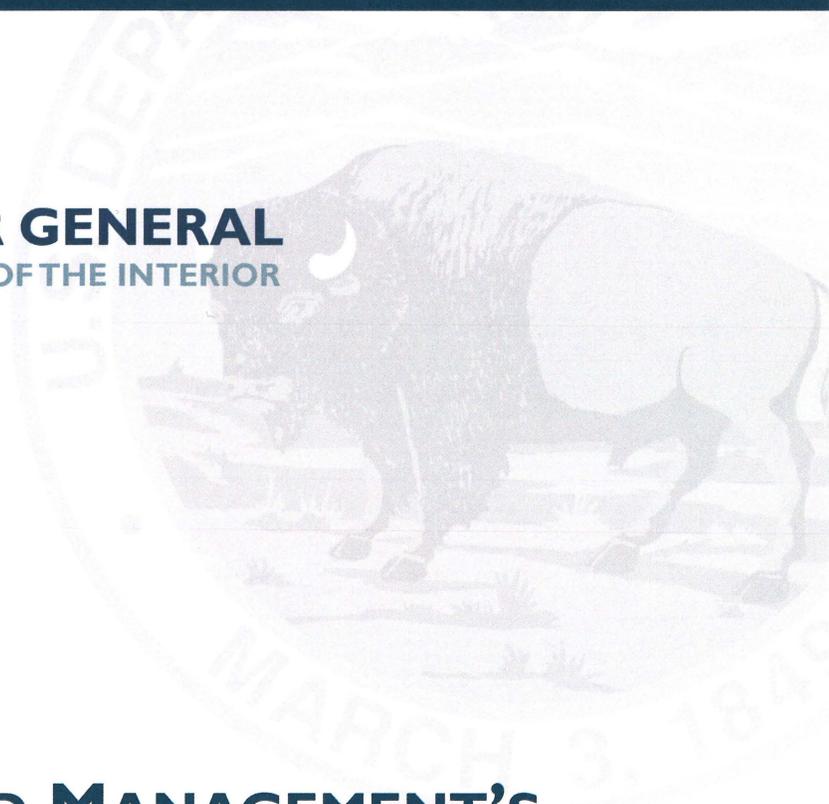




OFFICE OF
INSPECTOR GENERAL
U.S. DEPARTMENT OF THE INTERIOR



BUREAU OF LAND MANAGEMENT'S HELIUM PROGRAM



OFFICE OF
INSPECTOR GENERAL
U.S. DEPARTMENT OF THE INTERIOR

NOV 09 2012

Memorandum

To: Michael J. Pool
Acting Director, Bureau of Land Management

From: Mary L. Kendall *Mary L. Kendall*
Deputy Inspector General

Subject: Final Audit Report – Bureau of Land Management’s Helium Program
Report No. C-IN-MOA-0010-2011

This report presents the results of our audit of helium sales under the direction of the Bureau of Land Management (BLM). BLM has a current inventory of helium valued at approximately \$1 billion, and provides about 40 percent of the Nation’s helium and 30 percent of helium to the world market. Without changes to the program, there is no assurance that BLM’s nongovernmental helium sales occurring over the next 5 to 7 years will be made at market value.

Specifically, we found that BLM does not have the capability needed to identify and maintain market value prices for its helium reserve. The Bureau’s long history of selling helium primarily to Federal buyers through a limited number of private refiners has restricted its ability to determine market value for its sales. High-technology uses have led to a rapid rise in helium demand in recent years, making the determination of market value for the Government’s supply more critical. In addition, BLM is managing nongovernmental helium sales without the formal procedures needed to guide program operations. Our report makes three recommendations to strengthen the Bureau’s management of its helium inventory.

BLM concurred with all of our recommendations in response to our draft report (see appendix 3). Accordingly, we consider all of these recommendations to be resolved but not yet implemented (see appendix 4). No further response to this report is required. We will refer the recommendations to the Assistant Secretary for Policy, Management and Budget to track implementation.

The legislation creating the Office of Inspector General requires that we report to Congress semiannually on all audit reports issued, actions taken to implement our recommendations, and recommendations that have not been implemented.

If you have any questions regarding this report, please call me at 202-208-5745.

