that supported the HVAC supply ducting. A safety cutoff switch failed, resulting in heater coils continuing to be energized and igniting the unit's structural framing members. There was insufficient clearance between the heating unit and the wooden framing members. The unit was vacant and slated for demolition with no value.	\$0
Richland Operations Office	Fire/Smoke (Other)	324 Building	A fire deluge system automatically activated on an electrical transformer vault. The transformer is located outside of the 324 Building in the 300 Area of the Hanford Site and was providing power to the 324 facility. Firefighters from the Hanford Fire Department responded to the alarm, found no fire, and isolated the deluge system. The 324 facility automatically transferred to alternate power and there were no adverse effects to the facility as a result of the actuation. Inspectors found charring on the transformer buss bars and believe heat from a arc flash caused by a short in the buss bars activated the deluge system.	\$0
Sandia National Laboratory	Fire/Smoke (Brush)	KAFB Property	IC 10 and IC 9 called out for assistance with Kirtland Fire department for a small brush fire just north of Tech area 3 & 5 bridge. Cost covered by KAFB FD.	\$0
Sandia National Laboratory	Fire/Smoke (Brush)	KAFB Property	IC 10 called out to Coyote Canyon road for a mutual aid response with Kirtland Fire Department of a wildland fire in area. Cost covered by KAFB FD.	\$0
Sandia National Laboratory	Fire/Smoke (Brush)	KAFB Property	Wildland fire at base of Manzano bunkers. Cost covered by KAFB FD.	\$0
Sandia National Laboratory	Fire/Smoke (Brush)	KAFB Property	Brush Fire--north of CTA--west of Manzano fence line. The brush fire area was one half mile north of the CTA area dog kennels and approximately one half mile west of the Manzano fence line. Upon arrival of the FD and IC, the fire was extinguished. Approximately 1/4 to 1/2 acre was burned and no Sandia Property or buildings was involved in this fire. Cost covered by KAFB FD.	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Sandia National Laboratory	Fire/Smoke (Brush)	KAFB Property	SNL and KAFB Emergency responders were dispatched to a Wildland fire, East of Building 9950. High Voltage personnel were able to isolate the power line that was down and additional power lines were isolated that were in the path of the fire. Logistics responded with water tankers and a grader. The fire was extinguished at approximately 1900 hours; approximately 20-30 acres were burned. The cause of the fire was determined to be a broken cross arm on a distribution feeder, East of Building 9950.	\$0
Sandia National Laboratory	Fire/Smoke (Brush)	KAFB Property	Sandia Incident Commanders responded with Kirtland Fire Department to a brush fire in the EOD range.	\$0
Sandia National Laboratory	Fire/Smoke (Brush)	KAFB Property	Sandia emergency personnel responded with Kirtland Fire Department to a brush fire at the EOC range. Cost covered by KAFB FD.	\$0
Sandia National Laboratory	Fire/Smoke (Building)	Building 6530	SNL/NM - Low Order Boiler Explosion, Building 857B. Make: Lochinvar and Model#: PBN-1300-M-9. Accident was related to over pressurization of gas in the unit. Cost covered under warranty.	\$0
Sandia National Laboratory	Fire/Smoke (Vehicle)	City Property by KAFB Fence Line	Sandia IC, Kirtland fire, and Albuquerque responded to a car fire across the street from the IPOC building. Cost covered by KAFB FD.	\$0
Savannah River Site	Fire/Smoke (Brush)	Craig Pond Road	WSI Helicopter support located a small, slow-moving fire just off of Craig Pond Rd. Forestry #1 with 2 personnel was sent to investigate and extinguish as appropriate. Upon arrival, the SRSFD crew found approximately 5 acres that had burned with approximately 1.5 acres still burning. USFS was contacted to provide a crew to place a perimeter link break around the area. F-1 crew remained on-scene until this was accomplished. No water was used on hot spots due to inaccessibility. Fire appears to have begun from a nearby controlled burn that had spread through underground vegetation. There were no injuries and no costs incurred.	\$0
