

AUDIT REPORT

LAND CONVEYANCE AND TRANSFER AT LOS ALAMOS NATIONAL LABORATORY



APRIL 2000

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
OFFICE OF AUDIT SERVICES

April 28, 2000

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman (Signed)
Inspector General

SUBJECT: INFORMATION: Audit Report on "Land Conveyance and Transfer at Los Alamos National Laboratory"

BACKGROUND

As part of Public Law 105-119 (Act), which was enacted in November 1997, the Department of Energy is to convey tracts of land at or in the vicinity of Los Alamos National Laboratory (Los Alamos) to the Incorporated County of Los Alamos (County) and the Department of Interior, in trust for the Pueblo of San Ildefonso (Pueblo). According to the Act, the conveyed lands shall be used for historic, cultural, or environmental preservation purposes, economic diversification purposes, or community self-sufficiency purposes. The Department of Energy (Department) identified ten tracts of land or approximately 4,000 acres to be transferred.

The Department submitted a Combined Data Report (CDR) to Congress in January 2000. The CDR summarized information regarding environmental restoration or remediation required for the subject tracts and the potential environmental impacts associated with the transfer of the tracts, with total estimated cost of approximately \$383.4 million. Of this total, about \$322.3 million is for actual environmental restoration and remediation costs including decontamination and decommissioning. The remaining \$61.1 million was for landlord costs associated with the process of transferring the land tracts. As of April 2000, these landlord cost estimates were approximately \$32 million, which is \$29 million less than the original estimate in the CDR.

The objective of this audit was to determine whether the Department validated the cost estimates associated with the conveyance and transfer of land at Los Alamos National Laboratory.

RESULTS OF AUDIT

For the ten tracts of land identified for conveyance and transfer at Los Alamos, we found that the Department has validated the environmental restoration and remediation cost estimates but has not validated the cost estimates associated with landlord activities. The Department relied upon Los Alamos personnel to prepare landlord cost estimates instead

of implementing a formal validation process. As a result, the Department had no assurance that the proposed costs for landlord activities reflect the costs to convey and transfer the land at Los Alamos. Subsequent to our fieldwork, the Department obtained limited assurance on the estimated landlord costs and time for completion. However, cost estimates for cultural resource mitigation activities were not reviewed.

MANAGEMENT REACTION

The Department agreed with the finding and recommendations. The Department stated that it will continue to negotiate with the County of Los Alamos, San Ildefonso Pueblo, U.S. Environmental Protection Agency, and the State of New Mexico to minimize costs associated with the conveyance and transfer of land at Los Alamos. In addition, by May 31, 2000, the Department stated that it will have developed a formal plan to validate the cost estimates associated with landlord activities for the conveyance and transfer of land at Los Alamos. The Department also committed to implementing the plan as it negotiates the activities, parcel by parcel, with the appropriate parties and agencies.

Attachment

cc: Deputy Secretary
Under Secretary
Acting Under Secretary for Nuclear Security/Administrator for Nuclear Security

AUDIT OF LAND CONVEYANCE AND TRANSFER AT LOS ALAMOS NATIONAL LABORATORY

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OVERVIEW

INTRODUCTION AND OBJECTIVE

Under Public Law 105-119 (Act), enacted in November 1997, the Secretary of Energy is to convey tracts of land at or in the vicinity of Los Alamos National Laboratory (Los Alamos) to the Incorporated County of Los Alamos (County) and the Secretary of the Interior, in trust for the Pueblo of San Ildefonso (Pueblo). The Act sets forth the criteria, processes, and dates by which the tracts will be selected, titles to the tracts reviewed, environmental issues evaluated, and decisions made as to the allocation of the tracts between the two recipients. According to the Act, the conveyed lands shall be used for historic, cultural, or environmental preservation purposes, economic diversification purposes, or community self-sufficiency purposes. Subsequently, the Department of Energy (Department) identified ten tracts of land or approximately 4,000 acres to be transferred.