Table of Contents

Results in Brief	1
Introduction.....	2
Objective	2
Background	2
Findings.....	4
Obtaining Helium Market Value.....	4
Managing Helium Sales	6
Conclusion and Recommendations.....	7
Conclusion.....	7
Summary of Recommendations	7
Appendix 1: Scope and Methodology.....	9
Scope	9
Methodology	9
Appendix 2: Prior Audit Coverage	10
2008: Immediate Action Needed to Stop the Inappropriate Use of Cooperative Agreements in the BLM’s Helium Program	10
2010: Follow-Up to Office of Policy Analysis Report, “Review of Selective Aspects of the Federal Helium Program”	10
Appendix 3: BLM’s Response.....	11
Appendix 4: Status of Recommendations.....	15

Results in Brief

The Federal Government has effectively controlled the market for helium for almost a century through its position as a predominant supplier. In managing the Federal helium program, the Bureau of Land Management (BLM) has a responsibility to receive a fair return on its helium inventory. At recent BLM prices, sales of its helium inventory would generate about \$1 billion in revenue. Current prices are established based on cost rather than on market value. The market value of BLM's helium inventory will be potentially much higher as new and expanding technologies create significant growth in demand.

Due to existing and potential new pending legislation, BLM likely will sell the vast majority of its remaining helium inventory to private or nongovernmental purchasers by 2020. For each percentage point increase in value, BLM would collect an estimated \$10 million in additional helium revenues. A 25 percent increase would generate \$250 million in additional gross revenues. Depending on what market value is established for helium and the future cost of program operations, BLM could collect this amount or more. To capitalize on this opportunity, BLM needs to identify and to charge market value for all helium sales to nongovernmental purchasers.

Timely action is required to ensure the helium program can operate effectively over the coming years. The program has a current debt of approximately \$44 million, resulting from large helium purchases made in the 1960s. BLM estimates repayment of the debt in 2013. After this repayment, the fund established to support the program will terminate.¹ According to BLM, this would have the effect—absent reauthorization of the fund or other appropriations action—of ending its ability to pay for continuing program operations.

In addition, to better support the sale of helium as a revenue enhancement opportunity, BLM's helium program would benefit from the establishment of formal written procedures for nongovernmental sales to protect against fraud, waste, and mismanagement.

¹ 50 U.S.C. § 167d (e)(2)(B)

Introduction

Objective

To determine whether the Bureau of Land Management (BLM) is charging market value prices for its helium sales to nongovernmental purchasers² and if BLM requires additional program guidance. Helium transfers to Government agencies were not included in the scope of this audit. For the complete scope and methodology of our review, see appendix 1.

Background

Helium, a byproduct of natural gas production, is a critical and nonrenewable natural resource used primarily as a highly effective coolant in high-tech uses. BLM is responsible for selling the Federal inventory of helium and has a supply of approximately 13.5 billion cubic feet. At recent BLM prices, this helium has a value of about \$1 billion. Helium annual sales to Government and to nongovernmental users total about 2.3 billion cubic feet and, in 2011, generated revenues of about \$168 million. BLM currently supplies about 40 percent of the Nation's helium and 30 percent of helium to the world market.

The United States first recognized the value of helium for early military aviation. Current military and Government applications include helium's use as a coolant for rocket engines and research for superconductivity. Private commercial uses include applications for magnetic resonance imaging and production of microchips.

To meet Federal needs in the early 20th century, the Government established a facility near Amarillo, TX, which remains the program's primary operating location. This facility originally produced, refined, and supplied helium for critical Government needs.

The regulatory history of the Government's control of helium production and sales started with the Mineral Leasing Act of 1920. It reserved to the United States the right to extract helium from all natural gas produced under the act.

In 1925, Congress passed the Helium Act. This legislation created the Federal helium program to ensure that helium would be available for purposes of National military defense.

In 1960, Congress amended the Helium Act, authorizing the purchase of a larger inventory of helium to meet anticipated future Government needs. This resulted in the program assuming considerable debt to accomplish the provisions of the amendment.

² BLM refers to these helium sales as conservation crude sales.

In 1996, Congress closed the Bureau of Mines and transferred responsibilities for the Federal helium program to BLM. During that same year, Congress passed the Helium Privatization Act, which was designed, in part, to end the Government's role in producing, refining, marketing, and selling helium by 2015, with the exception of maintaining a small reserve for Federal purposes. Currently, BLM sells its helium to four nongovernmental purchasers that have refineries along BLM's helium pipeline. Proceeds from helium sales are directed to a fund that supports Interior's operation of the helium program.

The 1996 Privatization Act also froze the program's debt as of October 1, 1995, and required helium sales to be priced, at a minimum, to cover operating costs and repay the debt incurred by the Government when it purchased the large inventory of helium in 1960. BLM estimates that this debt, which is approximately \$44 million, will be paid off in 2013. Upon repayment of this debt, the helium fund will terminate. According to BLM, this will have the effect— absent reauthorization of the fund or other appropriations action—of ending the Department's ability to pay for continuing program operations.

