U.S. Department of Energy
Office of Inspector General
Office of Audit Services

Audit Report

Reconfiguration of the Kansas City Plant

DOE/IG-0616

August 2003

Department of Energy
Washington, DC 20585

August 13, 2003

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman
Inspector General

SUBJECT: INFORMATION: Audit Report on the "Reconfiguration of the Kansas City Plant"

BACKGROUND

In 1994, the Department of Energy announced its intention to study options for consolidating production operations throughout the complex. In response, the contractor at the Kansas City Plant submitted a plan to significantly reduce the size of its operations. In March 1997, the Department approved Kansas City's Stockpile Management Restructuring Initiative (SMRI), currently estimated to cost $138 million. The Department's approval was based on projected operational savings of $35.4 million per year, generated by consolidating similar production processes and equipment, allowing for a reduction in both the floor space and the workforce needed to achieve required production levels. The Department began restructuring activities in September 1999 and planned to complete the project by the end of September 2005.

As long time advocates of reducing the Department's footprint consistent with its evolving mission, we initiated a review to determine if the Kansas City Plant's restructuring initiative would achieve the intended results.

RESULTS OF AUDIT

We found that the SMRI will not reduce the floor space of the Kansas City Plant as intended. Less than half of the planned 600,000 square feet of floor space will actually be transferred to the General Services Administration; and, rather than being reduced, current staffing levels remain the same as when the restructuring activities began. This occurred because the project was not fully reevaluated when the underlying workload assumptions changed, including the assignment of new missions to Kansas City. Furthermore, the Department did not make full use of project management controls. In particular:

- The project execution plan was not consistent with the work being performed;
- Budget documents did not reflect the actual plan for the project; and,
- Work was included in the project that did not support the intent of the initiative.

To date, the Department has spent $84 million and will not fully achieve the $35.4 million annual projected cost savings, which was the basis for the project's approval. Since an additional $54 million is scheduled to be spent on this project, we believe that the Department should reevaluate the viability of the SMRI.

In recent years, the Department has been reviewing opportunities for reducing the size of its physical infrastructure. We believe that experiences at the Kansas City Plant may provide useful lessons learned which can be utilized at other Departmental facilities.

MANAGEMENT REACTION

In meetings after the release of a draft of this report management expressed general agreement with the recommendations, but had some concern about our conclusions. Specifically, management believed that the SMRI project was still justified and would achieve a projected $30.9 million per year savings, recouping the cost of the project in less than five years beginning in FY 2006. Although management provided this revised savings figure, it is based on workforce reductions that, in our judgment, were not supported by available documentation. Management's summary comments are included in their entirety as Appendix 2.

Attachment

cc: Deputy Secretary
Administrator, National Nuclear Security Administration
Acting Associate Administrator for Management and Administration
Director, Policy and Internal Controls Management, NA-66

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Results of Initiative

The Stockpile Management Restructuring Initiative (SMRI) will not reduce the floor space of the Kansas City Plant as intended. The initial plan called for transferring 600,000 square feet of floor space, almost 20 percent of the occupied space, to the General Services Administration (GSA). However, current project documents showed that the Department of Energy (Department) would only vacate 402,000 square feet, of which GSA will accept only 235,000 square feet, less than 8 percent of the occupied space.

The workforce may also not be reduced to the extent planned. As a direct result of the initiative, the workforce was expected to be reduced by 17 percent, or about 500 people. This reduction was in addition to planned staffing reductions of almost 700 people for downsizing efforts not related to the initiative, such as outsourcing. Our review found that, between November 1997 and September 1999, the workforce had been reduced by 183 people, 57 of which were due to outsourcing. The January 2003 workforce level, however, was the same as it was when the restructuring activities began in September 1999. Further, management did not know if there would be any workforce reductions during the remaining three years of the restructuring initiative.

During the exit conference, management indicated that it planned to reduce the workforce by 60 people by Fiscal Year (FY) 2004.

