

memorandum

DATE: April 30, 2009

Audit Report Number: OAS-L-09-07

REPLY TO

ATTN OF: IG-32 (A08OR024)

SUBJECT: Audit Report on "Controls over Royalty Oil Exchanges"

TO: Deputy Assistant Secretary for Petroleum Reserves

INTRODUCTION AND OBJECTIVE

The Department of Energy's (Department) Strategic Petroleum Reserve (Reserve) was established pursuant to the Energy Policy and Conservation Act of 1975 (Act). The Reserve is an emergency stockpile to be used in the event of a severe disruption in oil supplies. Under the Act, the Department is authorized to hold up to one billion barrels of oil in the Reserve. The Act requires the Department to minimize the cost and adverse market impacts of filling the Reserve. Additionally, the Energy Policy Act of 2005 requires the Department to fill the Reserve to one billion barrels as expeditiously as practicable. The current capacity of the Reserve is 727 million barrels. As of February 28, 2009, the Department reported that the Reserve contained 705.5 million barrels of oil valued at \$20.5 billion.

The Department of the Interior's (Interior) Royalty-in-Kind exchange program has been the Department's primary method of filling the Reserve since 2002. Rather than accepting Royalty oil directly, the Department, through the exchange program, swaps Royalty oil from offshore leases collected by Interior for oil of comparable value. Department officials indicated that Royalty oil is exchanged to minimize market impacts, avoid potential contamination, and facilitate transportation to Reserve sites. Under the exchange program, Interior delivers Royalty oil to market centers where oil contractors take custody of it. These contractors then exchange the oil for oil of a different type or quality and deliver what is referred to as "exchange oil" to the Reserve. Responsible Department officials told us that contracts to exchange Royalty oil are awarded based on an evaluation of competing bids offered by oil contractors. They indicated as well, that the objective is to select the bid representing the best value to the Government as defined in terms of the quality, quantity, and price of the oil offered in exchange for Royalty oil.

Since April 2005, the Department has exchanged about 29 million barrels of Royalty oil. In January 2009, the Department awarded additional contracts as part of its efforts to fill the Reserve to its current capacity. The Department plans to continue to use the exchange program to fill the Reserve to one billion barrels after additional storage capacity is

added. Because of the considerable value of the oil and the importance of the Reserve to United States energy security, we initiated an audit to determine whether controls in place over Royalty oil exchanges were sufficient to protect the Government's interest.

CONCLUSIONS AND OBSERVATIONS

We identified certain controls that may not have been completely effective in ensuring that the Government maximized the benefits of Royalty oil exchanges and reduced the inherent risks of such exchanges. Specifically, the Department had not:

- Established sufficient controls over the quality of pricing data used to evaluate competitive bids;
- Evaluated the cost effectiveness of alternative strategies for the acquisition of oil for the Reserve; and,
- Incorporated specific provisions in exchange contracts to limit the Government's liability resulting from the quantity of oil delivered to the Reserve.

Pricing Data Used to Evaluate Competitive Bids

As part of its bid evaluation process, the Department used oil pricing data developed by a consultant to evaluate competing bids. Working as part of a Federal and operating contactor bid evaluation team, the consultant told us that he developed the pricing data based on published market prices that were adjusted for items such as transportation costs and market information obtained from the oil trading community. We noted, however, that the Department had not: (1) developed written procedures prescribing the methodology to be used in developing pricing data; (2) provided documentation showing the verification of pricing data developed by its consultant; and, (3) established records retention guidelines for documents related to the pricing analysis. As a result, the Department could not demonstrate, and we were unable to confirm, the accuracy of most of the data used in the analyses of recent bids.

In our judgment, the situation we found regarding exchange pricing data was inconsistent with the Standards for Internal Control in the Federal Government that requires managers to establish sufficient controls to ensure the proper execution and appropriate documentation of transactions.

Despite these control and documentation shortcomings, we were able to review pricing data for nine domestic crude streams evaluated in 2005 and 2007. We were able to do so only because market data that included comparable transportation costs was publicly available. In 2007, for each of the nine crude streams, the price developed by the consultant differed from the published market price, with differences ranging from about \$0.44 per barrel (1 percent) to \$6.39 per barrel (12 percent). The three largest price differences reflected errors made by the Reserve's evaluation team. Instead of being market adjusted prices, the prices used to evaluate bids were actually standard prices that had not been updated. Reserve officials were unaware of the errors until we presented

the results of our analysis. Although undetected, in these cases, the errors did not, as best we could determine, affect the selection of the contractor. This was because the data impacted all bidders equally. However, taking a forward perspective and depending on the range of bids and types of errors, the use of inaccurate data in the future could result in a failure to select the best offer.

Management officials told us that they believed that their consultant was well supervised and his work was accurate. Management noted that the consultant worked directly as part of a larger team, was directly supervised by both Federal and Reserve operating contractor personnel and that the pricing data was fully vetted by all members of the evaluation team prior to acceptance. While we agree with the general description of the evaluation team's methodology, the errors found in the small number of transactions we were able to examine led us to conclude that the controls described by management were not entirely effective.

Acquisition Strategies

The Energy Policy Act of 2005 established multiple objectives for the Department, including filling the Reserve expeditiously while minimizing costs and market impacts. The Department, however, had not evaluated the cost effectiveness of alternative strategies for the acquisition of oil for the Reserve in meeting the Energy Policy Act's multiple objectives.

