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United States Government Accountability Office
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Congressional Requesters

Subject: *Lawrence Livermore National Laboratory: Further Improvements Needed to Strengthen Controls Over the Purchase Card Program*

The Lawrence Livermore National Laboratory (LLNL) located in Livermore, California is a government-owned, contractor-operated national laboratory of the Department of Energy's (DOE) National Nuclear Security Administration (NNSA).¹ The University of California manages the lab under a cost-reimbursable contract with NNSA. The university is paid a management fee to operate the lab and is reimbursed for all allowable costs charged to the contract.

During the fall of 2002, the Federal Bureau of Investigation began investigating two Los Alamos National Laboratory employees for alleged misuse of lab credit cards. Other allegations of theft and misuse of government funds at Los Alamos soon followed. In light of the problems identified at Los Alamos, you asked us to review selected procurement and property management practices at two DOE and two NNSA contractor labs, including LLNL.²

This report summarizes the information provided during our June 14, 2004 briefing to your staff on these issues as they relate to Lawrence Livermore. The enclosed briefing slides highlight the results of our work and the information provided.³ Specifically, we reviewed LLNL's purchase card program and property management practices to determine whether (1) internal controls over the lab's purchase card (Pcard) program provided reasonable assurance that improper purchases would not occur or would be detected in the normal course of business, (2) purchase card expenditures made under the contract properly complied with lab policies and other applicable requirements and were reasonable in nature and amount and thus were allowable costs payable to the contractor under the contract, and (3) property controls over selected asset acquisitions provided reasonable assurance that

¹The National Nuclear Security Administration (NNSA) was created in fiscal year 2000 as a separately organized agency within DOE. As part of its national security mission, NNSA has responsibility for the institutional stewardship of three national security laboratories.

²The four labs we reviewed were DOE's Lawrence Berkeley National Laboratory and Pacific Northwest National Laboratory, and NNSA's Lawrence Livermore National Laboratory and Sandia National Laboratories.

³Separate briefings were provided for each of the labs reviewed, which we also summarized in separate letters.

accountable assets would be properly recorded and tracked.⁴ Our review covered selected transactions that occurred during fiscal year 2002 and the first half of fiscal year 2003 (October 1, 2001, through March 31, 2003), which were the most current data available when we requested the data for our review. This report also includes five recommendations for action—four related to actions needed to be taken by Livermore and one related to action needed to be taken by the NNSA contracting officer for Livermore.

Results in Brief

LLNL had implemented a number of internal controls over its Pcard program and property management functions. However, weaknesses in LLNL's Pcard program increased the lab's risk of improper purchases. For example, lab policy did not require approving officials to verify purchases listed in the cardholder's transaction summary report against supporting documents, which compromised the effectiveness of the review process in detecting improper purchases. Of the 144 nonstatistically selected transactions obtained through data mining⁵ for fiscal year 2002 and the first half of fiscal year 2003, we found 15 (10 percent) totaling \$23,923 lacked an invoice, credit receipt, or other sales documentation necessary to validate the dollar amount, quantity, and nature of the items purchased. The lack of such documentation minimizes the effectiveness of supervisory review of Pcard transactions. Additionally, during our review period, the lab allowed supplemental labor personnel—staff that worked at the lab for a labor subcontractor and thus were not LLNL employees—to be issued Pcards, but did not have adequate controls in place to help ensure that the Pcards were returned if supplemental employees stopped working at the lab. Instead, it relied on the subcontractor to perform this function, with no oversight by lab employees.

These control weaknesses likely contributed to the \$97,348 in improper, wasteful, and questionable purchases we identified in our review.⁶ While relatively small compared to the approximately \$120 million in purchase card activity that occurred during the review period, it demonstrates vulnerabilities from weak controls that could be exploited to a greater extent. Specifically, 87 of the 144 purchases in the nonstatistical selection we reviewed were for the purchase of controlled items that LLNL's policy requires to be preapproved. Thirty-two of these 87 transactions (37 percent) totaling \$31,571 did not have any evidence of preapproval. We also identified two improper split purchases—that is, groups of two or more similar transactions that were split to circumvent single purchase limits—consisting of 11 transactions totaling \$28,137 from a statistical sample. Further, we considered 11

⁴Throughout this document, references to purchases and transactions refer to those made by the contractor employees of the lab that are charged to the NNSA contract. Although the lab's purchase cards are issued by the contractor, purchases charged to the NNSA contract are ultimately reimbursed and thus paid for by the federal government. Similarly, property purchased that is charged to NNSA becomes government property.

⁵Data mining applies a search process to a data set, analyzing for trends, relationships, and interesting associations. For instance, it can be used to efficiently query transaction data for characteristics that may indicate potentially improper activity.

⁶This is the net total after adjusting for one \$525 purchase that was both improper because the cardholder failed to obtain a required preapproval and wasteful because it was excessive in cost.

transactions totaling \$9,945 to be wasteful because they were excessive in cost compared to other available alternatives and/or were of questionable need. For example, one cardholder spent \$1,559 for a reclining leather chair. While the requester had a documented medical need for a special chair due to back problems, in a similar situation another cardholder purchased an orthopedic chair from a medical supply store for \$599. We considered 12 transactions totaling \$28,220 to be questionable because they were missing key documentation that would enable us or the lab to determine what was purchased, the quantity and cost of the items purchased, and whether the items purchased were proper and reasonable. Because we only tested a small portion of the transactions we identified that appeared to have a higher risk of fraud, waste, or abuse, there may be other improper, wasteful, and questionable purchases in the remaining untested transactions.