Project Management Controls

Overall, the Department did not make full use of available project management controls. For example, the Project Execution Plan (PEP), designed to act as the roadmap for the project, was not consistent with the work being performed. The PEP should define how a project will be executed and serve as a key management tool. In this case, the summary and working levels of the PEP for the project did not match. The PEP summary stated that the objective of the project was to reduce the physical size of the plant by 600,000 square feet, whereas the detailed work plan only included activities to vacate 533,000 square feet of space. While the detailed work plan was updated in December 2001 to reflect the plan to vacate a total of 458,000 square feet of space, it did not specify that only 235,000 square feet of that space would be returned to GSA. In March 2003, the Department updated the detailed work plan again to remove an additional 56,000 square feet of work and to acknowledge that almost half of the remaining space to be vacated would be retained by the Department. However, the original square footage error has still not been corrected.

Another management control, the project data sheet, used to keep Congress informed as part of the budget process, did not fully reflect the actual plan for the project. Starting in FY 2001, the project data sheet reported that over 600,000 square feet of space would be vacated.

In FY 2003, the Department reported that the project would return 780,000 square feet of floor space to GSA, much more than both the original 600,000 and the actual 235,000 square feet of floor space being returned. The Department did not indicate that, in reality, less space would be vacated and that almost half of the vacated space will continue to be maintained by the Department. Since GSA informed the Department, in February 1999, prior to the execution of the project, that it would not accept any Department-owned space unless another tenant could be identified, it was unclear why the project data sheet was inaccurate.

The project also included work that did not meet the intent of the initiative. For example, the Department spent $3.1 million preparing to relocate one production activity as part of reducing the plant's footprint. However, the space vacated after moving this activity will remain unoccupied and will not be transferred to GSA as originally planned. Also, although the move appears to offer little future cost savings, the Department plans to spend an additional $3.3 million to purchase new furnaces and move the activity to the new location and $1.25 million to refurbish the vacated space. In another case, the Department spent $1.9 million preparing new office space while other office space remained vacant. The Department plans to spend an additional $500,000 to continue office rearrangement activities even though none of the vacated space will be transferred to GSA.

Further enhancements, above and beyond what was necessary for reconfiguration and downsizing of the plant, were made. For example, $6.4 million was included in the initiative to refurbish clean rooms within the electromechanical assembly department. However, during the conceptual design phase, both the local site office and the contractor had recommended that that work not be included in the project since it did not meet the cost savings criteria of the initiative. In addition, the Department tentatively agreed, in February 2003, to reallocate $4.8 million of project funds for the construction of another clean room. Similarly, in December 2001, the Department added $284,000 to the project for the purchase and installation of a new guardhouse that was needed because of changes in security requirements.

When the underlying assumptions for the initiative changed, management did not fully reevaluate the project. For instance, the original plan assumed a workload of 300 units with no new programs or process technologies. Since then, three new stockpile life extension programs have been added and the capacity for the gas transfer system in weapons is also expected to be expanded. In addition, it was assumed that the workload would require 176,000 standard labor hours on a single shift. However, in FY 2002, the Kansas City Plant was operating at 235,000 standard labor hours on multiple shifts. Despite the fact that almost none of the original assumptions remain valid, the Department has not performed a comprehensive review of the project to ensure that its continuation is still justified based on the current situation.

Cost Savings Not Achieved

As a result, the Department may not fully achieve the projected cost savings, which was the basis for the project's approval. Specifically, we concluded that, since the floor space and workforce levels will not be reduced to the extent planned, little, if any, of the anticipated $35.4 million per year cost savings will be realized. In addition, the Department plans to invest up to another $54 million on the project, of which about $22 million will be used for activities that offer little cost saving potential.

RECOMMENDATIONS

We recommend that the Deputy Administrator for Defense Programs:

1. Determine if the SMRI project is still justified.

Based on the results of Recommendation 1, we also recommend that the Manager for the Kansas City Site Office:

2. Reevaluate the remaining work to ensure that it meets the intent of the initiative, and discontinue any work that will not support the intended cost savings;

3. Revise the PEP to reflect the current status of the project;

4. Revise the Congressional project data sheet to reflect the current status of the project; and,

5. Establish adequate internal controls to ensure that future Congressional project data sheets for all projects performed at the Kansas City Plant are accurate.

