

The Secretary of Energy
Washington, DC 20585

September 19, 1995

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW
Suite 700
Washington, D.C. 20004

Dear Mr. Chairman:

Thank you for your April 24, 1995, letter requesting information regarding funding of radiological protection programs at defense nuclear facilities. The enclosed information provides funding data that demonstrates the Department of Energy's effective management of the radiological protection programs at its defense nuclear facilities.

As noted in your letter, a number of Department of Energy defense nuclear facilities have made substantial improvements in their radiological protection programs while minimizing additional costs. Despite these successes, some Department of Energy contractors have projected significant funding needs to implement the "U.S. Department of Energy Radiological Control Manual." These projections reflect the contractors' perceptions of the cost of achieving excellence through use of the "U.S. Department of Energy Radiological Control Manual." The projections do not reflect the cost of achieving compliance with the Department of Energy's basic requirements found in title 10, Code of Federal Regulations, part 835.

Since developing the Defense Nuclear Facilities Safety Board Recommendation 91-6, the Department of Energy has codified basic occupational radiation protection standards in title 10, Code of Federal Regulations, part 835. Compliance with these standards is required by January 1, 1996. Every defense nuclear facility has submitted documented radiation protection programs that contain formal plans and measures for achieving regulatory compliance by the required date with minimal identified need for additional funding. We would like to assure you that unsubstantiated funding projections developed by the Department of Energy's contractors do not suggest noncompliance with basic standards. These projections do not necessarily constitute the Department's plans for program implementation.

Enclosure one to this letter describes the process used to gather the enclosed budgetary data. Enclosure two provides the available budgetary data. Enclosure three provides an explanation of the data.

If you have further concerns regarding this matter, please have your staff contact Mr. C. Rick Jones, Director, Office of Worker Protection Programs and Hazards Management, at (301) 903-6061.

Sincerely,



Hazel R. O'Leary

3 Enclosures

Department of Energy Funding for Radiological Protection Programs
at Defense Nuclear Facilities

Background

On April 24, 1995, the Defense Nuclear Facilities Safety Board requested that the Department of Energy provide documentation of certain details of its funding of radiological protection programs at defense nuclear facilities. Specifically, the Defense Nuclear Facilities Safety Board questioned some projections for the cost of full implementation of the "U.S. Department of Energy Radiological Control Manual" at some defense nuclear facilities and requested data necessary to demonstrate the basis for these projections. The Defense Nuclear Facilities Safety Board's request was forwarded to the Office of Worker Protection Programs and Hazards Management for coordination of the data collection and collation effort.

The Department of Energy has invested significant resources into collecting the requested information. Several meetings were held involving representatives of the Office of Worker Protection Programs and Hazards Management, the Secretarial Offices, the Radiological Control Coordinating Committee, and the Office of Business Performance Systems. In addition, the deputy assistant secretaries for the affected programs invested considerable efforts into guiding the data collection effort.

The information provided has been collected from various sources within the Department of Energy. The primary source of baseline cost data requested by the Defense Nuclear Facilities Safety Board was the Environment, Safety and Health Management Planning Information System database. These data were collected by Headquarters personnel using data for the years 1994, 1995, and 1996 from the fiscal year 1996 budget submission and provided to the operations offices for review. In some cases, operations offices representatives considered that the data from their fiscal year 1997 budget submissions were more representative of field experience. In those cases, the operations offices supplied the data for the years 1994, 1995, and 1996 from their fiscal year 1997 budget submissions to be incorporated in this report. Cost data related to implementation of the "U.S. Department of Energy Radiological Control Manual" were derived from implementation plans for the individual facilities. In some cases, appropriate explanatory information has been provided by individuals familiar with the specific issues.

Please note that the data supplied are budget data, not actual cost (amounts expended) data.

Responses to the Defense Nuclear Facilities Safety Board's Specific Questions

Defense Nuclear Facilities Safety Board Question a:

"For fiscal years 1993 through 1996, identify the costs already incurred, and those projected for the future, to meet radiological safety requirements contained in DOE Order 5480.11, 10 CFR 835, and other radiological protection standards which DOE deems necessary to ensure adequate protection of public health and safety at defense nuclear facilities. The report should reflect baseline costs of radiological controls necessary to meet safety requirements at these facilities and, separately, the incremental costs for implementing the Radiological Control Manual."