Accountable assets we tested generally were properly accounted for and tracked in LLNL's property management system. Out of 144 transactions reviewed, there were 6 transactions for the purchase of 26 accountable assets totaling \$70,048. Of these 26 assets, one item totaling \$3,481 had not been recorded in the property management system.

In response to recent internal audit and other reviews, LLNL management has made a number of improvements to its internal controls that, if properly implemented, should further enhance controls over the Pcard program. However, additional corrective actions are needed to address weaknesses identified.

Recommendations for Executive Action

In order to address the issues identified in our review, we recommend that the Administrator of NNSA direct Lawrence Livermore National Laboratory's Director to take the following four actions to strengthen internal controls over the purchase card program and reduce the lab's vulnerability to improper, wasteful, and questionable purchases.

- Establish policies and procedures requiring that purchasers request and maintain a copy of the detailed sales receipt, invoice, or other independent support showing the description, quantity, and price of individual items purchased.
- Require approving officials to review transaction documentation before approving transactions listed on the cardholders' monthly transaction summary reports. This should include determining that there is independent support for the description, quantity, and price of individual items purchased, and that the cardholder obtained and documented any required preapprovals before purchase.
- Consider modifying the Pcard system so that purchases that are not reconciled timely by the cardholder are charged to a temporary suspense account rather than to each cardholder's default account codes.

- In conjunction with the implementation of the lab's online training and recertification for cardholders and approving officials, include in such training an emphasis on (1) the lab's policy to obtain preapprovals for all purchases of items listed on the controlled items and services list, and (2) consideration of best value in making and approving purchases. Because the controlled items and services list is frequently updated, the training should include reviewing the items on the current list and any recent changes.

We also recommend that the Administrator of NNSA direct the NNSA contracting officer for the lab to review the improper, wasteful, and questionable items we identified to determine whether any of these purchases should be repaid to NNSA.

Agency Comments

We obtained oral comments on a draft of this briefing from NNSA officials. They generally agreed with the findings and recommendations, and indicated that the lab has made a number of improvements to its controls in light of the problems identified at Los Alamos.

We also obtained oral comments from LLNL officials, who disagreed with the recommendations to (1) require sales documentation such as a receipt or invoice and (2) require approving officials to review such documentation before approving purchases. They indicated sales receipts and invoices were not always available and did not feel they were necessary to support purchases. Instead, they felt that as long as the order amount entered into the Pcard system by the cardholder matched the total purchase amount charged by the bank, that was sufficient evidence to support that the purchase was proper.

We disagree. The matching of the total dollar amount of the transaction to the order amount entered by the cardholder without independent evidence of the description, quantity, and price of individual items purchased does not provide sufficient evidence that the items purchased were proper. Because the cardholder enters the order, makes the purchase, and reconciles any differences, a reviewer would not be able to determine if the original order amounts were correct nor whether additional items were purchased under that order. Consequently, sufficient independent evidence for the individual items purchased and corresponding supervisory review of such evidence is necessary to help reduce the risk of improper purchases.

The lab also provided technical and clarifying comments, which we incorporated as appropriate.

Scope and Methodology

To determine if LLNL's internal controls over its Pcard program provided reasonable assurance that improper purchases would not occur or would be detected in the normal course of business, we reviewed LLNL's contract with NNSA and applicable provisions of the DOE Acquisition Regulation (DEAR) and the Federal Acquisition

Regulation (FAR), performed walkthroughs of key processes, interviewed LLNL and NNSA management and staff, and compared the results to the lab's policies and GAO's *Standards for Internal Control in the Federal Government*.⁷ These standards provide the overall framework for establishing and maintaining internal control and for identifying and addressing major performance and management challenges and areas at greatest risk of fraud, waste, abuse, and mismanagement and are based on internal control guidance for the private sector.⁸

To determine whether Pcard expenditures complied with lab policies and other applicable requirements and were reasonable in nature and amount, we performed data mining on fiscal year 2002 and the first half of fiscal year 2003 Pcard transactions to identify indicators of potential noncompliance with policies and procedures and to identify purchases that appeared to be from unusual vendors, purchases made on weekends, during the holidays, or at fiscal-year end, and purchases of attractive assets. Based on the results, we (1) selected a statistical sample of 27 potential split purchases and tested to determine whether they were in fact split purchases, and (2) tested a nonstatistical selection of 144 transactions for evidence of supervisory review and approval, adequacy of supporting documentation, and reasonableness of the purchases.

To determine if property controls over selected asset acquisitions provided reasonable assurance that accountable assets would be properly recorded and tracked, we performed walkthroughs to observe property controls, reviewed property management policies and procedures, tested accountable property items selected in the nonstatistical selection to determine whether these assets had been entered into the lab's property system prior to our review, performed data mining on the property database to identify possible database errors or inaccuracies such as property assigned to terminated employees and multiple property items with the same serial number, and performed a physical observation of selected assets to determine whether they could be properly accounted for.

