



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

# Audit Report

## Recovery of Costs for the Proprietary Use of the Advanced Photon Source

DOE/IG-0753

January 2007



## Department of Energy

Washington, DC 20585

January 11, 2007

MEMORANDUM FOR THE SECRETARY

FROM:

*Greg Friedman*  
Gregory H. Friedman  
Inspector General

SUBJECT:

INFORMATION: Audit Report on "Recovery of Costs for the Proprietary Use of the Advanced Photon Source"

### BACKGROUND

The Department of Energy is responsible for the operation of the Advanced Photon Source, a light source user facility at the Argonne National Laboratory. The facility was, until recently, operated for the Department by the University of Chicago. It is currently operated by UChicago Argonne, LLC. Using x-ray beams from the Advanced Photon Source, scientists conduct leading-edge research in areas such as material science, biology, physics and chemistry. The Advanced Photon Source was completed in 1995 at a cost of \$467 million, and it was constructed to operate at an optimal capacity of 70 beam lines. Each beam line provides high intensity x-rays for research in almost all scientific disciplines for government, academia and the private sector. The annual operating budget of the facility is about \$90 million, and the Department's Argonne Site Office administers the contract for Laboratory operations.

Currently, there are 46 beam lines operating at the Advanced Photon Source, and each beam line provides about 5,000 hours of available time for scientific inquiry. Before being allocated beam time, proposals are peer reviewed to ensure scientific and technical merit. Beam time is then allotted for either non-proprietary experiments, in which the results are to be published in scientific journals, or for proprietary experiments, in which the results are retained by users. Departmental and Federal directives require full recovery of operating costs for proprietary usage. We initiated this audit to determine whether the Department was effectively recovering funds to offset operating costs for the proprietary use of the Advanced Photon Source.

### RESULTS OF AUDIT

We determined that the Department was not effectively administering financial controls over proprietary research at the Advanced Photon Source. Specifically, we found that the Laboratory:

- Charged hourly rates for proprietary usage of the Advanced Photon Source that did not sufficiently cover operating costs;



- Routinely reduced the number of hours charged from the time recorded by floor coordinators; and,
- Did not always collect advances for proprietary experiments or bill those conducting proprietary research in a timely manner.

During our review, we noted that the Department had not reviewed Advanced Photon Source charges for proprietary research since its inception in 1995. Additionally, the Laboratory had not established adequate controls to ensure accurate reporting of proprietary usage, require advance payments and bill proprietary users in a timely manner.

As a result, the Department was, in effect, subsidizing scientists conducting proprietary research at Argonne by at least \$3 million from Fiscal Year (FY) 2004 through the first quarter of FY 2006. This was directly due to Argonne's charging policies and procedures. The Department, in essence, also used taxpayer provided funds to "float" experiments that were conducted to benefit for-profit concerns. Until the pricing policies for the Advanced Photon Source are restructured in accordance with Federal requirements and financial controls are improved, the Department will continue subsidizing proprietary researchers. To address this situation, we made recommendations to the Manager of the Argonne Site Office to adjust the rate structure for the Advanced Photon Source, establish controls to accurately record proprietary usage, and improve billing and collection practices.

#### MANAGEMENT REACTION

Management agreed to adjust its proprietary rates over the next two fiscal years to more closely reflect the proprietary users' actual share of operating costs and to take other actions to improve financial controls. However, it disagreed with our conclusion that Argonne's proprietary rates had been understated in the past, and our recommendation that lost collections should be recovered. It maintained that the proprietary rates, which had been in effect for the past ten years, were appropriate for a facility that was in the process of increasing the number of users to full capacity and maximizing the scientific and technical output of the Advanced Photon Source.

While we recognize the importance of the scientific research conducted at the Advanced Photon Source, management's position is not consistent with the Department's policy of recovering the full cost of operations when proprietary research is conducted at its facilities. In our view, since management had not reviewed proprietary rates for over ten years, it could not be assured that the rates were appropriate, or that any needed rate changes would affect the number of users and amount of scientific output. As noted in the report, unlike other users who publish their research data, proprietary users do not share their research results, intending to seek patents and profit from their research. A more detailed summary of management's response and our comments is addressed beginning on page 6 of the report.