Department of Energy Response:

The baseline costs requested by the Defense Nuclear Facilities Safety Board have been derived from the Environment, Safety and Health Management Planning Information System Database and are identified in the database as "Core" budget data. These data are provided in enclosure 2 for fiscal years 1994-1996. The Department of Energy's transition to use of the Environment, Safety and Health Management Planning Information System Database has significantly improved the Department's resource management capabilities. Because the system was in its initial developmental stage in 1993, the data for that year were incomplete. Therefore, the Department of Energy has not provided these data in this submittal.

The "U.S. Department of Energy Radiological Control Manual" implementation cost projections have been extracted from the individual site implementation plans and are identified in enclosure 2 in the "1993-1996 RCM" column.

Defense Nuclear Facilities Safety Board Question b:

"The Board is aware that other facilities within the complex have achieved substantial compliance with radiological control requirements and the Radiological Control Manual at far less cost. Provide the documentation which served as the basis for the cost estimates cited above and state the reasons for the high costs at the sites listed."

Department of Energy Response:

As noted in the letter accompanying these enclosures, the figures cited are projections provided by the Department's contractors and do not necessarily reflect the Department's plans for managing its programs and resources. The "Radiological Control Manual Implementation Status Report" that accompanies the correspondence cited in the Defense Nuclear Facilities Safety Board's request for information specifically states, "Generally, these cost projections have not been systematically validated." The Department does note that the facilities cited are relatively large and complex facilities with

significant legacies of radiological problems resulting from their defense missions and substantial environmental restoration challenges.

While these observations may provide some insight into the projections provided by the contractors, the Department does not necessarily accept these projections without question. For example, line management personnel from the Office of Environmental Management have visited the Oak Ridge and Fernald sites to determine the cause of the high cost projections and to seek ways to minimize the actual costs. As a result of this effort, the Department of Energy was able to validate the cost projections provided by the Fernald site. However, the Department of Energy identified some components of the Oak Ridge cost projections that were more appropriately attributed to other health and safety initiatives. In addition, Oak Ridge has formed multidisciplinary task teams to seek ways to minimize implementation costs. As a result of these and other successful initiatives, projections of implementation costs for Oak Ridge have been reduced by approximately 50 percent (approximately \$30 million) since the distribution of the 1993 implementation status report. Additional efforts have resulted in a reduction of approximately 30 percent (\$10 million) in implementation costs at Los Alamos National Laboratory. These revised projections are reflected in the data provided in enclosure 2.

Defense Nuclear Facilities Safety Board Question c:

"Provide cost details for the fiscal years 1993 through 1996 in the following categories related to radiological controls: equipment, capital construction, administrative, overhead, personnel, auditing, oversight, training development, and implementation. In addition, the report should contain similar cost estimates by these categories for any continued and planned efforts."

Department of Energy Response:

The Department's financial management processes do not provide for segregation of funding requests into the requested categories. Therefore, the information provided has been summarized in the budget categories supported by the Department's financial management systems: operating expenses; capital equipment; and general plant projects and line item projects (i.e., capital construction).

Enclosure 2

Department of Energy Funding for Radiological Protection Programs
at Defense Nuclear Facilities

Budgetary Data

U.S. Department of Energy Radiological Protection Program
Cost Projections by Facility