We requested oral comments on a draft of the enclosed briefing slides from the Administrator of NNSA or his designee and have included any comments as appropriate in the letter and enclosed slides. While we identified some improper, wasteful, and questionable purchases, our work was not designed to determine the full extent of such purchases. We conducted our work on all four labs from March 2003 through May 2004 in accordance with generally accepted government auditing standards.

⁷U.S. General Accounting Office, *Standards for Internal Control in the Federal Government*, GAO/AIMD-00-21.3.1 (Washington, D.C.: November 1999).

⁸*Internal Control—Integrated Framework*, Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its date. At that time, we will send copies of this report to the Ranking Minority Member, House Committee on Energy and Commerce; the Secretary of Energy; the Administrator of NNSA; and the Lawrence Livermore National Laboratory Director. Copies will also be made available to others upon request. In addition, the report will be available at no charge on our home page at <http://www.gao.gov>. If you have any questions about this report, please contact me at (202) 512-9508 or Doreen Eng, Assistant Director, at (206) 287-4858. You may also reach us by e-mail at calboml@gao.gov or engd@gao.gov. Additional contributors to this assignment were Rick Kusman, Delores Lee, Kelly Lehr, Diane Morris, Estelle Tsay, and Eric Wenner.



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Enclosure

List of Requesters

The Honorable Sherwood Boehlert, Chairman
The Honorable Bart Gordon, Ranking Minority Member
Committee on Science
House of Representatives

The Honorable Joe Barton, Chairman
Committee on Energy and Commerce
House of Representatives

The Honorable Jerry Costello
The Honorable James Greenwood
The Honorable W.J. "Billy" Tauzin
House of Representatives

June 14, 2004, Briefing



Lawrence Livermore National Laboratory

Further Improvements Needed to Strengthen Controls Over the Purchase Card Program

Briefing to the Staff of the Committees on Science and
Energy and Commerce, House of Representatives

June 14, 2004



- Introduction and Objectives
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Introduction and Objectives

- The Lawrence Livermore National Laboratory (LLNL) is a government-owned, contractor-operated national laboratory of the Department of Energy's (DOE) National Nuclear Security Administration (NNSA).¹ It is managed by the University of California under a cost-reimbursable contract with NNSA. The university is paid a management fee to operate the lab and is reimbursed for all allowable costs charged to the contract.
- During the fall of 2002, the Federal Bureau of Investigation began investigating two Los Alamos National Laboratory employees for alleged misuse of lab credit cards. Other allegations of theft and misuse of government funds at Los Alamos soon followed.
- In light of the problems identified at Los Alamos, you asked us to review selected procurement and property management practices at two DOE and two NNSA contractor labs, including LLNL.²

¹NNSA was created in fiscal year 2000 as a separately organized agency within DOE. As part of its national security mission, NNSA has responsibility for the institutional stewardship of the three national security laboratories which includes LLNL.

²The four labs we reviewed were DOE's Lawrence Berkeley National Laboratory and Pacific Northwest National Laboratory, and NNSA's Lawrence Livermore National Laboratory and Sandia National Laboratories.



- The objectives of our review at LLNL were to determine whether:
 - Internal controls over LLNL's purchase card (Pcard) program provided reasonable assurance that improper purchases would not occur or would be detected in the normal course of business.
 - Purchase card expenditures made under the contract (1) properly complied with lab policies and other applicable requirements and (2) were reasonable in nature and amount and thus were allowable costs payable to the contractor under the contract.
 - Property controls over selected asset acquisitions provided reasonable assurance that accountable assets would be properly recorded and tracked.



- Our review covered selected transactions that occurred during fiscal year 2002 and the first half of fiscal year 2003 (October 1, 2001, through March 31, 2003), which were the most current data available when we requested the data for our review.
- Throughout this document, references to purchases and transactions refer to those made by the contractor employees of the lab that are charged to the NNSA contract. Although the lab's purchase cards are authorized by the contractor, purchases charged to the NNSA contract are ultimately reimbursed and thus paid for by the federal government. Similarly, property purchased that is charged to NNSA becomes government property.



- LLNL had implemented a number of internal controls over its Pcard program and property management functions. However, weaknesses in LLNL's Pcard program increased the lab's risk of improper purchases. Our review of a nonstatistical selection of 144 transactions, while not projectable to the universe of transactions, indicated a number of control weaknesses. For example,
 - Lab policy did not require approving officials to verify purchases listed in the cardholder's transaction summary report against supporting documents, which compromises the effectiveness of the review process in detecting improper purchases.
 - Fifteen (10 percent) of 144 nonstatistically selected transactions totaling \$23,923 lacked an invoice, credit receipt, or other sales documentation necessary to validate the dollar amount, quantity, and nature of the items purchased.



- During our review period, the lab allowed supplemental labor personnel—staff that worked at the lab for a labor subcontractor and thus were not LLNL employees—to be issued Pcards. However, the lab did not have controls in place to help ensure that the Pcards were returned if supplemental employees stopped working at the lab. Instead, it relied on the subcontractor to perform this function.
- These control weaknesses likely contributed in part to the \$97,348³ in improper, wasteful, and questionable transactions we identified during our review. For example,
 - Eighty-seven of the 144 purchases in the nonstatistical selection we reviewed were for the purchase of controlled items that LLNL's policy requires to be preapproved. Of these 87, 32 transactions (37 percent) totaling \$31,571 did not have any evidence of preapproval.