In accordance with the Act, the Department submitted a Combined Data Report (CDR) to Congress in January 2000, summarizing information regarding environmental restoration or remediation required for the subject tracts and the potential environmental impacts associated with the transfer of the tracts. According to the CDR, the total estimated cost to restore or remediate and transfer the ten tracts is approximately \$383.4 million. Of this total, about \$322.3 million is for actual environmental restoration and remediation costs (ER costs) including decontamination and decommissioning. The Department is obligated to restore or remediate the ten tracts regardless of whether the land is transferred. The CDR estimated that \$61.1 million would be needed to pay for landlord costs¹ associated with the process of transferring the tracts.

Also, the Act required the County and Pueblo to come to an agreement as to the allocation of land tracts to be conveyed and transferred. This Land Allocation Agreement was submitted to the Secretary of Energy (Secretary) on January 7, 2000. Further, the Act required that the Department prepare and submit a Conveyance and Transfer Plan (CTP) to Congress 90 days after the Land Allocation Agreement was submitted to the Secretary. Although the CTP should have been

¹Landlord costs address cultural resources, consultations for threatened and endangered species and flood plains/wetlands, fencing water resource monitoring stations, moving personnel from one location to another to allow alternative use of a tract, moving air monitors, fencing material disposal areas, and preparing various necessary transfer documents.

submitted to Congress on April 7, 2000, the Department intends to submit the CTP in May 2000. The CTP presents the Department's plan for accomplishing the land transfer within the timeframes established by the Act. Because of refinements in cost estimates by Los Alamos, the current draft of the CTP estimates the landlord costs to be approximately \$32 million, which is \$29 million less than the original estimate in the CDR.

The objective of this audit was to determine whether the Department validated the cost estimates associated with the conveyance and transfer of land at Los Alamos National Laboratory.

**CONCLUSIONS AND
OBSERVATIONS**

Although the Department has validated the ER costs, it has not validated the cost estimates associated with landlord activities for the ten tracts of land identified for conveyance and transfer at Los Alamos. The Department relied upon Los Alamos personnel to prepare landlord cost estimates instead of implementing a formal validation process. As a result, the Department has no assurance that the estimated costs for landlord activities reflect the costs to convey and transfer the land at Los Alamos. Subsequent to our fieldwork, the Department has obtained limited assurance on the estimated landlord costs and time for completion. However, cost estimates for cultural resource mitigation activities were not reviewed.

The audit identified issues that management should consider when preparing its yearend assurance memorandum on internal controls.

(Signed)

Office of Inspector General

VALIDATION OF LAND CONVEYANCE AND TRANSFER COST ESTIMATES

Landlord Cost Estimates Not Validated

The Department has not validated the cost estimates associated with landlord activities for the ten tracts of land identified for conveyance and transfer at Los Alamos. Since the issuance of the CDR, many of the assumptions which effect cost estimates have changed. Los Alamos originally estimated that it would require about \$500,000 to mitigate each cultural resource site. However, in the latest draft of the CTP dated April 2000, Los Alamos revised the estimates on cultural resource mitigation based on the actual type of site to be mitigated and a refined cost based on the type of site. This resulted in an estimate of \$150,000 to remediate a small site. This estimate was then applied to each cultural resource site based on its relative size. Additionally, Los Alamos officials stated that assumptions were made as to the number of cultural sites requiring mitigation based on Los Alamos' discussions with the State Historic Preservation Officer.

Also in the CDR, the landlord costs associated with the Los Alamos Area Office (LAAO) were estimated to be approximately \$15.3 million. This estimate was based on the assumption that providing a new facility for Department personnel was a landlord cost. However, in the draft CTP it was assumed that the cost associated with a new facility should be considered a Department, rather than landlord cost. As a result, total landlord costs for the LAAO in the draft CTP decreased by approximately \$14.7 million. Also in the CDR, the total landlord cost for "Air Resources" for all ten tracts of land was estimated to be approximately \$282,000. This estimate was based on the assumption that transferring some of the tracts would require a change in air monitoring requirements and the relocation of air monitoring equipment. However, the Department stated that until Los Alamos County actually started construction on these lands, there would not be a requirement to move the monitor stations. According to the Department, this assumption was based on input from the U. S. Environmental Protection Agency (EPA) and Los Alamos County. As a result, previous estimates of costs for air resources were removed from the cost estimate in the draft CTP.

