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Department of Energy

memorandum

DATE: August 22, 1994

REPLY TO
ATTN OF: IG-1

SUBJECT: INFORMATION: Report on "Audit of Selected Aspects of the Waste Isolation Pilot Plant Cost Structure"

TO: The Secretary

BACKGROUND:

In February 1994 the Office of Inspector General (OIG) issued an audit report indicating that contractor staffing at the Waste Isolation Pilot Plant (WIPP), in the 5 departments reviewed, increased 38 percent between 1991 and 1994. The OIG questioned whether such an increase was justified in light of the programmatic decisions extending the expected first receipt of radioactive waste. An independent cost assessment, issued by the Deputy Assistant Secretary for Waste Operations in November 1993, also addressed contractor staffing as well as other opportunities to achieve cost savings. These reviews caused both the Office of Inspector General and the Office of Environmental Management to have concerns about WIPP's cost-effectiveness.

DISCUSSION:

The Assistant Secretary for Environmental Management requested this audit as a way to establish whether WIPP contractor staffing appropriately and cost-effectively met programmatic requirements. We worked with the Assistant Secretary to design a unique team approach methodology in keeping with your strategic plan for the Department. Management provided team members who participated in audit processes and analyses. We also solicited expert opinions from mining and nuclear specialists recommended to us by the Office of Environmental Management. Finally, with the assistance of management, we selected benchmarks to help us objectively gauge appropriate staffing levels across all employment categories.

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As a result of our cooperative audit, we recommended that WIPP contractor staffing be reduced to approximately 583 employees, a 25 percent reduction. The Assistant Secretary disagreed with our recommended staffing level, but targeted a 15 percent reduction.

John C. Layton
Inspector General

Attachment

cc: Deputy Secretary
Under Secretary
Assistant Secretary for Environmental Management

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL

AUDIT OF SELECTED ASPECTS OF
THE WASTE ISOLATION PILOT PLANT COST STRUCTURE
CARLSBAD, NEW MEXICO

Report Number: DOE/IG-0356
Date of Issue: August 22, 1994

Western Regional Audit Office
Albuquerque, New Mexico 87185

AUDIT OF SELECTED ASPECTS OF
THE WASTE ISOLATION PILOT PLANT COST STRUCTURE
CARLSBAD, NEW MEXICO

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U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
OFFICE OF AUDITS

AUDIT OF SELECTED ASPECTS OF
THE WASTE ISOLATION PILOT PLANT COST STRUCTURE
CARLSBAD, NEW MEXICO

Audit Report Number: DOE/IG-0356

SUMMARY

The Department of Energy's (DOE) Waste Isolation Pilot Plant (WIPP), located near Carlsbad, New Mexico, is a research and development facility intended to demonstrate that transuranic waste from the Government's defense activities can be safely disposed of in a deep geologic formation. The Fiscal Year 1994 budget for WIPP is about \$185 million and includes funding for the operation of WIPP and for experiments being done by other DOE facilities. DOE's current plan is for WIPP to begin receiving transuranic waste in June 1998.

This audit was requested by the Assistant Secretary for Environmental Management because two recent reports, one issued by the Office of Inspector General (OIG), were critical of the staffing and cost-effectiveness of WIPP, and because of recent mission changes at WIPP. The audit team consisted of representatives from the DOE, auditors from the OIG, and technical specialists hired by the OIG to assist in the audit. The purpose of the audit was to determine whether WIPP was appropriately staffed to meet programmatic requirements in the most cost-effective manner.

The Secretary of Energy expected DOE facilities to benchmark their performance against other facilities to strive for "best in class" status, and the Westinghouse management and operating contract for WIPP required the facility to be operated in a cost-effective manner. However, we determined that Westinghouse did not use benchmarks and that WIPP could be managed more cost-effectively, with fewer personnel, while maintaining its current level of excellence. We concluded that the WIPP staffing level could be significantly reduced with a decrease in costs at WIPP of about \$11.4 million per year.

The Assistant Secretary for Environmental Management disagreed with our suggested staffing reduction of 25 percent, but indicated he would target a 15 percent reduction.

Office of Inspector General

PART I

APPROACH AND OVERVIEW

INTRODUCTION

At the request of the Assistant Secretary for Environmental Management, the Inspector General initiated a detailed examination of WIPP's level of staffing to determine if it appropriately and cost-effectively met programmatic requirements.

SCOPE AND METHODOLOGY

The audit was conducted primarily at the WIPP site near Carlsbad, New Mexico, from March 7 through May 27, 1994. The scope of the audit covered staffing and funding at Westinghouse Waste Isolation Division (Westinghouse), WIPP's management and operating contractor. Information was also gathered at Sandia National Laboratories in Albuquerque, New Mexico and the WIPP Program Office in Germantown, Maryland. In addition, we met with many of WIPP's principal stakeholders, including representatives from the Environmental Protection Agency (EPA), the Defense Nuclear Facilities Safety Board, the Environmental Evaluation Group, the National Academy of Sciences, the New Mexico Environment Department, and New Mexico's Attorney General's Office.

One of the strategies advocated in the Secretary of Energy's strategic plan is the development of an oversight process that involves affected parties in a team approach to the review of Departmental facilities. In keeping with that strategy, the Assistant Secretary and the Inspector General agreed in advance to the scope and methodology to be used during the audit. The agreement stipulated the use of innovative and cooperative audit techniques, including consultation with technical specialists, use of benchmarks and comparative statistics where appropriate and available, and augmentation of the audit team with representatives from the Office of Environmental Management and DOE's Carlsbad Area Office. To ensure that the Inspector General's independence was maintained, the OIG had sole responsibility for preparing and issuing the audit report.

To help accomplish the audit objective, we consulted with technical specialists in mining, engineering, nuclear operations, accounting, human resources, and information technology. We tasked the specialists with estimating, on an organization-by-organization basis, the staffing resources necessary for Westinghouse to carry out its mission. Estimates were based on expert knowledge of specialty areas, workload and requirements analyses, and the application of available benchmarks. The majority of the specialists we used were recommended to us by the Office of Environmental Management and the Carlsbad Area Office,

and the Area Office Manager was given the opportunity to review their resumes. We assigned specialists to all 41 Westinghouse organizational units.

To help validate estimates reached by the technical specialists, we also applied summary-level benchmarks. For example, we analyzed staffing statistics gathered by the Institute of Nuclear Power Operations, an industry group whose member organizations are nuclear utilities. We then compared those statistics to Westinghouse staffing levels.

We reviewed non-labor portions of the Westinghouse budget by selecting a number of cost centers for detailed examination. We concentrated our efforts on areas that had been identified in previous reports as candidates for increased efficiency, such as training, transportation, inventory, computer equipment, and use of subcontracts.

The audit included a detailed review of applicable laws and regulations, Department of Energy orders, the Westinghouse contract, and other documents that established requirements and expectations for WIPP. Two key documents, containing many of WIPP's current operating assumptions, were the January 1994 Carlsbad Area Office Waste Isolation Division Transition Plan (Transition Plan), and the WIPP Disposal Decision Plan, issued in April 1994.

The nature and timing of this audit and the methodology employed, required an enhanced level of communication and cooperation among the participants. The audit team included a technical representative from the Office of Environmental Management and one from the Carlsbad Area Office. These representatives, nominated by the Assistant Secretary and approved by the Office of Inspector General, participated fully in gathering, analyzing, and summarizing data. Additionally, the audit team leader briefed the Area Office Manager approximately every other week during the audit fieldwork. These briefings allowed early discussion of audit observations and early resolution of problem areas. On May 5, 1994, the audit team also briefed the Assistant Secretary's special assistant on the status of the audit.