³This is the net total after adjusting for one \$525 purchase that was both improper because the cardholder failed to obtain a required preapproval and wasteful because it was excessive in cost.



- Two were improper split purchases—that is, groups of two or more similar transactions that were split to circumvent single purchase limits—consisting of 11 transactions totaling \$28,137.
- Eleven transactions totaling \$9,945 we determined to be wasteful because they were excessive in cost compared to other available alternatives and/or were of questionable need. For example, one cardholder spent \$1,559 for a reclining leather chair. While the requester had a documented medical need for a special chair due to back problems, in a similar situation another cardholder purchased an orthopedic chair from a medical supply store for \$599.
- Twelve transactions totaling \$28,220 we considered questionable because they were missing key documentation that would enable us or the lab to determine what was purchased, the quantity and cost of the items purchased, and whether the items purchased were proper and reasonable.



- Accountable assets we tested generally were properly accounted for and tracked in LLNL's property management system. Out of 144 transactions reviewed, there were 6 transactions for the purchase of 26 accountable assets totaling \$70,048. Of these 26 assets, one item totaling \$3,481 had not been recorded in the property management system.
- In response to recent internal audit and other reviews, LLNL management has made a number of improvements to its internal controls which, if properly implemented, should further enhance controls over the Pcard program. We are making five recommendations to address issues raised in our review that require additional action.
- NNSA headquarters officials generally agreed with the findings and recommendations. Lab officials disagreed with recommendations to (1) require cardholders to maintain documentation such as a receipt or invoice and (2) require approving officials to review such documentation before approval, stating such documentation was unnecessary. We disagree, as independent evidence of the description, quantity, and price of individual items purchased and the supervisory review of such evidence is critical to reducing the risk of improper purchases.



- LLNL is a nuclear weapons and research lab located in Livermore, California and has been operated by the University of California since it opened in 1952.
- The lab's 8,900 staff are University of California employees. Its fiscal year 2003 budget was about \$1.6 billion.
- During fiscal year 2002, the lab made about \$80 million in Pcard purchases.
- As of March 2003, the lab had 284 active Pcard users.



- Most cardholders have a \$5,000 or \$10,000 single purchase limit with monthly limits ranging from \$100,000 to \$250,000. Five cardholders have monthly limits from \$500,000 to \$3,000,000 because they purchase specific items for the entire lab (i.e., furniture, shop stock, and library items).
- LLNL's property management department provides policy and oversight for property management at the lab.
- Specific property center representatives within each organization are responsible for coordinating with property management to track the physical assets and ensure that information recorded in the property database for each accountable asset is current.



- Items that qualify as accountable assets are recorded and tracked in the property management system. Accountable assets include:
 - Assets with an acquisition value of \$5,000 or more.
 - Designated “attractive assets”, which are items that are considered susceptible to theft and generally have an acquisition value of \$300 or more, such as computers and digital cameras.
- Lab policy does not allow cardholders to purchase accountable assets with a Pcard unless the cardholder receives prior approval to do so.
- As of June 2003 LLNL’s property management system contained over 61,000 NNSA-owned accountable assets with a total recorded acquisition cost of \$1.3 billion.



To determine if LLNL's internal controls over its Pcard program provided reasonable assurance that improper purchases would not occur or would be detected in the normal course of business, we

- Reviewed LLNL's contract with NNSA and applicable provisions of the DOE Acquisition Regulation (DEAR) and the Federal Acquisition Regulation (FAR),
- Performed walkthroughs of key processes, interviewed LLNL and NNSA management and staff, and compared the results to the lab's policies and GAO's *Standards for Internal Control in the Federal Government*. These standards provide the overall framework for establishing and maintaining internal control and for identifying and addressing major performance and management challenges and areas at greatest risk of fraud, waste, abuse, and mismanagement and are based on internal control guidance for the private sector.⁴

⁴*Internal Control — Integrated Framework*, Committee of Sponsoring Organizations of the Treadway Commission (COSO).



- To test specific control activities and determine whether purchase card expenditures complied with lab policies and other applicable requirements and were reasonable in nature and amount, we first obtained from the lab the database of purchase card transactions for fiscal year 2002 and the first 6 months of fiscal year 2003. We separately obtained from the lab's Pcard issuing bank the total dollar value of Pcard purchases for the period to compare to the database for completeness.

We then selected transactions using the following methods.

- *Data mining.* We performed data mining on the Pcard transaction database to identify potential noncompliance with policies and procedures.
 - We looked for potential split purchases (i.e., groups of two or more similar transactions that potentially were split to circumvent single purchase limits), cardholders with multiple purchase cards, and transactions on cards assigned to employees on leave or former employees.