Attachment

cc: Deputy Secretary  
Under Secretary for Science  
Chief of Staff  
Chief Financial Officer  
Deputy for Programs, Office of Science  
Acting Manager, Argonne Site Office  
Manager, Chicago Operations Office

**REPORT ON RECOVERY OF COSTS FOR THE PROPRIETARY USE OF THE ADVANCED PHOTON SOURCE**

---

**TABLE OF CONTENTS**

**Proprietary Usage of the Advanced Photon Source**

Details of Finding ..... 1

Recommendations and Comments ..... 6

**Appendices**

1. Objective, Scope, and Methodology ..... 9

2. Proprietary Rage Calculation ..... 11

3. Related Audit Reports ..... 12

4. Management Comments ..... 13

# PROPRIETARY USAGE OF THE ADVANCED PHOTON SOURCE

## Recovery of Proprietary Usage Costs

Argonne National Laboratory (Argonne) was not effectively managing the recovery of operating costs for proprietary research at the Advanced Photon Source (APS). Specifically, we found that Argonne charged an inappropriately low proprietary rate; routinely reduced the number of hours charged to proprietary users from those recorded by its system; and, did not bill in a timely manner or require advanced funding from users.

### Beam Line Use Rates

Argonne charged proprietary users about half of the hourly rate needed to recover the full operating cost of using the APS. Table 1 (below) illustrates the difference in hourly rates charged by Argonne compared to the full operating cost recovery rates during Fiscal Year (FY) 2004 through the first quarter of FY 2006. Overall, Argonne's hourly rate ranged from 45 to 50 percent below the full cost recovery rate.

	FY 2004	FY 2005	FY 2006
Argonne's Hourly Rate to Users	\$211.52	\$216.41	\$222.91
Full Cost Recovery Hourly Rate	\$423.05	\$413.15	\$407.05
<b>Hourly Rate Deficit</b>	<b>\$211.53</b>	<b>\$196.74</b>	<b>\$184.14</b>

While Argonne used an appropriate dollar estimate for operating costs, we found that Argonne used values for both the number of beam lines and the number of beam hours that overstated capacity. Specifically, although the APS has consistently demonstrated that it has only about 42 to 46 beam lines, each with 5,000 hours of beam time that are available each year, Argonne calculated the proprietary rate based on the optimal performance of 70 beam lines each with 6,000 hours of beam time. Consequently, the established proprietary rate did not represent the actual share of operating costs experienced at the APS. Appendix 2 explains more fully our calculation of the full operating cost recovery rates.

### Beam Line Hours

Further, Argonne could not be assured that it had charged proprietary researchers for the correct number of hours used on the APS. Specifically, Argonne routinely reduced the number of hours charged to users from the time recorded by its floor coordinators based upon users' contention that experiments were ended early or that hours were incorrectly recorded. Although users are required to provide real-time notification to Argonne floor coordinators when experiments begin and end, we found that Argonne reduced the billable hours even when coordinators had not been notified at the time of the experiment.

---

For example, during calendar year 2005, Argonne adjusted the reported usage of the APS based on user responses to a system-generated billing notification for more than 67 percent of the 270 proprietary experiments. These adjustments totaled 4,980 hours and reduced the billable hours initially recorded in the system by 39 percent. To determine the adequacy of the system, we reviewed a sample of 30 proprietary experiments reported during calendar year 2005. Our review identified 14 experiments with 522 hours in billable hour reductions for which the user contended that the end time and date entered by the floor coordinator were incorrect or where recording errors were made. Examples of the proprietary hour adjustments included:

- 97 hours reduced to 1 hour of proprietary usage. The user contended that the "automated system mis-recorded our proprietary declaration." The user supposedly talked with the floor coordinator, but was not sure who the floor coordinator was.
- 52 hours reduced to 14 hours of proprietary usage. The user claimed that the experiment had ended early and he had only used the beam two days instead of the three days recorded. However, the floor coordinator was not contacted when the experiment was completed.

Finally, we also noted that, during calendar year 2005, one automated experiment station accessed the APS main beam line for 1,464 hours that were not claimed as proprietary use, although the research performed is predominately proprietary. According to management, the user was not conducting experiments the entire time, but received the beam to maintain a constant heat load on its optics. If it shut off the main beam, the user would need about an hour of beam time to heat the optical components.