MANAGEMENT REACTION AND AUDITOR COMMENTS

Management's written comments did not specifically state whether they agreed or disagreed with the findings and recommendations. However, during subsequent discussions with the SMRI project manager of the Kansas City Site Office to clarify management's position, management indicated that they generally agreed with the recommendations, but expressed concern with some of the data in the finding. Specifically, management believed that the avoidable cost amounts were overstated since they were derived from the remaining baseline cost for the project, which included committed funds and contingency. The $54 million remaining baseline includes $16.6 million in committed funds and about $14 million in contingency. In addition, management indicated that the square footage amounts used in the report were slightly inaccurate. For example, management stated that 240,000 square feet was to be transferred to GSA, rather than the 235,000 square feet quoted in the report.

The Office of Inspector General recognizes that the cost amounts included in the report may contain committed funds and contingency. Since certain committed funds and contingency were not broken down into the various project elements, the cost amounts included in the report could not be adjusted to reflect these amounts. Thus, the avoidable costs may be less than the baseline plan for certain project elements. Also, due to discrepancies in the square footage amounts listed in various project documents, we requested that the Department's Kansas City Site Office provide non-rounded square footage amounts for all of the individual areas affected by the project. The square footage amounts used in the report were represented by the Department's SMRI Project Manager as the most accurate amounts available.

Management's specific comments, followed by our responses, are as follows:

Recommendation 1

Determine if the SMRI project is still justified.

Management Comment: Management agreed with the recommendation, stating that they rejustified the project with the approval of the most recent baseline change proposal. According to management, the approval of the change proposal reinforced management's desire to meet the intent of the reconfiguration initiative — cost savings from a reduced footprint. While management agreed that they would not fully achieve the original projected savings, they would still recoup the cost of the project in less than five years with a projected $30.9 million annual savings. These savings are expected to be achieved either through direct workforce reductions or cost avoidance associated with not having to hire additional workforce to support increased mission workload as a result of efficiencies gained through process-based manufacturing. Management took issue with the report's assumption that workforce reductions should be visible during the execution of the project. In addition, management stated that the report did not recognize that critical skills hiring prior to January 2003 had added 159 employees to the workforce. Management felt that the increase should be factored out of the headcount analysis that would otherwise have been considered a headcount reduction. Further, management believed that keeping the headcount at 1999 levels could be viewed as a major success, considering the critical skills headcount increase, the 35 percent workload increase, and addition of new Life Extension Programs.

Auditor Response: While management professed agreement with the recommendation, we believe that the approval of a baseline change does not constitute sufficient rejustification of the SMRI project. A comprehensive review needs to be conducted, which includes validation that workforce reductions or the avoidance of workforce increases will result from the continuation of the SMRI project. As to the projected $30.9 million annual savings, we do not believe that the documentation provided supports management's claims of cost savings. Without further documentation, the estimate used as the basis for the projected cost savings could not be evaluated for reasonableness. Specifically, neither the Department, nor the contractor, could explain how the anticipated workforce reduction amount was calculated or identify the departments that these reductions would come from. In fact, no detail could be provided beyond grouping the reductions into general categories, such as direct labor. Accordingly, without an analysis that shows where reductions could be taken or a plan for when these reductions will occur, it seems very unlikely that the SMRI project would prompt any workforce reductions or prevent any workforce increases.

Further, management indicated that our analysis should include workforce reductions that occurred several years before any work on the project began; and, at the same time, asserted that further reductions could not be expected until after the project was complete. However, it seems implausible that reductions would occur before and after, but not during the project, especially in light of the fact that many elements of the project are complete or near completion. It should also be noted that by acknowledging that 159 of the people that departed represented critical skills that had to be replaced, management has also acknowledged that these reductions could not have been tied to the SMRI project. Finally, management's comments seem to imply that further workforce reductions are planned. During the audit, however, the contractor's human resource manager indicated on several occasions that, even after analyzing the workforce for several months, he could not predict whether the workforce levels would be reduced, increased, or remain constant over the next three years. The manager also stated that it would likely be next fiscal year before this information would be available.