- Because of the high volume of potential split transactions, we forwarded the results of a statistical sample of potential split purchase transactions to the lab for a response and related documentation that we then used to assess the transactions.
- For all other data mining selections, we forwarded the results that met specific criteria to the lab for a response and related documentation that we used to assess the transactions.
- *Nonstatistical selection.* We performed additional data mining on Pcard transactions to first identify purchases that appeared to be from unusual vendors, purchases made on weekends, during the holidays, or at fiscal year-end, and purchases of attractive assets.
- As these analyses yielded thousands of transactions, we then made a nonstatistical selection of 150 of these transactions totaling \$276,969, taking into account factors such as item description, amount, and frequency of similar purchases, among other things.



- Based on our review of the supporting documents, we determined 6 transactions were reversed by the vendor shortly after the purchases were made. Thus, we eliminated these from further review, reducing the total nonstatistical selection from 150 to 144 transactions.
- We used the 144 transactions to test specific control activities, such as segregation of duties, evidence of supervisory review and approval, and adequacy of supporting documentation, as well as to examine the allowability and reasonableness of the purchases.



- To determine if property controls over selected asset acquisitions provided reasonable assurance that accountable assets would be properly recorded and tracked, we
 - Performed walkthroughs to observe property controls,
 - Reviewed property management policies and procedures,
 - Tested accountable property items selected in the nonstatistical selection to determine whether these assets had been entered into the lab's property system prior to our review,



- Performed data mining on the property database to identify possible database errors or inaccuracies such as property assigned to terminated employees and multiple property items with the same serial number, and
- Performed a physical observation of selected assets to determine whether they could properly be accounted for.
- While we identified some improper, wasteful, and questionable purchases, our work was not designed to determine the full extent of improper purchases. We conducted our work on all four labs from March 2003 through May 2004 in accordance with generally accepted government auditing standards.



During the period of our review, LLNL's internal controls did not provide reasonable assurance that improper Pcard purchases would not occur or would be detected in the normal course of business. Weaknesses we identified included the following:

- **Supervisory Review:** The approving official's review of each purchase card transaction is one of the most important controls to help ensure that Pcard purchases are appropriate. We found that this critical control was compromised because LLNL policy did not require approving officials to verify transactions listed on the cardholders' monthly transaction summary report against the supporting documentation. Without reviewing supporting documentation such as the vendor invoice or receipt, the approving official may not be aware of what specifically was purchased, the quantity, or the dollar amounts.



- Certain transactions, because of the way they were set up by the lab, were not subject to any supervisory review.
 - LLNL's electronic data interchange (EDI) system allowed cardholders to electronically make purchases called "material requests" from certain vendors that had agreements with LLNL. Material requests were limited to certain items in the vendor's catalog as negotiated with the lab. When a cardholder submitted a material request order, the EDI system electronically sent the order to the vendor along with authorization to charge an institutional credit card number.
 - Because these purchases were charged to an institutional credit card number, they did not show up on individual cardholders' monthly transaction summary reports and thus were not reviewed or approved by the cardholders' approving official to determine if there was a legitimate need for the items purchased. Two of the 144 transactions we reviewed were EDI purchases and thus did not have any supervisory review.



- **Transaction Documentation:** We identified several transactions that lacked key supporting documentation to verify specifically what was purchased and the related cost.
 - GAO's *Standards for Internal Control in the Federal Government* states that transactions and other significant events need to be clearly documented, and the documentation should be readily available for examination.
 - LLNL's Pcard policy required each cardholder to maintain the monthly reconciliation reports signed by the cardholder and approving official along with the corresponding backup information (e.g, packing slips, receipts, or invoices) for up to 3 years.



- Out of the 144 transactions we reviewed, 15 (10 percent) totaling \$23,923 lacked an invoice, receipt, or other sales documentation.
 - Without such documentation, the laboratory did not have any independent evidence of the description and quantity of what was purchased and/or the price paid.
 - This lack of documentation was largely due to the fact that the Pcard policy did not require cardholders to request the sales receipts or invoices, if packing slips or order forms were available. However, packing slips do not typically show the costs of the items purchased, and order forms do not represent confirmation of goods actually purchased and received.



Reconciliation of transactions: Cardholders were to reconcile their transactions electronically on the Pcard system to supporting documents weekly to verify that the charges were correct, input the item descriptions, and record the proper account codes for each transaction. If the cardholder did not perform this reconciliation, the Pcard system automatically charged the transactions to the cardholder's default account code which may not be appropriate for each purchase.

- Each cardholder must establish a default account code when they complete the application for a Pcard. The account code determines whether costs are charged to the NNSA contract, a contract for another agency or sponsor, or absorbed by the contractor as in the case of unallowable costs. This code also indicates the specific project or overhead account that the expense is to be charged to.



- Since each cardholder may make purchases for many requesters and purposes, their default codes may not be appropriate for some purchases. For example, if the cardholder's default codes are for a specific NNSA project and they make purchases that are not supposed to be charged to the contract, if they do not perform the monthly reconciliation these purchases will initially be charged to NNSA. If uncorrected, NNSA may reimburse the lab for these non-NNSA expenditures.
- For example, the nonstatistical selection of transactions we reviewed included a \$463 charge that the cardholder did not reconcile because he said he didn't recognize the charge and thus, allowed it to automatically charge to his default account code. Although he erroneously applied a credit received 6 months later from a different transaction to partially offset the charge, the remainder was charged to NNSA via the cardholder's default code, even though NNSA received no benefit from the expense.