#### Billings and Advances

Argonne did not bill in a timely manner and did not always establish advances for proprietary experiments. Although Argonne's goal is to bill within 60 days, proprietary experiments were not billed for an average of 211 days until after the experiment ended during the period of October 2003 through December 2005. Although it has not met its 60 day billing goal, Argonne has improved the timeliness of its billing and reduced the time it took to bill for proprietary experiments to 118 days, on average, for experiments conducted during the first quarter of Fiscal Year 2006.

---

Argonne also allowed proprietary experiments to start or continue without advanced funding required by both Departmental and Federal directives. The use of the Department of Energy's (Department) resources to finance proprietary usage of the APS is prohibited by Department's Accounting Handbook, Chapter 13, *Reimbursable Work, Revenues, and Other Collections*, and the Office of Management and Budget's Circular A-25, *User Charges*. However, in a judgmental sample of 60 of the 481 billed experiments, we found that 49 did not have advances established until an average of 243 days after the experiment was completed. Although the advances were in place for the other 11 experiments, Argonne had not applied the billings against the advance until an average of 169 days after the end of the experiments. In both situations, the Department's resources were used to offset missing or unapplied advances.

### **Administration of Proprietary Usage**

Argonne was not effectively managing the recovery of operating costs associated with the proprietary use of the APS because it did not (a) update and review its basis for the hourly rates charged to proprietary users; (b) establish and enforce controls to accurately record proprietary use; and, (c) establish adequate controls to monitor and detect delinquent proprietary billings and insufficient advances.

#### Hourly Rates

DOE Order 522.1, *Pricing of Departmental Materials and Services*, requires that rates be established to recover the full cost of certain Department products and services, such as proprietary research at the Department's user facilities. Although not prescriptive, the rate should be based on anticipated costs and capacity for each year in order to achieve full cost recovery. However, Argonne's management at the APS did not calculate a rate that would achieve full cost recovery because, in calculating the rate, it used optimal rather than anticipated number of hours and beam lines available, since the inception of the APS in 1995. In contrast, the proprietary rates at Brookhaven's light source are based on current operating capacity.

Although Argonne did not have documentation explaining why it used the optimal capacity, the Deputy Director of the APS said that the number of beam hours originated in the beginning of the project and had not been updated. The official also indicated the maximum number of beam lines may have been originally established as the basis for the hourly rates because of concerns about charging a significantly higher rate during the initial years of



---

operation in which the number of beam lines would have been minimal and when they were encouraging industrial participation at the facility.

Additionally, the Argonne Site Office did not ensure that Argonne's proprietary rates achieved full cost recovery. Although pricing reviews of user charges are required on a biennial basis, the APS proprietary rates were never reviewed. The previous, as well as the most recent Departmental biennial pricing report of December 2005, failed to identify proprietary usage at the APS as an activity requiring a pricing review.

#### Proprietary Hours

Argonne made adjustments to proprietary hours as requested by the users, without question, because it did not enforce its system to record the hours spent on proprietary research and did not require users to certify their proprietary hours. In December 2004, Argonne implemented a proprietary usage system that requires the users to notify APS floor coordinators who record the start and end times in an APS database. However, Argonne did not enforce the requirement. We identified 14 instances out of the 30 experiments where either the floor coordinator was not notified or recording errors were claimed to have been made. In each case, Argonne made subsequent changes to the recorded hours based upon the user contention that fewer hours were actually used in the experiment. The requirement to contact the floor coordinator is crucial to provide confidence in the system to record hours, as no other means were identified which could be used to ensure that all proprietary usage is accurately charged. Since Argonne does not require the user to certify the time recorded, Argonne had limited opportunity to refute contested claims by the users.

Further, the controls were not enforced at the automated experiment station. Although not conforming to Argonne's policy, the team operating this station provided a weekly declaration of proprietary usage hours because contacting the floor coordinator between experiments was impractical. However, as we noted above, the experiment station accessed the main beam line for more hours than declared. Argonne had not considered alternatives to ensure the unclaimed hours were not used for proprietary experiments. For example, the station's operator indicated that the shutter to the main beam line could be closed at the end of the experiments.

---

Billings and Advances

Argonne also did not establish adequate controls over billings and advance activities. While APS management pointed out that diminished employee performance contributed to the untimely billing problem, we noted that Argonne did not have policies or procedures covering these activities. For example, there were no requirements for management to obtain and review aging schedules or status reports, which would show the timeliness of billings or call attention to insufficient user advances. Further, we noted the absence of formal desk procedures detailing how and when to prepare the billings for proprietary usage and monitor the adequacy of advances.