Recommendation 2

> *Reevaluate the remaining work to ensure that it meets the intent of the initiative, and discontinue any work that will not support the intended cost savings.*

Management Comment: Management agreed that reevaluation of the remaining work was an important part of project management and stated that they were continuously reevaluating as part of their normal oversight. For example, in March 2003, management decided not to vacate 56,000 square feet of office space as originally planned since the space would not be transferred to GSA and was needed to support the increased workload. Management reported that the balance of the work was necessary and integral to the execution of the project. They stated that caution needed to be exercised in taking any one element of the project and evaluating its cost saving merits independent of the project as a whole and independent of related program objectives. Management pointed out that the report did not recognize that capacity studies are performed annually and continue to show that the post-SMRI manufacturing areas are still sized to meet the workload associated with these new programs and technologies. Accordingly, management believed it was still in the best interest of the Department to vacate the space consistent with the other initiatives of SMRI to streamline production and support operations for long-term efficiencies. Management also stated that both the Heat Treat and Office Rearrangement projects (two projects cited on page 2 as not meeting the intent of the initiative) were begun prior to the GSA decision in September 2002 to not assume control of Department-owned space. They stated that allowing the Heat Treat area to remain in its current location would negate the possibility of ever returning this floor space to GSA in the future. They reported that the Heat Treat area was also being downsized to increase operational efficiencies and the construction project to prepare the area for Heat Treat relocation had been completed. Finally, management stated that the office rearrangement work would consolidate offices within the main office area.

Auditor Response: Project documents clearly state that the SMRI project "is justified based on operational savings from reconfiguring the [plant]." The project was designed to streamline operations in order to achieve this cost savings goal. Accordingly, management should be able to make a clear link between any work included in the project and the project's goal. Neither the Department, nor the contractor, have demonstrated how the work questioned will streamline operations. Project documents describing the work in the Heat Treat and Office Rearrangement areas indicate that much of the work involved moving people and equipment from one area of the building to another area of the building to facilitate the transfer of the vacated space to GSA, not to streamline operations. The operating efficiency of having vacant areas on the west side of the building versus vacant areas on any other side of the building was not apparent. In addition, the Department knew prior to the start of the project that it was likely that GSA would not accept the transfer of Department-owned space. Despite that fact, the Department did not adjust plans for the Department-owned space until three years into the project.

Recommendation 3

Revise the PEP to reflect the current status of the project.

Management Comment: Management's written comments indicated that all changes to the PEP have been documented and approved through the baseline change proposal process, which incorporates these changes as an appendix to the PEP and by notation to the change control sheet in the PEP. However, management agreed, in subsequent discussions, to correct the original square footage error contained in the PEP.

Auditor Response: We consider management's planned actions responsive to the recommendations.

Recommendation 4

Revise the Congressional project sheet to reflect the current status of the project.

Management Comment: Management's written comments stated that the FY 2004 project data sheet was revised during the audit to reflect the correct footprint reduction estimate and that all other portions of the data sheet reflect accurate information. Management agreed, in subsequent discussions, to revise the FY 2005 data sheet to reflect the removal of additional work in March 2003 and to indicate the amount of space to be transferred to GSA.

Auditor Response: We consider management's planned actions responsive to the recommendation.

Recommendation 5

> *Establish adequate internal controls to ensure that future Congressional project data sheets for all projects performed at the Kansas City Plant are accurate.*

Management Comment: Management agreed with the intent of the recommendation that the internal control structure must ensure accurate data sheets. However, management believed that this control structure was already incorporated into the Department's Planning, Programming, Budgeting and Evaluation methodology.

Auditor Response: Management's current internal control structure has proven to be insufficient to ensure accurate data sheets are produced, since the process allowed incorrect information to be included on SMRI project data sheets since FY 2001. Therefore, improvements to the internal controls, in our judgment, are still needed.

Appendix 1

OBJECTIVE

The objective of the audit was to determine if the Kansas City Plant's restructuring initiative would achieve the intended results.