Pcards Issued to Supplemental Employees: LLNL subcontracted with certain companies to supply the lab with additional staff to supplement its workforce. These supplemental employees were employees of the subcontractor and not the lab. Until December 2003, the lab allowed supplemental employees to have Pcards. However, the lab did not have controls in place to help ensure that the accounts were cancelled and the Pcards returned if the supplemental employee stopped working at the lab. Instead, it relied on the subcontractor to perform this function.

- During our review period, 31 supplemental employees had active Pcard accounts.



- LLNL did not maintain a database to track supplemental employees' start and termination dates. Instead, it relied on the subcontractor that employed the staff to track this information.
- Although there was an exit checklist to be completed when a supplemental employee left the lab, LLNL also relied on the subcontractor to ensure the checklist was completed and that the purchase cards were turned in. Consequently, the lab could not ensure that Pcards issued to supplemental employees were cancelled timely and returned to the lab upon termination, increasing the risk of improper purchases.



Improper, Wasteful, and Questionable Purchases

We also identified improper, wasteful, and questionable transactions totaling \$97,348⁵ indicating additional areas where controls could be improved.

Improper Purchases: We identified 43 transactions totaling \$59,708 of improper purchases, which we defined as purchases that violated the NNSA contract or lab purchasing policies. Four of these transactions had been discovered as improper by the procurement department's internal review group during its periodic purchase transaction reviews. The improper purchases identified included the following:

⁵This is the net total after adjusting for one \$525 purchase that was both improper because the cardholder purchased a restricted item without preapproval and wasteful because it was excessive in cost.



- *Controlled or restricted items without preapproval.* In the nonstatistical selection of 144 transactions, 87 were for the purchase of items listed on the lab's Controlled Items and Services List (CISL). Of these 87, 32 transactions (37 percent) totaling \$31,571 were improper because they were either restricted items that had not received preapproval as required by lab policy, or were prohibited from being purchased with a Pcard.
 - Four of these transactions totaling \$3,887 were discovered by the lab's internal review process.
 - Examples of the remaining 28 transactions totaling \$27,684 include the following:
 - Eight purchases for catering services and other food items totaling \$9,776, despite the fact food is a restricted item.



Improper, Wasteful, and Questionable
Purchases (cont'd)

- A portable video projector for \$3,481 for which the cardholder did not obtain preapproval, despite the fact video projectors are on the CISL and thus require preapproval.
- A purchase of a laptop case using Paypal, a prohibited third-party payment facilitator. Paypal accepts credit card payments from the purchaser, then remits the proceeds to the vendor who typically does not directly accept credit cards. Because Paypal shows up as the vendor name on the cardholder's statement, and not the vendor that provided the goods or services purchased, there is no way to verify who actually was paid and what was received in return.
- Two purchase transactions for digital cameras costing \$487 and \$1,120. The CISL requires digital cameras over \$300 to be purchased under a different purchase method.



- ***Split Purchases:*** LLNL's Pcard policy prohibits splitting purchases into more than one transaction to circumvent single purchase limits. Using data mining techniques, we identified 210 potential split purchases—that is, groups of two or more similar transactions that potentially were split to circumvent single purchase limits. After selecting a statistical sample of 27 of these potential split purchases, we found 2 were in fact improper split purchases consisting of 11 transactions totaling \$28,137. LLNL's internal reviews had discovered one of these two split purchases totaling \$16,332. Our sample also included one potential split purchase consisting of 8 transactions totaling \$18,108 for which the lab was unable to provide sufficient documentation to determine whether this was in fact a split purchase. Therefore, we considered this to be potentially improper.
- An internal review group in the lab's procurement department performs data mining procedures to identify potential split purchases. They then follow up with identified cardholders to determine whether the purchases were in fact split purchases and to reinforce the policy. Based on the results above, these controls appeared to help minimize the frequency of split purchases.



- **Wasteful Purchases:** Out of 144 transactions, we also identified 11 transactions totaling \$9,945 that we determined to be wasteful—that is, were excessive in cost compared to other available alternatives and/or were of questionable need or both.
 - We considered them excessive in cost when compared to available alternatives that would meet the same basic need, or of questionable need when they appeared to be items that were a matter of personal preference or convenience, were not part of the usual and necessary equipment for the work the employees were engaged in, and/or did not appear to benefit NNSA.



- Two of these transactions totaling \$2,020 were identified by the lab's internal review process or by its internal auditors. These included the following:
 - One purchase of five sets of Bose noise-canceling headsets costing \$299 each. Similar noise-canceling headsets are available from other vendors for \$85-\$150. In March 2004, LLNL implemented a policy requiring all purchase requests for these types of headsets to be reviewed and approved by the Environment, Safety, and Health team before purchase. The contractor subsequently repaid NNSA for the cost of these headsets.
 - One purchase of two air purifiers costing \$262 each from The Sharper Image. We question both the government need for these items and the cost, given that other air purifiers are available for \$100-\$220 and the need for this equipment had not been documented. In March 2004, LLNL began requiring that all purchase requests of air purifiers be reviewed and approved by the Environment, Safety, and Health team before purchase. The contractor subsequently repaid NNSA for the cost of these air purifiers.