**Recovery of  
Costs and Use of  
Department Funds**

As a result of Argonne not effectively managing the recovery of operating costs, the Department's forgone revenues totaled at least \$3 million during FY 2004 through the first quarter of 2006. As shown in Table 2, had the full cost recovery rate been charged for proprietary usage, the APS could have applied \$3 million to offset its operating costs, safeguards and security costs, and the Department's administrative charge.

**Table 2: Forgone Recovery of Costs Due to Hourly Rate Deficit**

	FY 2004	FY 2005	FY 2006 (1 <sup>st</sup> Qtr)	TOTAL
Hourly Rate Deficit (Table 1)	\$211.53	\$196.74	\$184.14	
Proprietary Hours	5,375	7,143	2,328	
<b>Forgone Recovery of Costs</b>	<b>\$1,136,974</b>	<b>\$1,405,313</b>	<b>\$428,678</b>	<b>\$2,970,965</b>

Until the rate is corrected and controls over the usage recording system are strengthened, the Department will continue to forgo an average of at least \$1.3 million per year. Additionally, the Department is likely to lose an indeterminate amount of revenues until it improves the identification of billable hours due to proprietary usage.

Finally, as a result of Argonne not establishing sufficient advances, we estimate that the Department used its funds to "float" experiment costs of \$370,205 for the 49 sampled experiments that did not have adequate advances.

---

**RECOMMENDATIONS**

We recommend that the Manager, Argonne Site Office:

1. In conjunction with the Chicago Operations Office, conduct pricing reviews of the APS proprietary rates in accordance with DOE Order 522.1 for FY 2006 and future years;
2. Direct Argonne to develop or revise policy and procedures over proprietary activities to ensure:
  - a. Proprietary rates calculations are in accordance with Departmental and Argonne policy;
  - b. Proprietary usage is accurately recorded by requiring, at a minimum, users to certify the beginning and ending times of proprietary experiments and addressing experiment stations that fall outside the typical operating scenario; and,
  - c. Proprietary billings and collections are performed in a timely manner, including the establishment of monitoring and detection controls such as aging schedules, status reports, and desk procedures.
3. Make a determination as to the recovery of lost collections from the University of Chicago due to rate deficits in FYs 2004 through FY 2006 and a loss of billable hours, as appropriate.

**MANAGEMENT  
REACTION AND  
AUDITOR  
COMMENTS**

The Argonne Site Office and Basic Energy Science (BES) generally agreed to implement recommendations to adjust the proprietary rates, improve the recording of billable hours, and to enhance proprietary billings and collections. However, they disagreed with our conclusion that the APS' proprietary rates were understated in the past and our recommendation regarding the recovery of lost collections. Management agreed to comply with DOE Order 522.1 by modifying its proprietary rates over the next two fiscal years to more closely reflect the estimated actual hours and operating beam lines. Management also agreed to direct Argonne to revise its policy and procedures, implement controls to improve the timeliness of collections and require users to electronically certify the time they begin and finish their experiments.

---

However, information provided by management as a supplement to its formal comments indicated disagreement with several points in the report. Management's disagreements, followed by our responses, are detailed below.

Management Comment: Management disagreed with our conclusion that Argonne's proprietary usage rates for FY 06 and earlier were understated. According to management, using the actual number of operational beam lines rather than the projected number of beam lines would unduly penalize the proprietary users while the number of users was being increased to full capacity. Management claimed that there is no official definition of what full cost recovery means for a user facility that does not have the maximum number of users onboard to utilize the facility to its full capacity. Further, management did not agree that research and development costs to optimize the beam line should be included as part of the operating costs. However, it agreed to seek a determination from the Department's Chief Financial Officer (CFO) regarding its proposal to increase the rates over several years while excluding research and development costs from the proprietary rate.

Auditor Comment: Although it disagreed with our conclusion that proprietary rates were understated in the past, management's agreement to adjust the rate and seek a CFO determination is a positive step. Unlike other users that publish their research data, proprietary users do not share their research results, intending to seek patents and profit from the patents. Full recovery of costs, including research and development costs, that benefit proprietary research is necessary to avoid any subsidy of private research at taxpayer expense, as required by Departmental policy. Therefore, we believe it is appropriate to seek recovery of research funds that benefit the proprietary users.