The U.S. Government Accountability Office, for example, questioned the cost effectiveness of the exchange program in its February 2008 testimony before Congress, specifically drawing a contrast to using direct oil purchases as a method of filling the Reserve. Department officials told us that they were cognizant of the information presented in the testimony, but that they had not addressed the question of purchase versus exchange because current Government policy required them to use the exchange program to fill the Reserve. Program officials indicated that they recognized that direct purchases may be a viable method for filling the Reserve but that they lacked authority to use methods other than the exchange program for normal fill operations. Department officials also questioned the feasibility of performing a cost effectiveness review that would compare direct purchases to the exchange program because of the lack of historical data on direct purchases. Department officials stated, however, that they could perform such an evaluation of alternative acquisition strategies, identifying the pros and cons of either approach, when the situational details of each acquisition are better known.

Department officials also noted that the exchange program could be made more cost-effective, if Government policy allowed greater flexibility in the timing of exchanges to take advantage of market conditions. Department officials noted that the Energy Policy Act's requirement to expeditiously fill the Reserve limits its flexibility to time the acquisition of oil. While they recognize that alternative strategies for acquiring oil may be more effective than current practices, Department officials told us that they had been deterred from evaluating alternatives since Government policy had already been established to expeditiously fill the Reserve using the exchange program.

According to the Standards for Internal Control in the Federal Government, managers are required to evaluate program performance. Without an evaluation of the effectiveness of alternative strategies for acquiring oil for the Reserve, policy level decision makers do not have assurance that the current Reserve fill strategy decisions are based on the best available information. Evaluating alternative strategies will become increasingly important given the Department's plans to expand the Reserve and acquire an additional 273 million barrels of oil at an estimated value of about \$16.5 billion.

Contractual Limitation of Liability

The Department also had not included a limitation of liability provision in its exchange oil contracts. Controlling the flow of oil through the pipeline systems can be difficult. The exact amount of oil actually delivered to the Reserve cannot be determined in advance. If excess oil is delivered, the Department is required to pay not only for the amount stipulated by the contract, but also for any excess. The Department believed that the contract language for reconciling delivery differences sufficiently protected the Government's interests. Based on our requested review of pertinent contract language, the Department's Office of General Counsel concluded that a limitation of liability provision would strengthen the Government's position. In response to our audit and under the direction of the Office of General Counsel, the Department incorporated additional language in the January 2009 Request for Offers to address this issue.

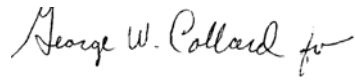
ACCOMPLISHMENTS AND SUGGESTED ACTIONS

This report is our second report on the Reserve's management of the Royalty-in-Kind exchange program. In our prior audit report on the Department of Energy's Receipt of Royalty Oil (DOE/IG-0786, January 2008), we concluded that the Department had not implemented an effective internal control system over the receipt of Royalty oil at market centers. Since the audit, the Department has taken action on our recommendations. Specifically, the Department has modified contract language to require documentation for Royalty receipts, established a reconciliation process with the Department of the Interior, and developed a surveillance program for contractor relationships.

To address the issues identified in this report, we suggest that the Project Manager, Strategic Petroleum Reserve:

1. Develop written procedures prescribing the methodology to be used for establishing the prices of Royalty oil and exchange oil used in evaluating bids;
2. Document the review and verification of pricing data used to evaluate bids;
3. Establish records retention guidelines for documents supporting price analyses; and,
4. Evaluate alternative acquisition strategies for filling the Reserve.

We appreciate the cooperation of your staff and the various Departmental elements that provided information and assistance.



Joanne Hill
Division Director
for Energy Audits Division
Office of Inspector General

Attachment

cc: Office of the Deputy Secretary
Office of the Under Secretary
Office of the Assistant Secretary for Fossil Energy
Deputy Assistant Secretary for Petroleum Reserves
Chief of Staff
Team Leader, Office of Internal Review, CF-1.2

SCOPE AND METHODOLOGY

We completed field work on the subject audit in April 2009. Audit work was conducted at the Department of Energy (Department) Headquarters in Washington, D.C. and the Project Management Office in New Orleans, Louisiana. The scope of the audit was limited to Royalty-in-Kind exchanges from 2002 to 2007. To accomplish the audit objective, we:

- Reviewed essential Royalty-in-Kind program documentation including Memorandums of Understanding, solicitations, and contracts;
- Analyzed the process for determining the price of oil to be used by the Department during offer evaluations;
- Reviewed pricing controls implemented when the Department made direct purchases of oil to fill the Strategic Petroleum Reserve;
- Assessed performance goals for the Royalty-in-Kind exchange program;
- Obtained and reviewed laws, regulations, policies, and procedures relevant to the Strategic Petroleum Reserve;
- Assessed the Department's adherence to Standards for Internal Control in the Federal Government related to documentation processes and performance measurement;
- Reviewed the results of prior audits and reviews;
- Held discussions with Office of Fossil Energy personnel, Strategic Petroleum Reserve personnel, and contractors; and,
- Coordinated with the U.S. Government Accountability Office.

We conducted this performance audit in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. The audit included tests of controls and compliance with laws and regulations related to the Department's Royalty-in-Kind exchange program. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. Also, we considered the establishment of performance measures in accordance with the Government Performance and Results Act of 1993 and concluded that while we did not identify performance measures specific to the Royalty-

in-Kind exchange program, we were able to document measures for the Department's Strategic Petroleum Reserve. Finally, we did not rely on computer processed data to accomplish our audit objective.

An exit conference was held on April 14, 2009.