The audit was conducted according to generally accepted Government auditing standards for performance audits, which included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective.

We assessed the significant internal controls with respect to Westinghouse's costs. Our assessment consisted of a review of indirect costs and staffing. Because our review was limited, it

would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit.

We relied on computer-generated data for staffing headcounts and related information. However, this information was verified by observation during the audit.

An exit conference was held with the Assistant Secretary on July 15, 1994.

The firm of KPMG Peat Marwick participated with the Office of Inspector General in conducting this audit.

BACKGROUND

WIPP is a research and development facility intended to demonstrate the safe disposal, in deep geologic formations, of transuranic radioactive wastes generated by the Government's defense activities. WIPP is located on a 10,240-acre site 26 miles east of Carlsbad, New Mexico, and is designed to hold 6.2 million cubic feet of waste. Westinghouse has been the management and operating contractor for WIPP since 1985. The Albuquerque Operations Office has administrative responsibility for WIPP, while programmatic authority rests with the Assistant Secretary for Environmental Management, acting through the Manager of the Carlsbad Area Office.

Plans for first receipt of waste at WIPP have undergone a number of changes. The Department planned to begin a test phase by shipping waste to WIPP in 1988; due to a shifting regulatory environment, however, WIPP was not declared operational until 1991. Additional delays beyond the Department's control prevented any waste shipments. Finally, in October 1993, the Department abandoned all plans to test radioactive waste at WIPP and decided instead to concentrate on a plan of accelerated compliance with regulatory requirements. The revised strategy, if successful, would result in the commencement of disposal operations and the first receipt of waste in June 1998.

In February 1994 the Office of Inspector General issued an audit report indicating that Westinghouse staffing, in the 5 departments reviewed, increased 38 percent between 1991 and 1994. The OIG questioned whether such an increase was justified in light of the programmatic decisions extending the expected first receipt of radioactive waste. Recommendations included a reduction in staffing in the 5 departments to the March 1991 levels, a decrease of approximately 29 positions. In his response to a draft of that report, the Manager of the Carlsbad Area Office disagreed with the finding and recommendations.

An independent cost assessment, issued by the Deputy Assistant Secretary for Waste Operations in November 1993, also

addressed Westinghouse staffing as well as other opportunities to achieve cost savings. Although this report reached no final conclusions as to an appropriate staffing level, its authors identified a need to benchmark common activities, such as finance and budget, engineering, and quality assurance. The report suggested that data gleaned from benchmarking would facilitate the identification of significant cost savings. This assessment also recommended closer scrutiny of cost centers such as travel, training, computer equipment, and use of subcontractors.

The results of the two reviews, one by the Office of Inspector General and one by the Office of Environmental Management, caused both offices to have concern about WIPP's cost-effectiveness. The offices agreed to participate in a joint, comprehensive examination of Westinghouse resource requirements to resolve those concerns.

OBSERVATIONS AND CONCLUSIONS

In his March 7, 1994, letter to the Inspector General, the Assistant Secretary for Environmental Management stated that this audit would provide an excellent example of how the OIG and program management could work cooperatively for the achievement of mutual objectives. We agree. This first-of-its-kind effort tested new pathways to the resolution of differences and the pursuit of "best practices" for operating a Department facility.

There were many positive observations made during the audit. Westinghouse was commended for effective performance in many areas and for maintaining an excellent operating culture of teamwork and constant improvement. Our mining specialist observed that Westinghouse had perhaps the most talented and focused geotechnical engineering group in the world.

Working together with the Office of Environmental Management and the Carlsbad Area Office, we used technical specialists and benchmarks to determine that WIPP could operate more efficiently. In responding to a draft of this report, the Assistant Secretary agreed that a significant staffing reduction could be accomplished while still achieving WIPP's mission and objectives. He further agreed to immediately schedule an 11 percent reduction and to target a reduction of 15 percent or more.

But more efficiencies were available. The audit provided insights on reducing the Westinghouse staffing baseline by 22 to 35 percent. Some suggested improvements involved changes to current operating policies, but most did not. Additionally, benchmarked against the nuclear power industry, Westinghouse should have been able to operate as much as 25 percent more efficiently. Based on these audit observations, and our support of the Secretary's mandate for a streamlined and innovative Department, we recommended that the Assistant Secretary for

Environmental Management and the Manager of the Carlsbad Area Office establish a Westinghouse staffing baseline 25 percent lower than the current level.

We also recommended that future changes to the staffing baseline be accomplished using methods similar to those used during the audit. Benchmarks, comparative statistics, and other performance measures introduce more objectivity to the staffing process. They are also much more defensible than a staffing level arrived at simply by adjustments to a historical baseline.

In our opinion, the Department should consider the excessive staffing levels at WIPP a material internal control weakness when preparing the yearend assurance memorandum on internal controls. In addition to staffing, we also noted several other areas of internal control weaknesses. These areas are discussed in Part IV of this report.

PART II

FINDING AND RECOMMENDATIONS

Staffing Requirements

FINDING

In her strategic plan, the Secretary of Energy stated that the Department's facilities should strive for "best in class" status by benchmarking performance against other Government agencies and industry. The Department's contract with Westinghouse for management of the Waste Isolation Pilot Plant echoes a similar message, requiring the use of cost-effective management practices. As part of our cooperative audit of WIPP costs, we used technical specialists and benchmarks to determine that WIPP could be managed more efficiently, with fewer personnel, while still maintaining its current level of excellence. This situation occurred because Westinghouse did not adequately baseline its staffing needs and because the Department did not take full advantage of WIPP's recent mission change to critically evaluate resource requirements. Based on our audit, an appropriate staffing level for Westinghouse to balance excellence with cost-effectiveness would be approximately 583 personnel, which would allow a reduction in costs of about \$11.4 million per year.

RECOMMENDATIONS

We recommend that the Assistant Secretary for Environmental Management:

1. Acting through the Manager of the Carlsbad Area Office, direct Westinghouse to:
 - a. reduce the Waste Isolation Pilot Plant staffing level to approximately 583 full-time equivalent personnel while maintaining the same or a reduced level of subcontractor and temporary personnel; and,
 - b. maintain the recommended staffing level at least until the Environmental Protection Agency gives a preliminary indication that the Department's application to operate WIPP will be approved.
2. Work with the Manager, Carlsbad Area Office in determining whether any temporary waivers from DOE orders are necessary to implement the recommended staffing baseline, and, if so, to request such waivers.

3. Require the Manager, Carlsbad Area Office to make any adjustments necessary to the Disposal Decision Plan to implement the recommended staffing baseline.
4. Work with the Manager, Carlsbad Area Office, to critically re-evaluate future Westinghouse staffing requests, using benchmarks, comparative statistics, and other performance measures, to accommodate programmatic changes.

MANAGEMENT COMMENTS

The Assistant Secretary for Environmental Management disagreed with our recommended staffing level. Instead, Environmental Management targeted a reduction of 15 percent (to approximately 660 employees). Detailed management and auditor comments are included in Part III of this report.