Summary of Radiological Protection Program Cost Projections by Site¹

Facility	Core (C) or Total (TT)	1994			1995			1996			1993-96 RCM
		OE	CE	GPP/LIP	OE	CE	GPP/LIP	OE	CE	GPP/LIP	
Fernald	C	6.19 ²	0	0	5.21 ²	0	0	5.29 ²	0	0	19.01
Hanford ³	C	67.77 ²	0.56 ²	0	59.86 ²	1.17 ²	0	56.99 ²	1.43 ²	0	8.87
INEL ⁷	T	26.50	0	0	25.70	0	0	27.60	0	0	11.89
K City	C	0.17	0	0	0.16 ²	0	0	0.17 ²	0	0	0
LANL	C	53.12	0.22	0	37.04 ²	7.22 ²	0	34.86 ²	7.40 ²	0	25.08 ⁸
LLNL	C	5.82	0	0	4.99 ²	0	0	5.11 ²	0	0	15.98
Mound	T	7.28 ²	0	0	7.28 ²	0	0	5.18 ²	0	0	2.93
NTS	C	9.28	0	0	7.61	0	0	6.87	0	0	4.75
Oak Ridge ⁵	C	35.59 ²	2.05 ²	0	37.49 ²	3.60 ²	0	37.78 ²	3.52 ²	0	31.50 ⁶
Pantex	C	4.19	0	0	3.48 ²	0	0	3.62 ²	0	0	1.73
Pinellas	C	0.30	0	0	0.51	0	0	0.37	0	0	0
RFETC ⁴	T	47.59 ²	0	0	59.10	0	0	46.96	0	0	24.71
SNL	C	11.50	0.11	0	7.12 ²	0	0	11.34 ²	0	0	13.68
SRS	T	61.65	1.70	8.85	65.79	0.70	7.70	60.49	1.07	7.36	5.00
WIPP	T	0.55	0	0	0.85	0	0	0.59	0	0	0
W. Valley	T	1.00	0	0	3.40	0	0	4.00	0	0	0.19
Total		438.50	4.64	8.85	325.59	12.69	7.70	307.22	13.42	7.36	165.32

Notes: All quantities in \$M.

OE - Operating Expenses CE - Capital Equipment GPP/LIP - General Plant Projects/Line Item Projects

Core costs are those reflected on facility Activity Data Sheets considered essential to maintenance of existing programs.

Total costs reflect the total of all facility Activity Data Sheets - Core, Compliance, and Improvement

See Enclosure 3 for explanation of footnotes.