With bipartisan support, Congress is now proposing to further amend the Helium Act through the Helium Stewardship Act of 2012 (S.2374). The proposed legislation would reauthorize the program and specifically require the Secretary of the Interior to sell helium intended for nongovernmental use at approximate market value. Under market conditions, BLM's remaining helium inventory may be worth considerably more than its current \$1 billion valuation. Sales of BLM's remaining inventory to nongovernmental purchasers are estimated to continue until sometime between 2018 and 2020.

BLM officials informed us—and industry, research, and newspaper articles confirm—that helium is in seriously short supply. Industry predictions suggest that helium prices will increase when BLM exits the market, as a result of supply and demand. A 2011 international industry³ article reported that nongovernmental helium producers have been increasing the price of helium at rates nearly three times greater than BLM has over the past decade. The article further predicts prices will continue rising at double-digit annual rates over the next several years.

³ "Tight Supply Reins In The Worldwide Helium Market," CryoGas International, October 2011.

Findings

BLM is not obtaining market value for its helium reserve, which has resulted in the missed opportunity to collect millions in additional helium revenue. Nongovernmental sources purchase approximately 90 percent of BLM's helium sales in any given year. Although BLM has recently increased helium prices for these users, the increases cover only BLM's operating costs and do not reflect the market value of the resource. In addition, BLM is managing nongovernmental helium sales without formal procedures to guide program operations.

Obtaining Helium Market Value

BLM has a window of opportunity to collect many millions of dollars in additional helium sales revenue, if it acts quickly. This opportunity is currently being missed because BLM's prices reflect only its costs, not market value. BLM's helium sales are occurring at a time of rapidly increasing worldwide demand, and BLM faces challenges in identifying and obtaining market prices.

In 2010, a National Academy of Sciences study concluded that the 1996 Privatization Act had adversely affected critical users of helium and that selling off the supply, as required, was not in the best interest of U.S. taxpayers or the Nation. The report concluded that enormous BLM sales volumes, which then equaled approximately 50 percent of total U.S. demand, controlled prices worldwide, giving no assurance that BLM's helium price had any relationship to market value. The National Academy of Sciences encouraged Congress to reconsider selling off BLM's helium supply and made ten recommendations, most of which BLM implemented.

In response to the National Academy of Sciences report, BLM raised its nongovernmental sales price for helium from \$64.75 to \$75 per thousand cubic feet (Mcf) in fiscal year 2011. BLM announced it would raise the price further in 2013, to \$84 per Mcf, to reclaim costs not currently being recovered.

BLM's current inventory is valued at approximately \$1 billion. For each percentage point increase in value, BLM would collect an estimated \$10 million in additional helium revenues (see figure 1). A 25 percent increase would generate \$250 million in additional gross revenues. Depending on what market value is established for helium and the future cost of program operations, BLM could collect this amount or more. To capitalize on this opportunity, BLM needs to identify and to charge market value for all helium sales to nongovernmental purchasers.

Additional Potential Gross Revenues	
If valuation were to increase by:	...then additional gross revenues from the sale of helium would be:
1%	\$10 million
5%	\$50 million
10%	\$100 million
25%	\$250 million

Figure 1. Additional potential gross revenues based on increased valuation from a \$1 billion base. Source: OIG

Once BLM repays the program’s current debt of approximately \$44 million, which it estimates will be repaid in 2013, any revenue realized by BLM beyond its operating costs will result in increased revenues to the U.S. Treasury. BLM officials provided several reasons that may prevent them from determining market value:

1. Helium producers have been unwilling to provide sufficient comparative sales data to BLM.
2. The limited number of refiners (four) that purchase the BLM helium inventory prevents BLM from effectively using open competition to obtain market value.
3. BLM’s market dominance sets or influences helium’s market value for other producers, and this distorts the true market value.

The U.S. Department of the Interior’s Office of Minerals Evaluation (OME) is responsible for helping bureaus to identify and obtain market value for all minerals on Federal lands. OME officials told us that they could assist BLM in developing a process to determine helium’s market value. This additional expertise would help BLM in identifying and obtaining market value for its helium.

We issued a Notice of Potential Findings and Recommendations (NPFR) to BLM in July 2012. BLM concurred with our NPFR and agreed to work with OME to identify and obtain the market value of helium.

Recommendations
<ol style="list-style-type: none"> 1. BLM should work with OME to develop a process to identify the fair market value price of helium sold to nongovernmental buyers. 2. To ensure a fair return, BLM should implement the new helium pricing process by the end of 2013.

Managing Helium Sales

BLM has been operating without formal procedures for nongovernmental helium sales since it assumed responsibility for the helium program in 1996. Establishing formal procedures not only provides for consistency in program operations, but also creates a baseline for internal controls. Without proper internal controls in place, the risk of fraud, waste, and mismanagement is increased.