DETAILS OF FINDING

STRATEGIC PLAN AND CONTRACT REFORM GOALS

In April 1994 the Secretary of Energy issued Fueling a Competitive Economy, a strategic plan for the Department emphasizing openness, proactive approaches, and the delivery of more results with less money. In this document, the Secretary stressed the need for the Department to become more streamlined and agile. She proposed that one success indicator would be the optimal operation of major experimental facilities and suggested performance benchmarking as an important strategy for achieving "best in class" status. The Secretary also noted the importance of fully developed cost baselines to ensure that Department projects were controlled managerially and financially, and perceived as such by stakeholders.

The Department's contract with Westinghouse placed a similar emphasis on efficiency. Paragraph B.01 of the contract required that Westinghouse provide the personnel and otherwise do all things necessary to manage and operate WIPP in an efficient and effective manner. The contractor was to use its best efforts to ensure that all services were delivered efficiently.

WESTINGHOUSE STAFFING

We worked with the Office of Environmental Management and the Carlsbad Area Office to determine an appropriate baseline staffing level for Westinghouse. At the time of our audit, Westinghouse had 777 employees at the WIPP site and subcontracts which equated to an additional 172 full-time equivalent personnel (105 on-site). This baseline was keyed to assumptions in the Transition Plan and the Disposal Decision Plan, including:

- o submission of a draft compliance certification package to EPA in March 1995;
- o submission of a final package to EPA in December 1996;
- o a decision by the Secretary of Energy to operate WIPP as a disposal facility in January 1998; and,
- o commencement of disposal operations in June 1998.

We examined the methodology used to arrive at the correct staffing baseline to meet these assumptions. We found that

Westinghouse relied mostly on historical staffing levels, then added and subtracted staff based on changes to WIPP's mission.

While there may have been some logic to the Westinghouse staffing methodology, it lacked objectivity and assumed that historical staffing levels were appropriate. We sought to introduce more objectivity to the staffing process by tasking technical specialists to estimate resource requirements and by applying summary-level benchmarks comparing WIPP with other nuclear facilities.

Technical Specialist Reviews

We worked with 11 technical specialists, who included in their reviews all of the 41 major groups identified on the March 1994 Westinghouse organization chart. The specialists interviewed the managers of the departments and sections they reviewed; held discussions with personnel in those areas; toured work areas and observed work in progress; gathered, reviewed, and analyzed documentation on Westinghouse organization and workload; researched benchmarks and comparative statistics, and, where appropriate, compared the benchmarks to WIPP staffing.

Each specialist provided us with a written report of work completed and conclusions reached. Viewed as a whole, the specialists' reports recommended a WIPP staffing baseline ranging from 505 to 609 personnel, as detailed in the table below.

<u>Department</u>	<u>Current Staff ^{1/}</u>	<u>Estimated Number of Staff Needed</u>
General Manager	10	8
Program Management	27	18
ESH & Reg.Compliance	95	75
Stakeholder Relations	37	26 - 27
Human Resources	65	39
Operations	265	158 - 227
Controller	133	107 - 109
Engineering	112	56 - 88
Quality & Reg.Assurance	29	18
Productivity & Cost Eff.	4	0
Total	<u>777</u>	<u>505 - 609</u>

^{1/} This headcount was provided by the Human Resources Department at the beginning of the audit. Due to frequent organization changes and personnel transfers during the audit, the count actually found in each department differed slightly in most cases from the Human Resources count.

In addition to the summary numbers listed in the table, the specialists' reports totaled about 300 pages of wide-ranging analyses, comparisons, observations, and expert opinion. The specialists used many standards to help them arrive at their conclusions, including comparisons to nuclear power plants, commercial mines, and state, city, and county governments; and databases representing a variety of industries, including financial services, telecommunications, and electric power companies.

Although completed independently, the reports contained a number of common themes, some very complimentary of WIPP's operations. Many other observations, however, noted opportunities for increased efficiency. For example, various reports noted that:

- o The span of control in several departments was considerably lower than necessary and impeded communication.
- o Numbers of secretarial positions seemed excessive in many departments. In some cases, each section manager within a department had a secretary; pooling administrative support would have increased efficiency.
- o There was evidence that when a new or expanded function was identified, an entire full-time equivalent was assigned when that level of effort was not required.
- o Some functional areas were overstaffed due to sub-specialization and ongoing efforts that exceeded reasonable interpretations of requirements.
- o Westinghouse staff attempted to follow various criteria, such as DOE Orders and other requirements of nuclear facilities, to the letter, even though WIPP had no nuclear material and was not scheduled for any such waste for at least four more years.
- o Westinghouse departments appeared to reorganize frequently. There was so much movement of staff that it was difficult to obtain an accurate headcount or organization chart.
- o Benchmarks were not generally used in arriving at staffing levels.
- o Various ratio analyses and comparisons with other organizations indicated staffing that exceeded comparable groups in the financial and information technology areas.

Carlsbad Area Office Views on Specialist Reports

We provided copies of the specialist reports to the Carlsbad Area Office Manager. On June 3, 1994, the Manager sent us written comments on the reports and on June 6, 1994, we met with the Deputy Manager to obtain his views on the specialists' observations and conclusions.

In his written comments, the Manager stated that a number of the reports provided very useful, well-documented findings that would assist in defining appropriate staffing levels for Westinghouse; however, he added that there were some fundamental philosophy and/or perception differences between DOE and the OIG. For example, some of the specialist reports included questions about the viability of WIPP's schedule and the classification of WIPP as a nuclear facility. In the Manager's view, such questions were beyond the intent of the audit. The Manager also stated that some of the benchmark comparisons used were questionable; that WIPP did not generally have the flexibility to defer compliance with DOE Orders and other requirements; and, that the specialists gave little regard to the resource and schedule requirements related to obtaining permits and/or certifications to conduct disposal operations at WIPP.

We met with the Deputy Manager to follow up on these concerns. The Deputy Manager gave us additional written comments on the individual reports. In summary, the Carlsbad Area Office suggested a Westinghouse staffing baseline of 692 personnel, arrayed as shown in the following table.

<u>Department</u>	<u>Current Staff</u> ^{2/}	<u>Estimated Number of Staff Needed</u>
General Manager	9	9
Program Management	25	23
ESH & Reg.Compliance	95	85
Stakeholder Relations	37	30
Human Resources	65	61
Operations	260	242
Controller	133	125
Engineering	112	91
Quality & Reg.Assurance	29	24
Productivity & Cost Eff.	4	2
Total	<u>769</u>	<u>692</u>

^{2/} These numbers differ slightly from those on page 11 due to different time periods.

The staffing numbers proposed by the Carlsbad Area Office reflect an 11 percent reduction in the current Westinghouse staffing level. The Deputy Manager told us that these numbers represent the minimum number of Westinghouse staff needed to meet all of the requirements and assumptions of the Transition Plan and the WIPP Disposal Decision Plan.

OIG Position

We agree with the Deputy Manager that a staffing reduction of at least 11 percent is appropriate given the programmatic and schedule assumptions in the Transition Plan and the Disposal Decision Plan. However, when we reviewed the Area Office comments and discussed them with the technical specialists, we generally found nothing that would alter the conclusion that Westinghouse could operate efficiently and effectively with 22 to 35 percent fewer staff.

We also disagree with the Manager's assertion that questioning programmatic assumptions was inappropriate. At the audit entrance conference held March 7, 1994, we agreed that the Transition Plan would represent the approved programmatic position of DOE and that the assumptions contained in the Plan would be challenged during the audit. More important, however, is the central issue of how to most efficiently operate WIPP. The reliability of the WIPP schedule, and other assumptions, is key to that determination. The specialist reports contain many recommendations, some that challenge assumptions, and many that do not. The specialists were looking for efficiencies, even if that meant, in a few cases, suggesting new ways of doing business.