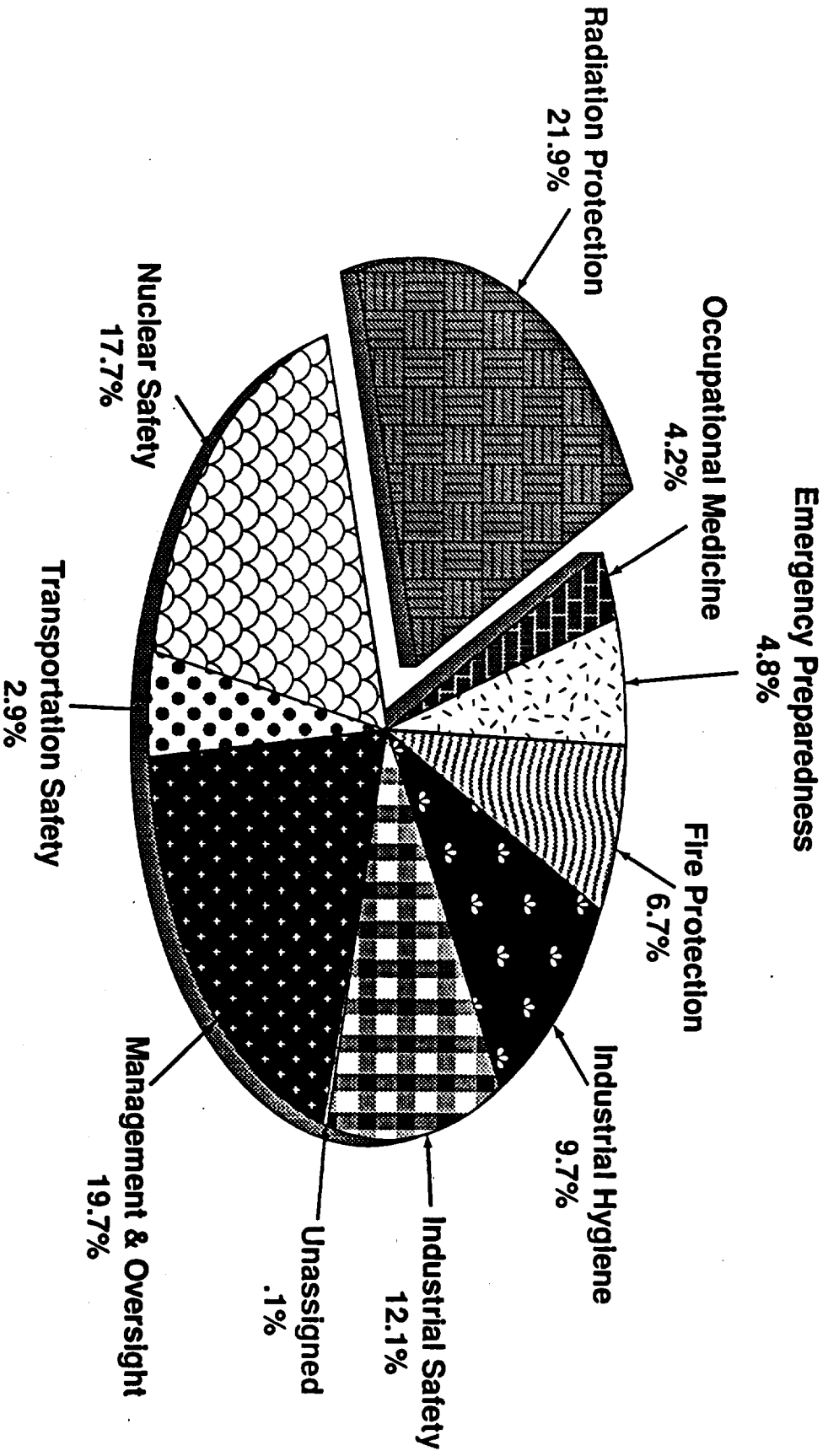
Enclosure 2-A

Department of Energy Funding for Radiological Protection Programs
at Defense Nuclear Facilities

Budgetary Data

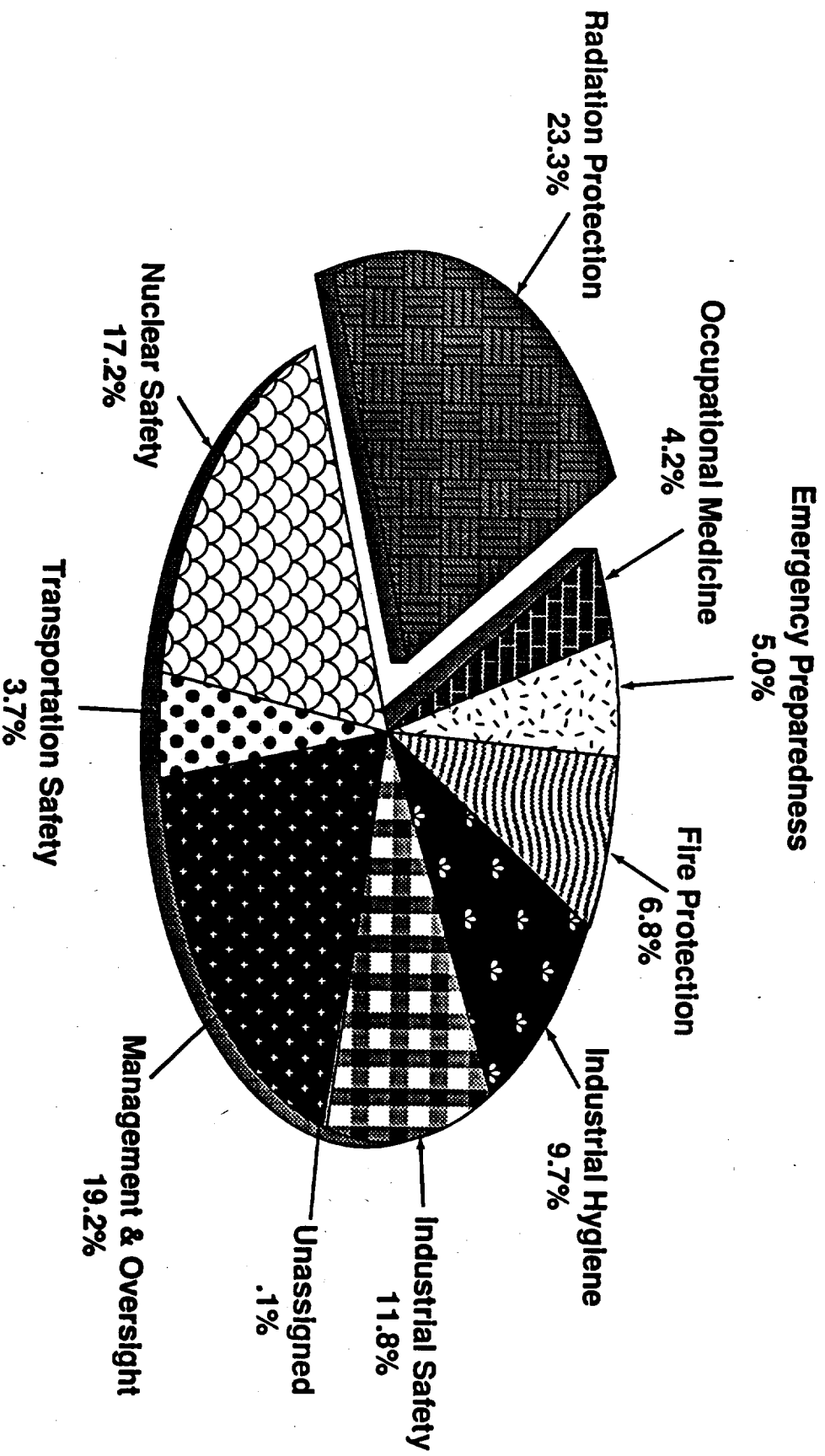
Department of Energy Environment, Safety and Health Funding by Functional Area
(also see number 8 of enclosure 3)