Savannah River Site	Fire/Smoke (Brush)	CMP Pit area	SRSFD personnel received an after-the-fact notification of a fire at the CMP Pit Area. The fire was discovered by SGCP personnel and the cause is unknown. The fire occurred sometime between the afternoon of 06/17/08 and the afternoon of 06/19/08. The slow-burning fire was confined to surrounding ground vegetation. Area burnt is approximately 4' X 4'. Lightning had occurred in the area according to computer information but no above ground evidence indicates a strike in the immediate area. There were no injuries and no costs incurred.	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Savannah River Site	Fire/Smoke (Brush)	J-area	SRSFD personnel were dispatched to an after-the-fact notification of two small grass fires that were started by the cutting/grinding of rebar in J-Area. The fires were extinguished by the fire watch who extinguished the fires using 2 portable fire extinguishers. Forestry #1 responded to verify extinguishment and to obtain a fire report. There were no injuries and no costs incurred.	\$0
Savannah River Site	Fire/Smoke (Brush)	Road 8 and Road F	SRSFD personnel were dispatched to a grass fire at Old Rd. 8 and F Rd. Upon arrival, it was determined that a large oak tree had fallen across a 13.8 kV line that feed the RR Classification Yard and one leg (wire) was snapped and on the ground arcing. The arcing caused 2-3 acres of spot fires which were extinguished by SRSFD personnel 13 with the assistance of USFS responders. The downed lines blocked F-Road for several hours until the high line group de-energized the line and removed it from the road. There was one minor scratch received by a SRSFD officer, which was treated by Medical. There were no costs incurred.	\$0
Savannah River Site	Fire/Smoke (Brush)	near Skinface Pond	The WSI Helicopter reported a small, slow-moving fire just off Skinface Rd. near Skinface Pond to Dispatch. The fire was a re-burn of a controlled burn on May 15. The SRSFD extinguished several snags using Forestry #1 and USFS was notified to assess the situation. The SRSFD left the scene since the fire was contained. There were no injuries and no costs incurred.	\$0
Savannah River Site	Fire/Smoke (Building)	484-D power house	Dispatch received an after-the-fact notification, which was passed on to the SRSFD, of a fire that occurred at 484-D. The LP-3 Turbine on the 2nd floor had spewed oil from the oil reservoir onto the steam header causing a small fire to flare up. A site employee used a 10-lb. portable fire extinguisher to put out the fire. There were no injuries and no costs incurred.	\$0
Savannah River Site	Fire/Smoke (Building)	784-A steam plant	SRSFD personnel were dispatched to a call-in notification of a fire on top of the 784-A power house. A coal overflow of ~2 cubic yards had stood for some time and apparently spontaneously ignited within the pile. Ladder #1 was used to extinguish the smoldering fire and clean the remaining coal off the roof of the structure. Approximately 10,000 gallons of water was used for the entire operation (much of it for post fire clearing/cleaning of the structure). There were no injuries and no costs incurred.	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Savannah River Site	Fire/Smoke (Building)	234-H	SRSFD personnel were notified of an after-the-fact call-in fire in the 234-H facility. Material was being relocated from an inert hood into a fresh air supplied hood. Material had pyrophoric flakes attached and they flashed when introduced to the fresh air. Metal-X powder, which was in a container within the hood, was used to extinguish the fire. There were no injuries, dollar loss or loss of production. In addition, there were no further actions taken on the part of the SRSFD.	\$0
Savannah River Site	Fire/Smoke (Building)	731-1N	Dispatch notified SRSFD personnel of an activated pull station in 731-1N. Upon arrival the Incident Commander met with the Incident Scene Coordinator who stated they had smoke in the building coming from the lunchroom. Fire fighters went in to investigate and found the vending (sandwich) machine had a bad transformer that had been smoking. The unit was de-energized and moved away from the wall. The pull station and then the fire alarm panel were reset and the all clear was given. There were no injuries and no costs incurred.	\$0
Savannah River Site	Fire/Smoke (Other)	Three Rivers Landfill	SRSFD personnel were dispatched to a call-in notification of a fire at the Letec pond at the Three Rivers Landfill. An employee was refilling the fuel tank on a mud pump when the gas spilled onto a hot surface and ignited the pour spout of the plastic fuel can. The employee tossed the burning can behind him which, in turn, ignited the grass on the hill. A privately owned truck was parked close to where the fuel can landed and fire spread under the truck and ignited the engine compartment. Four 5-lb. fire extinguishers were used by facility personnel to extinguish fire. There were no injuries and no loss to DOE.	\$0