One example of a major assumption that the OIG finds questionable is the assertion that radioactive waste will be emplaced in WIPP by June 1998, as called for in the Disposal Decision Plan. We discussed WIPP's schedule with representatives from many of the principal stakeholder organizations, including the EPA, the Environmental Evaluation Group, the National Academy of Sciences, and the New Mexico Attorney General's Office. The Director of EPA's Office of Radiation and Indoor Air, who will play a key role in certifying WIPP for receipt of waste, told us that a decision may be possible in the one year allowed on WIPP's schedule, but is more likely to take longer. She cited a lengthy public comment process that is frequently subject to delays and other aspects of the regulatory process that are beyond EPA's control. Representatives from the other three groups cited above all shared with us concerns that key scientific data, sufficient to convince EPA that WIPP has met all requirements, will not be available in time to meet the schedule.

In addition, the Carlsbad Area Office is currently working with Sandia National Laboratories on a Systems Prioritization Program that may affect the schedule. The results of this project, which will array a number of choices geared toward achieving certification, will not be finalized until early in 1995, according to the Deputy Manager. At that time, the Manager will select a course of action. Most stakeholders we talked to supported this program, but pointed out that the Manager may select an alternative which lengthens the schedule. In a discussion we had with the Manager on March 30, he acknowledged that he could choose such an alternative even though he considers such a choice unlikely.

Although we fully support an aggressive WIPP schedule, it is important that staffing decisions are based on realistic goals and assumptions, and that ideas not be rejected out-of-hand simply because they do not mesh with current policy. Significant uncertainties still exist which are beyond the Department's control. Given WIPP's history, the project should accept and address the schedule uncertainties in a more realistic manner.

Summary-Level Benchmarks

We sought to introduce additional objectivity to the process of recommending a staffing baseline by trying to locate benchmarks that could be applied on a facility-wide basis. This type of benchmark, if available, would help us validate the ranges suggested by the technical experts. We worked with the audit team member from the Carlsbad Area Office to obtain and analyze one such benchmark, a statistical survey assembled by the Institute of Nuclear Power Operations, an industry group whose members are commercial nuclear utilities.

We analyzed the Institute's 1993 Survey of Nuclear-Related Employment in United States Electric Utilities. This survey was designed to provide current data and to identify trends in nuclear-related utility employment. According to the Institute, the survey is the primary source of information concerning current and historical industry-wide nuclear power plant employment. In recent years, the survey data have been used by utilities to compare staffing levels and organization structures in support of economic performance efforts. For our purposes, using this survey essentially equated to benchmarking WIPP against the nuclear power industry.

Our analysis centered on staff distribution. To assure comparability of data, we agreed with the Carlsbad Area Office to exclude some categories of Westinghouse employees and to include the 120 subcontractors, giving us a total of 785 personnel for comparison purposes. We then looked to the Institute's statistical survey for the expected distribution of the 785 among functional areas.

The comparison showed that Westinghouse had more than the expected number of employees and subcontractors in 12 functional areas covering 551 of the 785 positions, as illustrated in the table below.

<u>Functional Area</u>	<u>Net WIPP Staffing</u>	<u>Expected Staffing</u>	<u>Difference</u>
Nuclear Records/Doc Control	45	20	25
Emergency Planning/Community Affairs/Communications	25	7	18
Purchasing/Stores	42	30	12
Chemistry	27	21	6
Electrical Maintenance	31	28	3
Planning, Costs & Scheduling	27	20	7
Other Maintenance	75	49	26
Technical Support/Engineering	174	120	54
Licensing & Government Relations	25	11	14
Nuclear Safety Evaluation	13	8	5
Fuel Management	15	6	9
Other	<u>52</u>	<u>38</u>	<u>14</u>
TOTALS	<u>551</u>	<u>358</u>	<u>193</u>

The data above indicate that there were 193 more personnel in these categories than expected, or 25 percent of the 785 positions. A number of these comparisons clearly support the technical specialist observations, for example:

- o WIPP had more than triple the expected number of employees in community affairs. We understand that WIPP needs to be exceptionally responsive to stakeholder concerns, but the difference between WIPP's staff and the expected number appeared excessive.
- o WIPP had more than twice as many staff in the nuclear records and document control function as the nuclear industry expectation. This added support to the specialist observation that the Westinghouse response to requirements tended to exceed reasonable expectations, particularly since no radioactive waste was expected on site for at least four years.

We concentrated our analysis on the higher-than-expected categories and assumed that staffing in the others was at least adequate to meet the requirements and expectations of the Transition Plan. As noted in the previous section, the Carlsbad Area Office believed not only that Westinghouse could achieve its mission with current staff, but also that it could do so with 11 percent fewer staff.

In summary, benchmarking WIPP against the nuclear power industry confirmed the overall conclusion reached by the technical specialists. The experts recommended a Westinghouse staffing baseline ranging from 22 to 35 percent lower than the current level of 777 employees. In the categories compared, the Institute's survey data suggest that the baseline could be as much as 25 percent lower than the current level.

WESTINGHOUSE STAFFING METHODOLOGY AND DEPARTMENT OVERSIGHT

Westinghouse arrived at a workforce of 777 employees primarily by using previous years' staffing levels as a baseline, then adjusting for perceived changes in workload. We interviewed 7 department managers and 15 cost account managers, all of whom told us that benchmarking was not a method used to help determine staffing requirements. Almost all of these managers estimated their current staffing needs based on how many people reported to them in the previous year.

We also reviewed a sample of employment requisition forms, the document Westinghouse managers used to request additional staff. These forms required a justification, but did not allow space for any significant detail. The forms we reviewed lacked sufficient specificity to convince us of the need for the requested personnel. For example, one form gave "new position" as the justification for requesting an additional staff person.

Our review of Westinghouse methodology led us to conclude that the current staffing level could not be relied on as a fully developed baseline. Objective measures, such as performance benchmarks, were not part of the staffing methodology.

We also observed during our audit that WIPP's transition from a test-phase mission to one of accelerated compliance offered the Department a unique opportunity to critically re-evaluate resource requirements at Westinghouse and across the entire WIPP program. The Transition Plan was published in January 1994, only three months after the mission change. We found little evidence that the many assumptions regarding the contractor's workload and resource estimates were seriously challenged during that time. To its credit, however, the Carlsbad Area Office responded quickly to the technical specialist reports generated during this audit and provided us with its own analyses of appropriate staffing levels given current programmatic assumptions.

POTENTIAL COST SAVINGS FROM REVISED BASELINE

The OIG concluded that the Westinghouse staffing baseline should be about 583 personnel, approximately 25 percent fewer than the current staffing level. We agree with the Carlsbad Area

Office that the staff can be reduced by at least 11 percent without any changes to current programmatic assumptions. However, the audit suggested many additional opportunities for efficiencies and staffing reductions of from 22 to 35 percent are possible. The higher end of that range would require some changes to current schedule assumptions; but based on the audit, a 25 percent reduction is a reasonable target. The comparison with the nuclear industry confirms the overall range and again suggests that a target staffing level of 583 is achievable.