RP Costs as Compared to Total ES&H Costs 1994



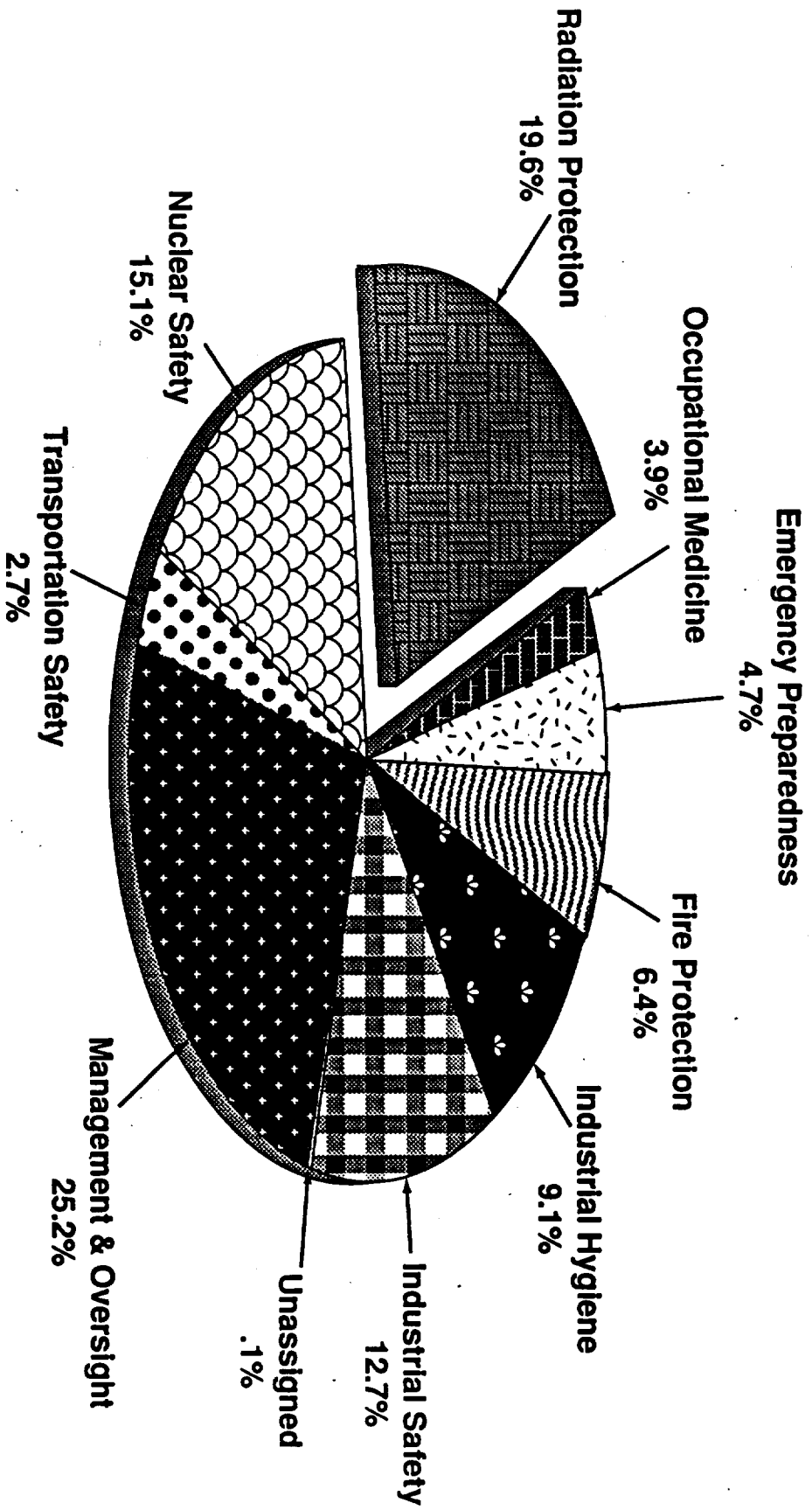
Totals may not equal 100% due to rounding of data.