Management Comment: Management determined recovering money lost from the understated rate would show bad faith on the part of Department and not be in its best interest. Management asserted the general user and the taxpayer have benefited from Argonne's policy not to recover full operating costs. It stated that two proprietary users have invested a combined total of over \$19 million in capital and operating cost to provide state-of-the-art beam lines, which are available to APS general users 25 percent of the time. As an example of the benefits of the proprietary use, management stated the potent anti-AIDS drug "Kaletra" was developed in part based on data collected at one of these beam lines. Management believes that neither of these beam lines would exist today had Argonne charged full costs.

---

Auditor Comment: Although we cannot speculate about what proprietary users would have done if faced with higher rates, proprietary users receive substantial value for their use of the APS. Namely, the Department does not require the recovery of depreciation or imputed interest on the Department's \$467 million investment to construct the APS.

Further, we noted that general usage of the beam lines provided by the two proprietary users identified by management were below the 25-percent level for the period we reviewed. During this period, one of the beam lines was being constructed and commissioned, and was not fully staffed. The second proprietary user provided less than one percent of the available beam time to general users because its automated operation restricts the type of samples it can accept. Thus, while it is available as management stated, its functionality to general users is limited.

However, we have clarified our recommendation to focus on the recovery of lost collections due to deficits in the proprietary rate, as well as, the loss of billable hours, from Argonne and not the proprietary users. Specifically, Argonne, as the Department's contractor is required to implement the Department's Orders on full cost recovery for user services paid for by the government. Accordingly, we believe that Argonne is responsible for loss collections due to the Department as a result of services provided to proprietary users at government expense.

Management Comment: Finally, management determined not to recover billable hours. Management believes there is adequate incentive for proprietary users to provide reasonably accurate and honest statements of proprietary beam time use. With respect to the automated beam line mentioned in the report, management stated it would add additional shutter monitors and require software changes to improve monitoring of beam line usage. However, management did not intend to charge users for the beam time used to heat the optics before delivery to the proprietary experiment station.

Auditor Comment: We are concerned that management does not feel justified in making an attempt to collect a portion of the hours related to the automated operation. The APS policy states that the proprietary user fee should be charged for any activity such as experiment setup and mounting and aligning samples that is, or is intended to be, proprietary and the APS is delivering user beam. Thus, we believe the consistent application of APS policy justifies recovering the time used to heat the optics as billable hours.

## Appendix 1

---

### OBJECTIVE

The objective of this audit was to determine whether the Department of Energy (Department) is effectively recovering operating costs for the proprietary use of the Advanced Photon Source.

### SCOPE

The audit was performed between January 2006 and December 2006 at the Advanced Photon Source, located at Argonne National Laboratory in Argonne, Illinois. The scope of the audit included a review of the proprietary use of the Advanced Photon Source from October 1, 2003, through December 31, 2005.

### METHODOLOGY

To accomplish the audit objective, we:

- Researched applicable Federal and Departmental regulations and guidance;
- Reviewed Argonne National Laboratory policies regarding proprietary usage of the Advanced Photon Source;
- Assessed the appropriateness of the methodology used to calculate the proprietary usage hourly rate;
- Tested the effectiveness and efficiency of the proprietary billings;
- Evaluated the adequacy of the system used to determine the duration of proprietary experiments;
- Sampled and tested billings and experiment usage data;
- Held discussion with key Argonne officials and staff;
- Met with Departmental staff from the Argonne Site Office and Chicago Operations Office; and,
- Interviewed proprietary users of the Advanced Photon Source.

The audit was conducted in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulation to the extent necessary to satisfy the audit objective. We assessed the Department's compliance with the *Government Performance and Results Act of 1993*. The Department has established performance measures for the Advanced Photon Source related to its ability to maximize access and utilization. Because our review was limited, it would not necessarily have discovered all internal control deficiencies that may have existed at

## **Appendix 1 (continued)**

---

the time of our audit. In performing this audit, we relied on computer-based data and performed limited testing on the data we considered critical to satisfying the audit objective. We noted inaccuracies in the data obtained on billable hours and, in order to use this data, adjusted the number of billable hours based on our inquiries and reviews of supporting documents. We also requested that the number of billable hours be examined.