The average cost per employee at Westinghouse is approximately \$59,000 per year, including benefits, taxes, and fee. At the recommended staffing level of about 583 employees, savings, over the current level of 777 employees, amount to approximately \$11.4 million per year. These savings should be available until the Department receives indication from EPA that its application to operate WIPP is likely to be approved. At that time, the Department should re-examine resource requirements and programmatic assumptions, including the projected volume of waste receipts in the initial years of operation, and adjust the staffing level accordingly, using benchmarks and other objective methodologies.

PART III

MANAGEMENT AND AUDITOR COMMENTS

On June 15, 1994, we issued a draft of this report to the Assistant Secretary for Environmental Management. In his response, dated August 8, 1994, the Assistant Secretary stated that the audit's overall methodology was valid and that the use of benchmarks and industry statistics was desirable and appropriate. He disagreed, however, with our recommended 25 percent staffing reduction (to 583 employees) and, instead, targeted a reduction of 15 percent (to approximately 660 employees). The Assistant Secretary indicated that this staffing level assumed a prudent level of risk given the need for WIPP to be operationally ready to receive transuranic waste safely.

The Assistant Secretary expressed the following three main areas of concern with the report's analysis:

- o benchmarks used,
- o validity of the approved schedule (Disposal Decision Plan) and,
- o classification of the WIPP facility.

Management's comments on these areas and the report recommendations, along with our responses, are summarized below. We have also attached, as an Appendix, the text of the Assistant Secretary's comments.

Use of Benchmarks

Management Comments. Management expressed concern about the OIG's application of benchmarks, including comparisons of Westinghouse's administrative staff to known city and state government staffing levels. There was also concern about our interpretation of statistics from the Institute of Nuclear Power Operations. These statistics, for example, were sometimes inconsistent with information compiled by technical specialists who worked on the audit.

Auditor Comments. The strength of this audit's methodology is its multifaceted nature. We have drawn our conclusions based on no single benchmark or expert analysis. Instead, we employed nearly two dozen benchmarks and comparisons, and solicited advice from 11 technical specialists. Moreover, management team members were full participants in the audit, helping us to conduct the analyses and to select the specialists and comparisons used. We agree with management that benchmarks must be carefully applied to a first-of-its-kind facility such as WIPP. For this reason, we not only used many different benchmarks, but we also sought

advice from specialists and overlaid our own analysis to ensure that comparisons were made fairly and appropriately.

With respect to comparisons with city and state governments, the specialist who applied these benchmarks also applied several others, including comparisons to the nuclear industry. To ensure that she was making appropriate comparisons, she also held discussions with other specialists, including those with significant nuclear experience and significant familiarity with WIPP. The OIG arrived at recommended staffing levels only after carefully considering all comparisons and specialists' views.

We employed statistics from the Institute of Nuclear Power Operations as a method of validating the overall staffing ranges suggested by the technical specialists. While there are some differences between the specialist reports and the industry statistics in certain functional areas, there are also a number of similarities, as discussed in the report. Additionally, the industry statistics, taken as a whole, add evidence confirming that the specialists' recommended staffing ranges are reasonable given the requirements and standards of the nuclear operating environment.

Disposal Decision Plan

Management Comments. Management noted that several specialist reports refer to Disposal Decision Plan milestone dates as unrealistic and that the OIG also questioned the viability of WIPP's schedule. Management believes that the milestones are realistic, achievable, and prudent. Further, management stated that the purpose of the audit did not include redefining WIPP's schedule and mission but was, rather, to ensure that the baseline reflected current program and operating policies.

Auditor Comments. While the OIG has concerns about WIPP's schedule, these concerns are not reflected in the recommended staffing level of 583. At that level, our audit work indicated that changes to WIPP's operating assumptions and schedule were unnecessary. We were concerned, however, that an overly optimistic schedule would drive future, premature staffing increases. For this reason, we recommended that future increases be tied to preliminary indications from EPA that the Department's application to operate WIPP will be approved. EPA told us that the working relationship with the Department is sufficiently close to make this recommendation feasible.

As to the audit's purpose, we agree that the objective was not to redefine WIPP's mission. Nevertheless, in an audit of resource requirements, the OIG's responsibility includes determining whether management's assumptions are credible and schedules are realistic.

Classification as a Nuclear Facility

Management Comments. Management was concerned that some of the specialist reports suggested that WIPP should not be classified as a Nuclear facility while WIPP was not receiving radioactive and hazardous waste. There was concern that changing the classification would lessen the standards required, reduce oversight, and potentially increase health, safety, and environmental risk.

Auditor Comments. Some of the specialists indicated that a change in WIPP's classification might be advisable given the uncertainties in the WIPP schedule. Such a change might allow for staffing reductions beyond those reflected in the report. At the recommended staffing level of 583, however, we assumed that WIPP would continue to operate as a non-reactor nuclear facility.

Recommendation 1a

Management Comments. Management did not agree with a recommended staffing level of 583 and, instead, targeted a reduction of 15 percent (to approximately 660 personnel). Management's estimate was based on its review of the OIG's application of benchmarks and technical specialists. Management stated that its staff experts have the best day-to-day knowledge of required resources.

Auditor Comments. After employing the methodologies requested by the Assistant Secretary, seeking advice from specialists recommended or approved by his staff, and working with management to complete a thorough review of WIPP's resource requirements, we reached the conclusion that an appropriate staffing level was approximately 583 personnel. Thus, we believe our estimate is credible and defensible. During our audit, we noted that neither Westinghouse nor Department management had used any similar methodologies to reach their conclusions as to appropriate staffing levels. Nevertheless, a targeted reduction of 15 percent is a good first step by management.

Recommendation 1b

Management Comments. Management did not concur, stating it did not believe EPA would provide a preliminary indication that the Department's application to operate WIPP would be approved. Management said that it was not the regulator's role to provide "programmatic guideposts."

Auditor Comments. In our discussions with the Manager of the Carlsbad Area Office and with EPA, both sides indicated that the working relationship was excellent and that communication was free-flowing. EPA told us that a preliminary indication was

feasible. More importantly, we made this recommendation to help the Department insert more objectivity into future staffing increases, rather than basing them solely on the approved schedule. WIPP's history includes a number of examples of schedules that were not met.

Recommendation 2

Management Comments. Management concurred, agreeing to request temporary waivers from any unnecessary or cost-ineffective DOE orders.

Auditor Comments. Management's proposed actions are responsive to the recommendation.

Recommendation 3

Management Comments. Management partially concurred, stating that it was working with EPA in defining the required schedule and that any necessary changes would be made.

Auditor Comments. Management's proposal to make any required changes to the schedule after completing discussions with EPA is appropriate.

Recommendation 4

Management Comments. Management concurred, agreeing to use benchmarks, comparative statistics, and other performance measures to re-evaluate future Westinghouse staffing requests.

Auditor Comments. Management's proposed actions are responsive to the recommendation.

Other Matters

Management Comments. Management provided a detailed discussion of each of these areas, indicating that the subject matter had been or would be addressed.

Auditor Comments. Management's agreement to address these areas of concern is appropriate.

PART IV

OTHER MATTERS

Internal Control Weaknesses

Based on areas of concern mentioned in the prior OIG and Office of Environmental Management reports, we examined a number of cost centers. We looked at inventory, transportation, purchase of computer equipment, and training. We noted internal control weaknesses in these areas, as summarized below. All of these weaknesses required attention from Westinghouse and Carlsbad Area Office management.