Additionally, some assumptions may become invalid as the project proceeds. For example, the estimated cost in the CDR for a TA-74 "Mitigation Action Plan" was \$150,000 and represented an estimate to prepare the Mitigation Action Plan being written for the Conveyance and Transfer Environmental Impact Statement. According to one Los Alamos Official, this estimate was based on an assumption that it would be necessary to conduct some mitigation activities based on a Mitigation Action Plan which has not yet been developed. The Mitigation Action Plan may not require any additional work, and the related cost estimates could be eliminated.

We recognize that cost estimates are subject to change when the bases used to develop the estimates are updated. Additionally, we were informed that the Department has held numerous discussions with Los Alamos regarding the methodology and assumptions used to determine land transfer costs. However, we were concerned that differing estimating approaches and techniques were used in this process. Thus, we concluded that the Department should formally validate the cost estimates to ensure they are complete, reasonable, and supported.

Validation of Cost Estimates Required

DOE Order 5700.2D, "Cost Estimating, Analysis, and Standardization," defines cost estimates as a statement of costs estimated to be incurred in the conduct of an activity. The Order requires that Managers of Department Field Offices develop and maintain local cost guides that outline procedures to be used by operating contractors and Department personnel while reviewing cost estimates. The Order allows for estimates to be in the form of a proposal by contractors. However, in such cases, cost estimates are to be reviewed by someone other than the estimator. It is highly desirable that a third party develop an independent cost estimate to compare to the original estimate for reasonableness.

In addition, DOE Order 130.1, "Budget Formulation", states that the Department shall prepare and submit sound budget requests. As part of this responsibility, budget requests are to be based on cost estimates that have been thoroughly reviewed and deemed reasonable by the cognizant Field Office and Headquarters program organization. Also, the Order assigns responsibility to the Field Office to submit documentation of its budget review of contractor budget estimates to Headquarters. Further, the Management and Operating Contractor is required to establish formal procedures for performing budget process functions which includes preparation of cost estimates and internal validation reviews.

No Formal Validation Process

The Department relied upon Los Alamos personnel to prepare landlord cost estimates instead of implementing a formal validation process. The Department did not use cost guides to review the cost estimates nor did the Department prepare an independent cost estimate for comparison purposes. The Department has not formally reviewed or approved the estimation methods or assumptions used by Los Alamos to derive the estimated landlord costs presented in

either the CDR or the Department's current CTP, both of which must be submitted to Congress. These estimation methods and assumptions used by Los Alamos relate to land usage, time schedules, construction and relocation activities, and cultural resource mitigation activities. Although these estimates were formulated by "knowledgeable" lab personnel, Los Alamos officials acknowledged that the estimates were "first cut assumptions", and "ball park estimates", to be used only for planning purposes.

Additionally, the landlord cost estimates were not formally validated because the Department and Los Alamos were unsure of the County's intended use for the land. Hence, Los Alamos developed and included cost estimates in the CDR although the recipient of the land (either County or Pueblo) was unknown. The Department stated that with the signing of the Land Allocation Agreement in January 2000, cost estimates associated with tracts of land designated for the County have been revised, and negotiations on preservation agreements are being held to further refine these estimated costs.

In contrast to its treatment of the landlord cost estimates, the Department has implemented a process for reviewing, validating, and approving estimated ER costs. The ER costs are consistent with the Department's Environmental Restoration Project Fiscal Year 2000 Life Cycle Baseline, which are supported by Technical Scope Descriptions. The Department reviews Technical Scope Descriptions and determines whether the scope of work outlined is reasonable. Moreover, the Albuquerque Operations Office performed a month-long validation of the information in the baseline for the ten tracts of land identified for conveyance and transfer. This validation included a review of sample costs by independent cost estimators.