RP Costs as Compared to Total ES&H Costs 1995



Totals may not equal 100% due to rounding of data.

RP Costs as Compared to Total ES&H Costs 1996



Totals may not equal 100% due to rounding of data.

Department of Energy Funding for Radiological Protection Programs
at Defense Nuclear Facilities

Notes and Explanations

1. Unless otherwise noted, all data were developed from information available on the Headquarters Environment, Safety and Health Management Planning Information System Database--generally from fiscal year 1996 budget submittals. Except as noted in number 5 below, the "U.S. Department of Energy Radiological Control Manual" implementation costs were extracted from the "1993 Radiological Control Manual Implementation Status Report." All data are in millions of dollars. Since the data are derived from budget submittals, they may not be completely representative of actual costs.
2. Data were developed from information submitted by the cognizant operations office--generally from fiscal year 1997 budget submittals.
3. Hanford
 - a. Data do not reflect adjustments after April 14, 1995.
 - b. Indirect budget data submitted by the operations office were reduced by one-half to reflect overlap between direct and indirect categories.
4. Rocky Flats
 - a. All figures represent total program budgets and do not separate title 10, Code of Federal Regulations, part 835 and "U.S. Department of Energy Radiological Control Manual" costs.
 - b. Radiation protection budget figures for projects involving substantial construction or capital equipment costs may not accurately reflect actual costs.
5. Oak Ridge includes K-25, Y-12, and Oak Ridge National Laboratory (totals for Lockheed Martin facilities).
6. Oak Ridge and Los Alamos National Laboratory "U.S. Department of Energy Radiological Control Manual" implementation costs for 1993-1996 were derived from recent projections provided by the cognizant operations offices.

Enclosure 3

- 7. Idaho National Engineering Laboratory cost projections include the Idaho Chemical Processing Plant. Idaho National Engineering Laboratory cost projections for the "U.S. Department of Energy Radiological Control Manual" implementation do not reflect savings expected to result from contractor consolidation.**

- 8. For the purposes of comparisons to funding for other health and safety programs, all data are derived from the fiscal year 1996 budgetary submittal in the Environment, Safety and Health Management Planning.**