PROPOSED WAREHOUSE CONSTRUCTION

Westinghouse proposed the construction of a warehouse at the WIPP site for Fiscal Year 1996. Construction costs were estimated at about \$1.2 million. The warehouse would be approximately 15,000 square feet, would replace 10,000 square feet of leased storage space in Carlsbad, and was justified on the basis of storing equipment held for future use.

During our audit, we toured the leased space and found that it was not used efficiently. A significant amount of space was dedicated to equipment that was to be excessed. Consumables and spare parts, which could have been moved to existing warehouse space at the WIPP site, were also stored in the warehouse. In addition, the leased space contained DOE documents and Westinghouse library materials. Despite the fact that none of this material was equipment held for future use, we noted that there was significant open floor space and the shelves were only partially full. Since it would take Westinghouse approximately 25 years to recoup the cost of building the new warehouse, we suggest that the construction decision be revisited.

TRANSPORTATION

From August 1993 to July 1994, Westinghouse subcontracted with two companies to provide four buses and six vans to transport contractor employees to and from the WIPP site at a cost to the DOE of \$469,410. Rides were provided free of charge to Westinghouse employees, but were valued at \$1.50 per one-way trip. The \$1.50 per trip was treated as an increase in the employees taxable income.

Westinghouse was required by the Internal Revenue Service to report the value of the benefit given to its employees for free transportation. Although Westinghouse recognized that the transportation was a benefit to its employees, it did not accurately report the value of the rides. We reviewed Westinghouse records for the first six months of Fiscal Year 1994

and found that there were 19,815 rides not reported for tax purposes. Westinghouse personnel responsible for tracking rides said that the equipment used for tracking and recording was not reliable. As a result, Westinghouse failed to attribute \$29,722 of taxable income to its employees for the first six months of Fiscal Year 1994.

COMPUTER EQUIPMENT PURCHASES

The ratio of personal computers to employees appeared excessive. As of May 1994, the ratio was calculated at 1.22 personal computers per Westinghouse employee, compared to a recommended benchmarked standard of approximately .75 computers per employee. Since there were departments at WIPP where not all employees needed a dedicated computer, including mining, maintenance and security, the ratio appeared even more unreasonable.

We concluded that controls over the purchase of personal computer equipment were inadequate. Westinghouse did not have a division that was responsible for managing and coordinating computer equipment purchases. Although the information technology division provided computer maintenance support to departments and made suggestions about purchases, they did not make purchase decisions. Purchase decisions were made by each department manager. As a result, Westinghouse continued to purchase new computers while there were idle computers at the site that could have been used.

TRAINING ADMINISTRATION

In the technical training area, we found both small class sizes and classes of questionable value. The auditors reviewed 272 technical training classes held between January and March 1994. During our review we found that 213 of the 272 classes given, or 78 percent, had fewer than 10 attendees, and the average size of the 213 classes was 5. Furthermore, the frequency of course offerings was quite high, with as many as six offerings in the same month. In addition, classes were offered in skills employees should have had upon entering the job market, including basic math and English courses. Large numbers of poorly-attended classes and classes of questionable value led us to conclude that technical training was not well controlled.

PART V

APPENDIX

(Text of Assistant Secretary's Response)

memorandum

DATE: AUG 08 1994

REPLY TO
ATTN OF: EM-1

SUBJECT: Audit of Selected Aspects of the Waste Isolation Pilot Plant (WIPP) Cost Structure, Carlsbad, New Mexico

TO: John Layton, IG-1

Attached are our comments on the Official Draft Report on the "Audit of Selected Aspects of the Waste Isolation Pilot Plant Cost Structure, Carlsbad, New Mexico."

When we embarked on this unique joint effort, we hoped that by combining the expertise of the audit staff of the Office of Inspector General (OIG) with the program expertise of my staff, and supplementing the team with the specialized knowledge of consultants in technical areas such as mining operation, we would produce a quality audit product. I believe that we have realized that hope.

We also realized that, given the different responsibilities of Environmental Management and OIG, we might differ with regard to specific audit recommendations. That too, is the case. Our differences were fully discussed within the team and in our response to the draft audit report and, ultimately, revolve around the question, what is a *prudent* level of risk in terms of staffing levels, given the need for being operationally ready to receive transuranic waste safely at the WIPP. The alternative views on this issue are well-reflected in the audit report and in our response.

I very much appreciate the hard work of your staff and your personal involvement in this unique audit effort.

Sincerely,

Thomas P. Grumbly
Assistant Secretary for
Environmental Management

Attachment

**ENVIRONMENTAL MANAGEMENT (EM) COMMENTS ON OFFICE OF THE INSPECTOR
GENERAL OFFICIAL DRAFT REPORT ON "Audit of Selected Aspects of the
Waste Isolation Pilot Plant Cost Structure, Carlsbad , New Mexico"**

EM General Comments

EM appreciated the professional relationship with the Office of the Inspector General (OIG) during the joint EM/OIG audit of WIPP. EM's specific comments concerning the text of the draft OIG report were discussed with the OIG office in Albuquerque, NM.

As noted in the responses below, EM's main areas of concern with the OIG's analysis are:

- (1) The benchmarks used,
- (2) the validity of the EM approved schedule (Disposal Decision Plan) and,
- (3) the classification of the WIPP facility.

EM believes that OIG overall methodology is valid and that the use of benchmarks and industry statistics is desirable and appropriate. A benchmark facility is a facility that serves as a standard and has comparable mission, staffing, budget, organizational structure, etc. However, the benchmarks and industry statistics must be used carefully to ensure comparability particularly to a first-of-kind-facility such as WIPP. EM believes that the major differences between the Westinghouse staffing levels recommended by EM and OIG is encompassed in the three concerns identified above. These concerns are addressed in more detail in the EM response to the OIG recommendations.

Use of Benchmarks

The OIG used several benchmarks and industry statistics as a methodology to determine the Westinghouse staffing level for WIPP. The OIG's technical specialists used readily known city and state government administrative staffing levels as benchmarks to compare to Westinghouse administrative staffing levels, but little relationship to WIPP functions or operations was established. Also, the OIG used the Institute of Nuclear Power Operations (INPO) "Survey of Nuclear-Related Employment in the United States" to baseline the WIPP staffing. Using an average distribution of staff allocation within a representative nuclear operation and the existing Westinghouse staffing level, the OIG determined where Westinghouse was overstaffed (the OIG did not include understaffing). The areas of understaffing and overstaffing identified in the INPO comparison were inconsistent with areas identified in their technical specialists' reports (e.g. INPO comparison indicated both operations and quality & regulatory assurance were significantly understaffed while the technical specialist reports indicated significant overstaffing existed in the same areas). No information is provided on the statistical distribution among the utilities themselves, which could vary by 10% to 20% or more from the averages. EM recommends less emphasis of the INPO benchmark in the final report.

The Disposal Decision Plan

Several of the technical specialist reports refer to the schedule as being unrealistic and question whether the WIPP can accomplish its mission on this schedule. The draft OIG report also contains statements that question the viability of WIPP's schedule. The purpose of the joint EM/OIG audit was an effort that would "Ensure that the baseline reflects current program and operating policies ..." (emphasis added). EM's role is to establish the programmatic mission, schedule, and budget for the WIPP project after considering acceptable programmatic risks. The present Disposal Decision Plan represents EM's best estimate of the time schedules for testing, regulation approvals, and operational readiness. While it is certainly possible this schedule may not be met because of unforeseen delays, the risks of having all necessary approvals obtained, waste ready to be shipped from sites around the United States and not being operationally ready is one we feel we cannot prudently assume. The present Disposal Decision Plan and schedule appears, based on the information we have at present, to be realistic, achievable, and prudent.