Unvalidated Cost Estimates to Congress

The Department has no assurance that the cost estimates for landlord activities reflect the costs to convey and transfer the land at Los Alamos. Subsequent to our fieldwork, the Department obtained limited assurance on the estimated landlord costs and time for completion. However, cost estimates for cultural resource mitigation activities were not reviewed. On April 12, 2000, the Department requested that the U.S. Corps of Engineers (Corps) perform a cursory review of the estimated costs associated with the proposed land transfer. On April 24, 2000, the Corps reported that the estimated cost and time for completion were within reasonable parameters for planned actions. The Corps also noted that its effort was a less than

in-depth review of the cost estimates and that a more detailed review might produce different or additional recommendations.

Despite the recent review by the U.S. Corps of Engineers, many of the landlord costs appeared to be excessive for some tracts when the size and condition of the tracts to be transferred was considered. To illustrate, the estimated landlord cost to transfer Manhattan Monument was \$83,000. The Monument tract is approximately 400 square feet in size, has a plaque covered by a small pavilion, and there is no known contamination associated with this tract. County representatives indicated that the County might be willing to accept the Manhattan Monument without indemnification. Similarly Site 22, which is approximately 6,500 square feet, has a small amount of construction debris and no known contamination. Yet, the landlord cost estimate for this tract is approximately \$120,000. Given the size of these tracts and their acknowledged condition, we concluded that the landlord costs appear out of proportion as currently estimated.

We believe there are other mechanisms to reduce site-specific landlord costs. Two examples which are part of the proposed ten tracts conveyance were TA-74 and White Rock-Y. The County identified "environmental preservation" as the intended use for its portion of these tracts of land. If the Department and the County could agree that these tracts remain "environmental preservation" in perpetuity, Department transfer costs would be reduced significantly. For example, the Department could avoid performing archeological excavation of cultural resources located on these sites saving \$21 million in landlord costs.

Although the estimated landlord costs have not been identified in any Departmental budget request to date, the Department expressed its intent to use these estimates in the formulation of future budgets to fund the activities necessary to transfer the tracts of land. However, no decision has been made whether to fund these conveyance and transfer activities with direct program funds or Los Alamos indirect accounts.

RECOMMENDATIONS

We recommend that the Acting Associate Deputy Assistant Secretary for Facilities Management and ES&H Support:

1. Continue to negotiate with the County, EPA, and the State of New Mexico to minimize costs associated with the conveyance and transfer of land at Los Alamos, and

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2. Implement a formal process to validate the cost estimates associated with landlord activities for the conveyance and transfer of land at Los Alamos.

MANAGEMENT REACTION

Management concurred with the finding and recommendations. The following represents management's comments.

The Department will continue to negotiate with the County of Los Alamos, San Ildefonso Pueblo, EPA, and the State of New Mexico to minimize costs associated with the conveyance and transfer of land at Los Alamos. In addition, by May 31, 2000, the Department will develop a formal plan to validate the cost estimates associated with landlord activities for the conveyance and transfer of land at Los Alamos; the Department will implement the plan as it negotiates the activities, parcel by parcel, with the appropriate parties and agencies.

However, management believed that the OIG's report is premature. While the report accurately states that the Department does not have a formalized process in place for validating landlord cost estimates, management contends that the OIG recommends actions that the Department is pursuing as a matter of course, and which the Department will complete in the near future. Additionally, the Department will be able to provide more accurate, validated cost estimates for landlord activities, after negotiations with the other governmental agencies are completed, and after determinations are made on the extent to which mitigating actions are required to protect cultural and archeological resources. The Department needs to complete serious negotiations with the New Mexico State Historic Preservation Officer, the County of Los Alamos, San Ildefonso Pueblo, and the Bureau of Indian Affairs prior to the formulation and validation of landlord costs which can be expected, to have a degree of correlation to the final actual costs.