An exit conference was held with Argonne Site Office officials on December 11, 2006.

**PROPRIETARY RATE CALCULATION**

We calculated the hourly rate by dividing the anticipated annual operating costs by the anticipated capacity. The anticipated beam lines and hours have consistently reflected actual capacity experienced at the Advance Photon Source.

<b>Table 3: Full Cost Recovery Hourly Rate</b>					
<b>Fiscal Year</b>	<b>Available Beam Lines<sup>1</sup></b>	<b>Available Beam Line Hours<sup>2</sup></b>	<b>Anticipated Capacity</b>	<b>Anticipated Operating Costs<sup>3</sup></b>	<b>Hourly Rate</b>
	(a)	(b)	(c) = (a) * (b)	(d)	(d) / (c)
2004	42	5,000	210,000	\$88,840,342	<b>\$423.05</b>
2005	44	5,000	220,000	\$90,893,792	<b>\$413.15</b>
2006	46	5,000	230,000	\$93,620,605	<b>\$407.05</b>

1. The number of beam lines expected to be available for use during each fiscal year.
2. The number of hours budgeted, scheduled, and provided for each time period.
3. The amount budgeted for facility operations in the upcoming year plus the Safeguards and Security surcharge of 1.2 percent and the Department of Energy's (Department) administration charge of 3 percent. As stipulated in the Department's directive, the cost of depreciation and imputed interest are not to be recovered.



### RELATED AUDIT REPORTS

- *Synchrotron Radiation Light Sources at Lawrence Berkeley National Laboratory and Stanford Linear Accelerator Laboratory* (DOE/IG-0562, July 2002). The audit identified that the beam lines at Berkeley National Laboratory were not being fully utilized. Beam lines were idle 35 percent of the time when 150 scientifically valid research proposals had been rejected. Berkeley did not have a centralized scheduling system and therefore was unaware that additional beam time was available. As a consequence, independent researchers were unnecessarily turned away. In addition, it was noted that the Office of Basic Energy Science did not provide guidance on tracking and reporting actual use of the Synchrotron facilities or establish useful performance measures to evaluate their use. As a result, opportunities to conduct valuable research with the potential to benefit the researcher, the Department of Energy (Department), and the public were lost. The audit recommended the implementation of a centralized scheduling system, and that scheduled time is used in accordance with the schedule; reporting of actual usage; and implementation of performance measures.
- *Peer Reviewed Scientific Literature Generated at the Department's Light Sources* (DOE/IG-0520, August 2001). The audit identified that only 44 percent of the abstracts generated from research performed at the Department's light sources had been available for public dissemination through the Office of Scientific and Technical Information (OSTI). The audit disclosed that abstracts were not available because the Department had not established adequate procedures to ensure that peer-reviewed journal literature for research performed at the light sources was collected in OSTI's *PubSCIENCE* database. Although required to notify OSTI, the laboratories did not notify OSTI of the peer-reviewed journal articles. As a result, researchers did not have full and ready access to valuable government-sponsored research information and that scientific advancement was not fully promoted. The audit recommended that OSTI monitor and obtain the publications being generated from the light sources and obtain published literature from publishers with agreements with OSTI.
- *Cost Sharing at Basic Energy Sciences' User Facilities* (DOE/IG-0441, March 1999). The audit identified the potential for Basic Energy Science to obtain additional funding for user facilities from industry and other agencies that benefit from the facilities. The audit recommended that the Director, Office of Science, consider opportunities to share cost enhancements and perform feasibility studies to obtain cost sharing.



**Department of Energy**

Argonne Site Office  
9800 South Cass Avenue  
Argonne, Illinois 60439

NOV 02 2006

George W. Collard  
Assistant Inspector General  
For Performance Audits  
Office of Inspector General

SUBJECT: DRAFT REPORT ON "AUDIT OF MANAGEMENT CONTROLS OVER PROPRIETARY USAGE OF THE ADVANCED PHOTON SOURCE (APS) AT ARGONNE NATIONAL LABORATORY"

This letter provides the Management Response to the above subject draft audit report for the Office of Basic Energy Sciences (BES) and the Argonne Site Office (ASO). Attached is a detailed Management Response, developed in consultation with BES, providing the rationale for our response to your recommendations. Below we have addressed each of your recommendations in the order given in the report.