- Some of the remaining 9 transactions totaling \$7,925 included:
 - A reclining leather “zero-gravity” chair costing \$1,559. While the requester had a documented medical need for a special chair due to back problems, another cardholder purchased an orthopedic chair from a medical supply store for \$599 to meet a similar need.
 - A beverage-serving cart purchased for a conference room that cost \$1,688. We identified other quality beverage tables and carts available for about \$400.
 - Rain gear purchased for \$460 which included two jackets costing \$150 each and other apparel. We identified other heavy duty work-related rain gear costing from around \$60.
 - \$842 for motivational posters purchased from Skymall costing from \$70 to \$120 each. The same or similar posters were available from other vendors for \$36 to \$68 each.



- **Questionable Purchases:** We identified 12 transactions totaling \$28,220 that we classified as questionable because there was insufficient documentation to determine what was actually purchased, the quantity and cost of items purchased, and whether the purchase was proper and reasonable. These included the following:
 - Two of these transactions totaling \$6,725 were cash advances that were used to purchase money orders from the post office. According to a lab official, the money orders were used to purchase visas from the Russian embassy for a number of LLNL employees scheduled to travel to Russia. However, the cardholder could not provide any receipt from the Russian embassy documenting how the money orders were spent. Without additional supporting documentation, we were unable to verify how the money orders were ultimately used.



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Improper, Wasteful, and Questionable
Purchases (cont'd)

- One transaction was for a total purchase of \$1,388 from REI, an outdoor sporting goods store. The cardholder could not provide the receipt for the purchase. The lab indicated that the purchase was for protective clothing for a qualified emergency response employee who needed to be able to respond to emergencies under all weather conditions. However, without a receipt, there is no independent evidence of what was purchased and thus, we could not determine whether the purchase was reasonable.
- One \$2,000 transaction was for the purchase of 20 \$100 Sears gift certificates. According to the purchase request, these gift certificates were for the Directorate Awards Program. However, LLNL was unable to provide any support indicating the recipients of these awards and whether they were all distributed.



- As mentioned previously, we also identified a potential split purchase that consisted of eight transactions totaling \$18,108 with characteristics similar to a split purchase. However, the lab was unable to provide sufficient supporting documentation to determine whether this was in fact a split purchase. Because of this lack of documentation, we could not determine whether the purchases were proper and therefore also consider these to be questionable.



- These instances of improper, wasteful, and questionable transactions may be attributed in part to inadequate training of cardholders and reviewing officials.
 - Although approving officials were expected to be cognizant of Pcard policies to fulfill their responsibilities as approving officials, training for approving officials was not offered or required until August 2002. Additionally, refresher training courses were not offered or required for approving officials. Instead, Pcard policies and procedures and updates to policies were made available via an internal Web site.
 - Because purchasing requirements often change, adequate training on the proper use of the Pcard for all parties involved in the purchasing process is essential. While updates to Pcard policies were sent to approving officials and made available via an internal Web site, without formal training and refresher courses, Pcard policies and changes are more likely to be forgotten or overlooked.



- While the \$97,348⁶ of improper, wasteful, and questionable purchases identified by GAO are relatively small compared to the \$120 million in purchase card activity at the lab during our review period, they demonstrate vulnerabilities from weak controls that could be exploited to a greater extent. In addition, because we only tested a small portion of the transactions we identified that appeared to have a higher risk of fraud, waste, or abuse, there may be other improper, wasteful, and questionable purchases in the remaining untested transactions.

⁶This is the net total after adjusting for one \$525 purchase that was both improper because the cardholder purchased a restricted item without preapproval and wasteful because it was excessive in cost.



- GAO's *Standards for Internal Control in the Federal Government* requires agencies to establish physical controls to secure and safeguard vulnerable assets. Such assets should be periodically counted and compared to control records. LLNL policy requires that controlled and attractive property be tagged with bar-code property numbers and tracked in the property management system.
- In our review of 144 nonstatistically selected transactions, 6 were for the purchase of 26 accountable property items totaling \$70,048.
 - LLNL property management recorded all of these assets in the property management system except for one item totaling \$3,481. LLNL subsequently entered the item to its property database.
 - We selected all 26 of these assets for physical observation. We physically verified 23 of the assets and reviewed supporting documentation to confirm the status for the remaining 3, 2 of which were off-site and 1—a \$390 cellular phone—which had been reported stolen and was under investigation.



- We also selected five additional items totaling \$5,663 that appeared to be attractive items but were not listed on the attractive items list as items required to be tracked in the property database. We were able to locate all of these items.
- The low incidence of unrecorded items may be attributed to two factors. One, lab policy prohibits the purchase of controlled and attractive items with a Pcard unless the cardholder has obtained prior approval. Secondly, lab officials informed us that, for the past 3 years, a procurement review group has performed periodic unannounced inspections of Pcard packages at central receiving. Since Pcard packages are not normally opened by central receiving, lab officials stated that these inspections have identified accountable assets purchased by cardholders.



According to LLNL management, it has recently implemented several new controls in response to recent Pcard reviews.