Classification as a Nuclear Facility

The draft OIG report and several of the technical specialist reports suggested that the WIPP should not be classified as a Nuclear facility while WIPP was not receiving radioactive and hazardous waste. The WIPP has been classified as a non-

reactor nuclear facility in accordance with DOE Order 5480.5. As a result, numerous DOE orders and directives, and Defense Nuclear Facility Safety Board (DNFSB) recommendations apply to WIPP programmatic and operational activities. Our oversight groups expect EM to demonstrate readiness and full compliance with DOE orders, directives, and regulations, including a successful completion of an Operational Readiness Review, along with EPA's approval of DOE's certification application. To change that classification would lessen the standards required, reduce oversight and potentially increase health, safety, and environmental risk.

Staffing Reduction

EM has already reduced the Westinghouse staffing level through attrition by more than 7% from January through June 1994. This attrition was managed carefully using a transition plan. EM believes the OIG should acknowledge this achievement in the final report. EM believes that the Westinghouse staffing level reduction recommended by the OIG is too severe based on the inherent uncertainties of OIG methodology application, the concerns listed above, and the recent more than 7% staffing reduction. Westinghouse staffing level reduction recommended by EM is based on best data available, prudent management judgment and acceptable programmatic risks to complete the WIPP mission /objectives as scheduled on the approved Disposal Decision Plan (DDP).

OIG Recommendation No 1.

Acting through the Manager of the Carlsbad Area Office, direct Westinghouse to:

- a. reduce the Waste Isolation Pilot Plant to approximately 583 full-time equivalent personnel while maintaining the same or a reduced level of subcontractor and temporary personnel; and**
- b. maintain the recommended staffing level at least until the Environmental Protection Agency gives a preliminary indication that the Department application to operate WIPP will be approved.**

EM Response:

1 a. **Nonconcur.** As a result of close cooperation with the Office of the Inspector General (OIG) during the audit and review of the available documentation, EM believes that the OIG recommended Westinghouse staffing level of 583 does not maintain an acceptable level of resources to enable the program to meet EM's objectives and successfully work with oversight groups. EM believes that staffing should be reduced, but to a more moderate level that supports the current mission with an acceptable level of programmatic risk.

Several of the technical specialist reports refer to the schedule as being unrealistic and question whether the WIPP should be considered as a nuclear facility. These comments were prevalent in their reports and their likely acceptance of a schedule slippage potentially affected their recommended staffing levels. The current schedule is supported by Secretary O'Leary. The purposes of the joint EM-OIG Audit as described in the March 7, 1994, letter from Assistant Secretary Thomas P. Grumbly to Inspector General John Layton did not include a redefinition of the schedule and mission for the WIPP. Rather, it purposed an effort that would "Ensure that the baseline reflects current program and operating policies ..." (emphasis added). The WIPP has been classified as a non-reactor nuclear facility in accordance with DOE Order 5480.5. As a result, numerous DOE orders and directives, and Defense Nuclear Facility Safety Board (DNFSB) Recommendations apply to WIPP programmatic and operational activities.

EM staff experts reviewed the OIG technical specialist reports, and evaluated the staffing needs based on the cost effective and efficient completion of the requirements depicted on the Disposal Decision Plan (DDP). Even with the inconsistencies of the results of the OIG's efforts to apply benchmarks and use technical specialists to identify staffing reductions, the EM staff was able to glean useful information to apply in establishing Westinghouse staffing levels. The EM staff experts have the best day-to-day knowledge of the resources required to accomplish the WIPP mission and objectives. EM agrees that a significant reduction (about 15%) in Westinghouse staffing can be accomplished and still achieve the WIPP mission and objectives as depicted on the approved DDP.

EM agrees to immediately schedule an 11% reduction, to be achieved through attrition by June 30, 1995, while targeting a 15% (or more) reduction by September 30, 1995 dependent upon contract reform initiatives and planned programmatic changes (e.g. Systems Prioritization Methods results).

1 b. **Nonconcur.** EM will maintain the staffing level in a cost effective and efficient manner based on programmatic requirements. EPA's role is to review and certify, or not, the WIPP's compliance with the regulatory requirements.

EM's role is to make judgments on these programmatic concerns. EM must make the judgments on when to begin staff adjustments based on the best information available and acceptable programmatic risks. Our oversight groups expect EM to demonstrate readiness and full compliance with DOE orders, directives, and regulations, including a successful completion of an Operational Readiness Review, along with EPA's approval of DOE's certification application. EM does not believe the Environmental Protection Agency (EPA) will provide a preliminary indication that the DOE's application to operate WIPP will be approved. Nor is it the regulator's role to provide such programmatic "guide posts". However, the EM's judgment in the continuing review of the disposal Decision Plan and schedule will be regularly assessed in light of ongoing interactions with the EPA and other factors.

OIG Recommendation No 2.

Work with the Manager, Carlsbad Area Office in determining whether any waivers from DOE orders are necessary to implement the recommended staffing baseline, and if so, to request such waivers.

EM Response:

Concur. EM has the responsibility not to circumvent the high standards expected by the public and the regulator. EM will evaluate the DOE orders applicable to WIPP and request variances for any order that are deemed unnecessary or cost ineffective. Staffing reductions associated with requested variances will be implemented once variances are approved.

OIG Recommendation No 3.

Require the Manager, Carlsbad Area Office to adjust the Disposal Decision Plan to include a realistic schedule for EPA's approval of the Department's certification application. This schedule should include a milestone whereby EPA gives a favorable preliminary indication of its review of the compliance application. Such indication would serve as a trigger for re-evaluating staffing needs to prepare for the first receipt of waste.

EM Response:

Partially Concur. The above recommendation needs to be simplified, as mutually agreed by our offices to state "Make any adjustments necessary to the WIPP Disposal Decision Plan to implement the recommended staffing baseline.". The favorable preliminary indication from EPA was discussed in response to Recommendation No 1 b. The recommended staffing baseline is EM's recommended baseline identified in response to Recommendation No 1 a.

The EM agrees that the DDP should encompass a realistic schedule for EPA's approval; in fact, substantial discussions between the CAO Manager and the requisite EPA official have been conducted and progress has been made in defining the required schedule. Once these discussions are completed the resultant schedule modifications, if any, will be reflected in the revised DDP. However, EM does not agree that an "EPA favorable preliminary indication" milestone should be included in the DDP. Staffing needs must continue to be evaluated and decisions made based upon the programmatic needs to meet the mission/objectives and must be based upon the best professional judgment of the responsible EM managers.

OIG Recommendation No 4.

Require the Manager, Carlsbad Area Office, to critically re-evaluate future Westinghouse staffing requests, using benchmarks, comparative statistics, and other performance measures, to accommodate programmatic changes.

EM Response:

Concur with wording changes mutually agreed by our offices. The recommendation should now state "As appropriate work with the Manager, Carlsbad Area Office to evaluate future Westinghouse staffing requests, using benchmarks, comparative statistics, and other performance measures, to accommodate programmatic changes and schedules."

Office of the Inspector General Notes on Internal Control Weaknesses:

Proposed Warehouse Construction

OIG Position:

Westinghouse proposed the construction of a warehouse at the WIPP site for Fiscal Year 1996. Construction costs were estimated at about \$1.2 million. The warehouse would be approximately 15,000 square feet, would replace 10,000 square feet of leased storage space in Carlsbad, and was justified on the basis of storing equipment held for future use.