SCOPE

The audit was performed from October 2002 to February 2003 at the Kansas City Plant, in Kansas City, Missouri. The audit included a review of project planning documents and cost savings analyses.

METHODOLOGY

To accomplish the audit objective, we:

- Reviewed the conceptual design report and project execution plan;
- Evaluated changes to the project since the conceptual design report;
- Reviewed the cost through April 2003 associated with each of the project's work elements;
- Toured the affected areas of the Kansas City Plant;
- Reviewed agreements with GSA; and,
- Interviewed personnel from the Kansas City Plant.

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, the audit included a review of the project management activities associated with the reconfiguration. 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. As part of our review, we also evaluated the Department's implementation of the Government Performance and Results Act of 1993. We found that the National Nuclear Security Administration (NNSA) established specific performance objectives related to the SMRI project. We conducted a limited reliability assessment of computer-processed data used to support workforce reductions and found the data to be sufficiently reliable.

We held an exit conference with NNSA on June 30, 2003.

Department of Energy
National Nuclear Security Administration
Washington, DC 20585

JUN 0 5 2003

MEMORANDUM FOR Frederick D. Doggett
Deputy Assistant Inspector General
for Audit Services

FROM: Michael C. Kane
Acting Associate Administrator
for Management and Administration

SUBJECT: Comments to Draft Report on the Kansas City Plant's Reconfiguration

NNSA has reviewed the Inspector General's (IG's) draft report on the reconfiguration of the Kansas City Plant. We appreciate the opportunity to have reviewed this report. We understand the IG believes that the Kansas City Plant will not realize the reduction in floor space or work force as originally planned and that the initiative is not achieving its intended results. While we understand the IG's premise, NNSA disagrees with the conclusion that we need to reevaluate the Kansas City initiative because of assumptions or that we need to determine if the project is still justified.

The original plant foot print reduction of 600,000 sqft will not be realized. The reduction will only be 409,000 sqft at the same time that workloads have increased. Staffing has remained constant at 1999 levels -- had the workload not increased, Kansas City Plant would have already realized a staffing reduction -- and reductions will not begin to be realized at least until Fiscal Year 2004. The anticipated cost savings will be $145.23 million rather than the original expectation of $152.22 million. The anticipated return on investment will begin at the end of Fiscal Year 2006. The Kansas City Plant reconfiguration initiative will still realize the utilization of less space, have a greater work load, and still have an estimated return of investment in excess of $100 million.

I have attached specific comments that may clarify issues justifiably raised by the IG. I believe that these comments explain the concerns about space being returned to the General Services Administration and other management actions related to this project.

Relating to the recommendations in the draft report, when the Deputy Administrator for Defense Programs approved Baseline Change Proposal - 2, by his signature, he determined that the reconfiguration initiative continues to be justified. The Baseline Change Proposal approval also reenforces management's desire to meet the intent of the reconfiguration initiative–cost savings from a reduced footprint. This Baseline Change Proposal was subsequently incorporated into the Project Execution Plan (PEP) as an appendix to the plan and by notation to the "Change Control" sheet in the actual plan. We believe this to be the intent of the IG's recommendation rather than an intent to republish the plan with each change proposal. The IG's recommendation to update the Project Data Sheet to reflect the current status of the project was accomplished during the review. The update to the data sheet now reflects the correct foot print reduction estimate, in square feet. All other portions of the data sheet reflect accurate information. NNSA agrees with the IG's intent that the internal controls' structure must be such that it ensures accuracy for all aspects of a project to include accurate data sheets. Part of this control structure is incorporated into NNSA's Planning, Programming, Budgeting and Evaluation (PPBE) methodology. (Congressional Project Data Sheets are captured within various aspects of the PPBE processes.)

Should you have any questions, please do not hesitate to contact Richard Speidel, Director, Policy and Internal Controls Management. He may be reached at 202-586-5009.

Attachment

cc: Dr. Beckner, Deputy Administrator for Defense Programs, NA-10
Steve Taylor, Acting Manager, Kansas City Plant Site Office
Dave Marks, Field Chief Financial Officer, SvcCen/NV

IG Report No.: DOE/IG-0616

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