Savannah River Site	Fire/Smoke (Other)	701-1K	SRSFD personnel were dispatched to an after-the-fact notification of smoke odor fire at 701-1K. Building personnel had used a fire extinguisher to extinguish the fire. There were no further actions taken on the part of the SRSFD. There were no injuries and no costs incurred.	\$0
Savannah River Site	Fire/Smoke (Other)	near 760-1G	The SUD Dispatcher reported that an employee out in USFS bringing up power saw smoke coming from a generator located behind 760-1G. The employee investigated and the smoke had dissipated. He never saw fire. The SRSFD was called to investigate an after-the-fact notification and found an electrical disconnect tripped. The plastic cover on the block heater had melted slightly. USFS locked and tagged the generator out-of service until Maintenance could check the unit out. There were no injuries and no costs incurred.	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Savannah River Site	Fire/Smoke (Vehicle)	Highway 125 @ mile marker 8.5 (Pecan Gate)	SRSFD personnel were dispatched to a private vehicle fire on Hwy. #125 at Mile Marker 8.5 & the Pecan Gate. A propane charge refrigerator in a camper overheated and caught fire. The owner attempted to extinguish the fire with a 2.5-lb. extinguisher to no avail. Upon arrival, the SRSFD found the camper fully involved. The blaze was extinguished using approximately 500-gallons of water from Engine #1. There were no injuries and no costs incurred.	\$0
Savannah River Site	Fire/Smoke (Vehicle)	Highway 125 @ mile marker 6	SRSFD units were dispatched to a call-in notification of a private vehicle fire at mile marker #6 on Highway #125. Unit 90 was first on-scene and reported that vehicle was totally involved. All occupants were safely out of the vehicle. Other SRSFD units arrived on-scene and began extinguishment. Approximately 500 gallons of water were used. The cause of the fire appears to be a fuel line leak in proximity to the exhaust pipe. The roadway was cleared and the scene released to WSI. There were no injuries of any type and the estimated dollar loss of the private vehicle was \$19,500. No loss to DOE.	\$0
Savannah River Site	Fire/Smoke (Vehicle)	Highway 125	SRSFD personnel were dispatched to a call-in private vehicle accident on Hwy. #125. A care had hydroplaned off the road and hit a tree. Gasoline ignited under the hood. Upon arrival, SRSFD personnel used approximately 600 gallons of water to extinguish the fire. The one occupant of the vehicle refused transport. There were no injuries and no costs incurred.	\$0
Savannah River Site	Fire/Smoke (Vehicle)	Three Rivers Landfill	SRSFD personnel were dispatched to the Three Rivers Landfill to a call-in notification of a private vehicle fire involving 2 large pieces of heavy equipment (a Wildcat Trommel Screen Chipper and a John Deere Loader). In addition, 30 tons of wood chips were burning at the landfill. Mutual aid with Jackson Fire Department was called for water. An estimated 8000-gallons of water was shuttled from B-Area. Landfill personnel used a bulldozer and track-hoe to spread wood chips and make a fire break. Apparently, the chipper generates a lot of friction and was responsible for starting the fire. There were no injuries and no costs incurred. No DOE equipment was lost	\$0
Waste Isolation Pilot Plant			There were no fire loss events for FY2008	\$0
Y-12	Fire/Smoke (Brush)	Cassion Dr at 1st Street	Electrical failure caused a grass fire.	\$0
Y-12	Fire/Smoke (Vehicle)	Landfill #5	Fugitive garbage fell onto engine's exhaust system catching fire.	\$0

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Site	Loss Type	Location	Description	Dollar Loss
Y-12	Leaks, Spills, Releases	9409-13	Deluge system actuated due to low air pressure	\$0
Y-12	Leaks, Spills, Releases	9215	Dry pipe system actuation - no cause found DPS#9	\$0
Y-12	Leaks, Spills, Releases	9212	Dry Pipe system drum drip malfunction	\$0
Y-12	Leaks, Spills, Releases	9624	Dry Pipe system drum drip malfunction DPS#1	\$0
Y-12	Leaks, Spills, Releases	9739	Frozen wet pipe sprinkler system	\$0
Y-12	Leaks, Spills, Releases	9734	Frozen wet pipe sprinkler system WPS#1	\$0
Y-12	Leaks, Spills, Releases	9722-2	Frozen wet pipe sprinkler system WPS#1	\$0
Y-12	Leaks, Spills, Releases	9206	Frozen wet pipe sprinkler system WPS#1	\$0
Y-12	Leaks, Spills, Releases	9733-3	Frozen wet pipe sprinkler system WPS#1	\$0
Y-12	Leaks, Spills, Releases	9995	Frozen wet pipe sprinkler system WPS#2	\$0
Y-12	Leaks, Spills, Releases	9204-2	Frozen wet pipe sprinkler system WPS#4	\$0