- In August 2002, LLNL implemented a policy requiring Pcard approving officials to go through a formal training process on Pcard purchasing policies. Previously, only cardholders were required to have such training. In addition, lab officials stated they are currently in the process of implementing an online training and recertification process for cardholders and approving officials.



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Recent Policy and Procedural Changes
(cont'd)

- The lab's director of internal audit informed us that, following an internal audit review completed in April 2003, the lab began generating a weekly report of unreconciled transactions that were automatically charged to the cardholders' default accounting codes. An internal review group is responsible for reviewing and following up on these items to determine adequate resolution.
- The lab's director of internal audit stated that in October 2003, internal audit provided training to the procurement department on data mining techniques to help procurement better detect improper purchases.
- According to a lab official, all three of the University of California laboratories began using new, consistent criteria for determining sensitive property beginning in October 2003.



- In December 2003 LLNL changed its policy to prohibit non-lab personnel such as supplemental employees from having Pcards. According to LLNL management, all Pcards issued to supplemental employees were cancelled at that time.
- In February 2004, LLNL clarified its guidelines on purchases of catering services made by one of its off-site locations. The revised guidelines included minimum time requirements for business meetings, preapproval requirements, and definitions of visitors. The revisions were made in response to an internal audit of fiscal year 2002 and 2003 off-site catered events that resulted in repaying NNSA \$11,458 for unallowable meal purchases.



- On March 5, 2004, LLNL began requiring formal review and documentation of the Environment, Safety, and Health team's assessment of site conditions and requiring preapproval for all requests to purchase air purifiers and noise-canceling headphones. This change was in response to a recent internal audit review which resulted in the lab repaying NNSA \$5,490 for 11 air purifiers and 9 headphones.
- According to lab officials, the EDI system that charged certain purchases against a central purchase card account rather than individual cardholders' Pcard accounts was eliminated in May 2004. Now, purchases that were made through EDI are to go through a different system that charges the account of the cardholder making the purchase. Thus, such charges would appear on the cardholder's monthly statement for review by their approving official.



- Lab officials also informed us that they expect to implement an automated control in the Pcard system by October 2004 that will flag certain purchases. This systems upgrade is being designed to better alert cardholders and approving officials of purchases that may be in LLNL's restricted or prohibited items list which require preapproval and/or a waiver to purchase with a Pcard.



LLNL has implemented a number of noteworthy internal controls over its Pcard program and property management functions. However, weaknesses in certain control areas made the lab vulnerable to, and in some instances contributed to, improper, wasteful, and questionable purchases. In response to recent audits, the lab has continued to make changes to address certain identified weaknesses. While these are positive steps, further strengthening of controls is needed and management needs to ensure that it gives continued attention to ongoing monitoring of compliance with established policies and procedures.



Recommendations

- We recommend that the Administrator of NNSA direct Lawrence Livermore National Laboratory's Director to take the following four actions to strengthen internal controls over the purchase card program and reduce the lab's vulnerability to improper, wasteful, and questionable purchases.
 - Establish policies and procedures requiring that purchasers request and maintain a copy of the detailed sales receipt, invoice, or other independent support showing the description, quantity, and price of individual items purchased.
 - Require approving officials to review transaction documentation before approving transactions listed on the cardholders' monthly transaction summary reports. This should include determining that there is independent support for the description, quantity, and price of individual items purchased, and that the cardholder obtained and documented any required preapprovals before purchase.



- Consider modifying the Pcard system so that purchases that are not reconciled timely by the cardholder are charged to a temporary suspense account rather than to each cardholder's default account codes.
- In conjunction with the implementation of the lab's online training and recertification for cardholders and approving officials, include in such training an emphasis on (1) the lab's policy to obtain preapprovals for all purchases of items listed on the controlled items and services list, and (2) consideration of best value in making and approving purchases. Because the controlled items and services list is frequently updated, the training should include reviewing the items on the current list and any recent changes.



- We also recommend that the Administrator of NNSA direct the NNSA contracting officer for the lab to review the improper, wasteful, and questionable items we identified to determine whether any of these purchases should be repaid to NNSA.



Agency Comments

- We obtained comments on a draft of this briefing from NNSA officials. They generally agreed with the findings and recommendations, and indicated that the lab has made a number of improvements to its controls in light of the problems identified at Los Alamos.
- We also obtained comments from LLNL officials, who disagreed with the recommendations to (1) require sales documentation such as a receipt or invoice and (2) require approving officials to review such documentation before approving purchases. They indicated sales receipts and invoices were not always available and did not feel they were necessary to support purchases. Instead, they felt that as long as the order amount entered into the Pcard system by the cardholder matched the total purchase amount charged by the bank, that was sufficient evidence to support that the purchase was proper.



- We disagree. The matching of the total dollar amount of the transaction to the order amount entered by the cardholder without independent evidence of the description, quantity, and price of individual items purchased does not provide sufficient evidence that the items purchased were proper. Because the cardholder enters the order, makes the purchase, and reconciles any differences, a reviewer would not be able to determine if the original order amounts were correct nor whether additional items were purchased under that order. Consequently, sufficient independent evidence for the individual items purchased and corresponding supervisory review of such evidence is necessary to help reduce the risk of improper purchases.
- The lab also provided technical and clarifying comments, which we incorporated as appropriate.

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