**RESPONSE TO RECOMMENDATIONS**

1. In conjunction with the Chicago Operations [sic] Office (CH), conduct pricing reviews of the APS proprietary rates in accordance with DOE Order 522.1 for FY 2006 and future years.

*ASO, with the help of CH, has reviewed the pricing rates for FY 06, and as discussed below, we believe such rates were appropriate. We concur that future pricing rates must be consistent with DOE Order 522.1; however, there is no official prescriptive rate for recovery of costs at a user facility.*

2. Direct Argonne to develop or revise policy and procedures over proprietary activities to ensure:

- a) Proprietary rates calculations are in accordance with Departmental and Argonne policy.

*Agree. ASO will direct ANL to develop revised policy and procedures implementing the attached Management Response regarding the policy on proprietary rate calculations.*

- b) Proprietary billings and collections are performed in a timely manner, including the establishment of monitoring and detection controls such as aging schedules, status reports, and desk procedures; and,

*Agree. Corrective actions have already taken place to ensure that billings and collections are performed in a timely manner.*

- c) Proprietary usage is accurately recorded by requiring, at a minimum, users to certify the beginning and ending times of proprietary experiments and addressing experiment stations that fall outside the typical operating scenario;

A component of the Office of Science

George W. Collard

- 2 -

NOV 02 2006

*Agree. APS has agreed to implement a certification process to ensure that proprietary usage is accurately recorded.*

3. Make a determination as to the recovery of lost collections due to rate deficits in FYs 2004 through FY 2006, as appropriate; and,
4. Make a determination as to the recovery of billable hours.

*Our analysis shows that user contributions far exceed any potential lost collections. In fact, two users have contributed over \$19M in capital and operating cost to provide state-of-the-art facilities that are made available to other users. An attempt to recover "lost collections" would show bad faith on the part of DOE, and we believe recovery is not in the best interest of the DOE program funding the APS. Furthermore, BES and ASO believe that there is adequate incentive for APS proprietary users to provide reasonably accurate and honest statements of proprietary beamtime use, and therefore no recovery should be made.*

If you have any questions, you may contact me at 630-252-2250 or Nancy Oetter at 630-252-2325.

  
A. Creig Zook  
Acting Site Manager

Enclosure:  
As Stated

cc: P. Dehmer, DOE/HQ, SC-22/GTN, w/encl.  
J. M. Gibson, ANL/APS, w/encl.  
M. Bartos, ANL/OCF, w/encl.  
E. O'Connor, ANL/OCF, w/encl.  
L. Novotny, ANL/OTD, w/encl.  
T. Van Deven, OIG, w/encl.  
W. Lubecke, OIG, w/encl.

## CUSTOMER RESPONSE FORM

The Office of Inspector General has a continuing interest in improving the usefulness of its products. We wish to make our reports as responsive as possible to our customers' requirements, and, therefore, ask that you consider sharing your thoughts with us. On the back of this form, you may suggest improvements to enhance the effectiveness of future reports. Please include answers to the following questions if they are applicable to you:

1. What additional background information about the selection, scheduling, scope, or procedures of the inspection would have been helpful to the reader in understanding this report?
2. What additional information related to findings and recommendations could have been included in the report to assist management in implementing corrective actions?
3. What format, stylistic, or organizational changes might have made this report's overall message more clear to the reader?
4. What additional actions could the Office of Inspector General have taken on the issues discussed in this report which would have been helpful?
5. Please include your name and telephone number so that we may contact you should we have any questions about your comments.

Name \_\_\_\_\_ Date \_\_\_\_\_

Telephone \_\_\_\_\_ Organization \_\_\_\_\_

When you have completed this form, you may telefax it to the Office of Inspector General at (202) 586-0948, or you may mail it to:

Office of Inspector General (IG-1)  
Department of Energy  
Washington, DC 20585

ATTN: Customer Relations

If you wish to discuss this report or your comments with a staff member of the Office of Inspector General, please contact Judy Garland-Smith (202) 586-7828.

The Office of Inspector General wants to make the distribution of its reports as customer friendly and cost effective as possible. Therefore, this report will be available electronically through the Internet at the following address:

U.S. Department of Energy Office of Inspector General Home Page  
<http://www.ig.doe.gov>

Your comments would be appreciated and can be provided on the Customer Response Form attached to the report.