Similarly, the Department needs to determine the extent to which additional environmental baseline data is required on a land parcel by land parcel basis in order to form an opinion on the potential risks (and potential future liabilities and costs) associated with indemnification of Los Alamos County.

At this point in time, the Department has been required to provide land transfer cost estimates for Congressional reports, and for budgetary planning. However, the numbers presented in the CDR

and draft CTP were never presented or intended to be budget quality numbers, therefore, the reference in the report to the Department's Budget Process is not applicable. These numbers were estimates and, as such, the Department should have followed the Department Order on Cost Estimates, but it did not because of the continuing discussions with the recipients and government agencies involved, as well as, the continuing changes throughout this land process. The Department has consistently attempted to provide the best cost estimates available for the Environmental Restoration and landlord costs. This is evident in that every report, which is required by the Act, has produced a more thorough and more accurate cost estimate.

The Act provides a schedule for the Secretary of Energy to deliver certain reports to Congress. The due dates for these reports has consistently been out of phase with the time required to complete certain necessary steps that would provide more accurate and validated cost data. For example, the CDR was due to Congress months before the land allocation agreement was signed between Los Alamos County and the Pueblo of San Ildefonso. This land allocation agreement identified the recipient of each land transfer parcel to the Department. This information is critical to the land transfer cost identification and validation process.

In summary, management believes that the land conveyance and transfer process is dynamic, with cost estimates subject to refinement as discussions with the appropriate government agencies and land recipients get finalized. Thus, the OIG report is only a snapshot in time and does not reflect the dynamic process and continuing discussions.

AUDITOR COMMENTS

We consider management's comments to be responsive to the recommendations.

We recognize that the Department has made significant efforts to refine the estimated costs associated with the conveyance and transfer of land at Los Alamos. However, management acknowledged that it has not implemented a formal process to ensure that landlord cost estimates are validated. Since some validation is planned, it would be prudent for the Department to fully incorporate the techniques and concepts identified in the DOE Order on Cost Estimating. Implementing a formal validation process will assist the Department in identifying and planning required mitigation activities, potential risks of indemnification, and negotiation strategies associated with the ten tracts of land identified for conveyance and transfer. Using the Corps of Engineers is a good first step in trying to refine the cost estimates but

the Department needs to identify what additional steps are necessary to ensure that the cost estimates are reasonable and supported.

Although the Department has not included the cost estimates in its budget submissions to date, the Department has been required to provide land transfer and cost estimates in reports to Congress and for budgetary planning purposes. This would indicate that the Congress is interested in the costs associated with these activities and that the Department's future budget requests to Congress may include the necessary funding for the land transfer activities. In this light, the Department should include the requirements of the DOE Order on the Budget Formulation in its validation process to ensure that future budget submissions are supported and are in accordance with Department guidance.

Appendix

SCOPE

The audit was performed from March 16, to April 14, 2000 at Los Alamos, New Mexico; Germantown, Maryland; and Department Headquarters.

METHODOLOGY

To accomplish the audit objective, we:

- Reviewed applicable Department Orders, laws and regulations;
- Reviewed the Combined Data Report (CDR), Conveyance and Transfer Plan (CTP), and supporting documentation for each;
- Interviewed personnel at Headquarters, Albuquerque Operations Office, and Los Alamos; and
- Toured four land tracts identified in the conveyance and transfer – Manhattan Monument, Site 22, TA-74, and LAAO.

The audit was performed in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Accordingly, we assessed the internal controls over the conveyance and transfer of land at Los Alamos. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of the audit. In accordance with the Government Performance and Results Act of 1993, we found there were no applicable performance measures related to conveyance and transfer of land at Los Alamos. We did not extensively rely on computer-generated data.

We held an exit conference with the Office of Facilities Management and ES&H Support on April 26, 2000.

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