During our Audit, we toured the leased space and found that it was not used efficiently. A significant amount of space was dedicated to equipment that was to be excessed. Consumables and spare parts, which could have been moved to existing warehouse space at the WIPP site, were also stored in the warehouse. In addition, the leased space contained DOE documents and Westinghouse library materials. Despite the fact that none of this material was equipment held for future use, we noted that there were significant open floor space and the shelves were only partially full. Since it would take Westinghouse approximately 25 years to recoup the cost of building the new warehouse, we suggest that the construction decision be revisited.

EM Response:

Concern over unnecessary expenditures is always solicited by EM management. After further review, the EM continues to support the expenditure for another warehouse at the site. Formal justification included in the April 1994 Activity Data Sheet (ALWP-3234-04) justifies this warehouse as follows: "A storage facility of approximately 15,000 square feet is required to store materials such as the waste hoist ropes. These ropes are a critical spare part which must be stored in a protected environment to prevent deterioration. This facility would also store spare fiberglass ventilation ducts for the underground repository, electrical cable, electrical / mechanical components, switchgear cabinets, excess furniture, and other material which must be environmentally protected".

The auxiliary warehouse currently leased in town costs approximately \$75 thousand a year which equates to a 15 year pay back instead of the 25 years referred to above. The site warehouse consists of 5,000 square feet and does not provide adequate room for staging, and storage. Generally, there is no room at the site warehouse to store the spare parts and interim storage of in-bound and out-bound materials. (All consumables inventories are located at the site). Some spare parts are currently being temporarily stored in places such as the Remote Handling Bay and the Air Lock to the Waste Handling Building and yard type storage. Current plans require removal of these stored materials by FY97.

EM concurs with the re-evaluations of requirements. As a management practice, all GPP requirements are being reprioritized based upon the Disposal Decision Plan and are re-evaluated at each program / budget review period. EM nonconcurs that this topic should be considered as an internal control weakness.

Transportation

OIG Position:

Westinghouse subcontracted with two companies to provide four buses and six vans to transport employees to and from the WIPP site at a cost to the EM of \$469,410 for Fiscal Year 1994. Rides were provided free of charge per one-way trip. The \$1.50 per trip was treated as an increase in the employees taxable income.

Westinghouse was required by the Internal Revenue Service to report the value of the benefit given to its employees for free transportation. Although Westinghouse recognized that the transportation was a benefit to its employees, it did not accurately report the value of the rides. We reviewed Westinghouse records for the first 6 months of Fiscal Year 1994 and found that there were 19,815 rides not reported for tax purposes. Westinghouse personnel responsible for tracking rides said that the equipment used for tracking and recording was not reliable. As a result, Westinghouse failed to attribute \$29,722 of taxable income to its employees for the first 6 months of Fiscal Year 1994.

EM Response:

As required by the Internal Revenue Service, Westinghouse has provided the system for employees to recognize the value of the transportation benefit. Employees are responsible for reporting these benefits. The Westinghouse employees are therefore responsible for scanning the bus transportation card to acknowledge this benefit.

The potential reasons for the discrepancies between the bus and van company's rider logs and the recording of the bus cards in the scanning system is either (1) failure by the employee to scan his/her card or (2) failure by the bus driver to power on the scanning device. The only instance of mechanical failure by the scanning device in FY94 was during November of 1993. The backup batteries on two vans failed and monthly data was lost.

The EM has requested that Westinghouse recommend improvements to the current system. An alternative under consideration is a bus card. Bus cards would be available in two and sixty ride options. This card would be punched for a ride. At the time of purchase, the bottom half of the card

would be filled out by the employee, signed and submitted to payroll. This signature would authorize the payroll section to impute the value of these rides (\$1.50 each) during the payroll period in which the ticket was purchased.

Computer Equipment Purchases

OIG Position:

The ratio of personal computers to employees appeared excessive. As of May 1994, the ratio was calculated at 1.22 personal computers per Westinghouse employee, compared to a benchmarked standard of approximately 0.75 computers per employee. Since there were departments at WIPP where not all employees needed a dedicated computer, including mining, maintenance and security, the ratio appeared even more unreasonable.

We concluded that controls over the purchase of personal computer equipment were inadequate. Westinghouse did not have a division that was responsible for managing and coordinating computer equipment purchases. Although the information technology division provided computer maintenance support to departments and made suggestions about purchases, they did not make purchase decisions. Purchase decisions were made by each department manager. As a result, Westinghouse continued to purchase new computers while there were idle computers at the site that could have been used.

EM Response:

The current ratio of Westinghouse PCs to personnel is more accurately .9 per employee. Ninety-nine PCs on site are not used as desk top computers, but run process related applications and activities, such as continuous air monitoring (6), instrument support (8), CMR monitoring (4), network training (8), and maintenance terminals for telephones (3). While not everyone on site has or needs a PC in their work area, 169 laptops are in use by individuals and groups to give the capability to perform work away from their base work area. This has provided considerable flexibility and efficiencies in the work place. The 0.90 ratio of PCs to personnel is significantly closer to the stated target of 0.75 per employee, especially considering this ratio is being made during the transition where excess PCs occur as a result of losing over 60 positions.

In June 1993, DOE-AL Management Review Division (MRD) reviewed the Internal Controls established at Westinghouse to acquire, record, utilize and dispose of microcomputers. The final reports states that "MRD concluded that the various independent organizations and committees established at Westinghouse to ensure proper authorization for microcomputer acquisitions, provide reasonable assurance that acquisitions are being made in accordance with prescribed DOE policies and procedures."

Based upon the above information, EM does not concur that this is an internal control weakness area. The Carlsbad Area Office will continue to monitor computer usage to ensure Westinghouse exercise adequate control over computer purchases.

Training Administration

OIG Position:

In the technical training area, we found both small class sizes and classes of questionable value. The auditors reviewed 272 technical training classes held between January and March 1994. During our review we found that 213 of the 272 classes given, or 78 percent, had fewer than 10 attendees, and the average size of the 213 classes was 4. Furthermore, the frequency of course offerings was quite high, with as many as 6 offerings in the same month. In addition, classes were offered in skills employees should have had upon entering the job market, including basic math and English courses. Large numbers of poorly-attended classes and classes of questionable value led us to conclude that technical training was not well controlled.

EM Response:

The data base review by the OIG auditors included both formal and informal training occurrences. The data included over 600 occurrences, but included training for a) self-paced module completions, retests, credit allowances (OJT), and vendor completions of GET200. These are not class room courses and should be eliminated from the data. By eliminating these occurrences and focusing on only formal training, the average attendance level was 9.3 instead of 4.

The average attendance level is not as important as to whether the training provided the desired results. For example, CL1.13 is offered so that the Health Physics Technicians can complete the continuing HP certification . Likewise, frequency is based upon need. The GET 102 required by 29CFR has a very high frequency and a high average class size of 42.

Based upon a review of the facts, the EM feels that a better identification of formal versus informal training should be maintained by Westinghouse. However, the EM does not know of any formal or informal courses which should be deleted or the frequency changed. As the mixture of personnel changes these areas will be reviewed again to ensure appropriate levels, but the EM does not concur that this is an internal control weakness nor should it be reported as such.

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DATE

FILMED

10/24/94

END