Officials at the Amarillo Field Office told us that, in 2005, they provided draft regulations to the BLM headquarters office for finalization. Headquarters staff replied to the Amarillo Field Office that they did not have time to finalize the draft regulations and, therefore, no action was taken. Although we asked for a copy of the draft regulations sent to the headquarters office, BLM could not locate a copy.

Amarillo Field Office personnel did provide a copy of a framework, signed in April 2012, for internal control procedures related to nongovernmental helium sales. While this is a start, the implementation of more comprehensive procedures is necessary for managing the program and reducing the risk of fraud, waste, and mismanagement.

We discussed the need for comprehensive procedures with BLM's Deputy Assistant Director – Minerals and Realty Management. He agreed that BLM needs to document program procedures. Because sales to nongovernmental organizations likely will be significantly decreased or eliminated as BLM reduces its helium inventory, he suggested that implementing procedures in the BLM manual or handbook might be more appropriate than through the Code of Federal Regulations.

The NPFR we issued in July 2012 noted that BLM did not have formal written procedures for managing nongovernmental sales. BLM concurred with our recommendation to fully develop and document program procedures.

Recommendation

3. BLM should prepare and implement comprehensive procedures for managing its helium sales to nongovernmental buyers.

Conclusion and Recommendations

Conclusion

This report provides highlights of the history of Government helium sales and provides recommendations that, if implemented, may help BLM obtain fair market value from future sales. Legislation passed during the 1990s authorized that the Government's sale of helium stores essentially be concluded by 2015, with the exception of a small reserve of gas maintained for Federal purposes. Due to complications with determining fair market value for these reserves, BLM continues to sell its helium stores at prices set during the 1990s, with adjustments only for inflation and changes in the program's operating costs. There is no assurance that BLM's prices reflect the market value of helium, which has increased dramatically in the private sector as changes in technology have led to ever new and increasing uses for the resource.

We believe that BLM has a short window of opportunity to determine and obtain market value for its helium reserves. In so doing, BLM will help to ensure that the Government receives an appropriate return for the sale of this significant natural resource.

Summary of Recommendations

BLM responded to our draft report by concurring with all of our recommendations and agreeing to "take swift action". In its response, it identified a responsible official and target date for each recommendation (see appendix 3).

1. BLM should work with OME to develop a process to identify the fair market value price of helium sold to nongovernmental buyers.

BLM's Response

BLM and OME are working together on "several options" to "establish an economically defensible price for helium". BLM anticipates initiating related contracting as soon as January 2013.

2. To ensure a fair return, BLM should implement the new helium pricing process by the end of 2013.

BLM's Response

While acknowledging that it might encounter some "difficulty in developing the new methods and procedures," BLM agreed to work toward new pricing for FY 2014.

3. BLM should prepare and implement comprehensive procedures for managing its helium sales to nongovernmental buyers.

BLM's Response

BLM agreed to “develop a comprehensive manual” by December 2013.

OIG Analysis of BLM's Response

We consider all three recommendations to be resolved but not yet implemented (see appendix 4). The recommendations will be referred to the Assistant Secretary for Policy, Management and Budget for tracking of implementation.

Appendix I: Scope and Methodology

Scope

The scope of the review focused on nongovernmental sales conducted by BLM's Amarillo Field Office.

Methodology

We conducted this 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

To accomplish the objective of this audit, we—

- gathered general, administrative, and background information to provide a working knowledge of the helium program;
- identified and reviewed policies and procedures related to the helium program;
- conducted site visits to interview personnel at BLM's headquarters and Amarillo Field Office;
- reviewed current and proposed legislation impacting the helium program; and
- reviewed BLM pricing information for nongovernmental helium sales.

Appendix 2: Prior Audit Coverage

The Office of Inspector General has issued two related reports in the past 5 years addressing the helium program in BLM:

2008: Immediate Action Needed to Stop the Inappropriate Use of Cooperative Agreements in the BLM's Helium Program

In August 2008, we issued an evaluation report, "Immediate Action Needed to Stop the Inappropriate Use of Cooperative Agreements in the BLM's Helium Program (No. WR-IV-BLM-0003-2008/OI-CO-07-0206-I). This evaluation was initiated because of a complaint received about activities occurring between BLM and a contractor representing several helium refiners on the BLM helium pipeline. These activities portrayed a less-than-arms length relationship between BLM and the contractor that allowed the circumvention of procurement regulations. At the time of our evaluation, we realized that BLM was contemplating the renewal of two, 15-year cooperative agreements that should have been procurement contracts. We also identified several weaknesses that leave the Government vulnerable to fraud, mismanagement, and potentially large monetary losses. In addition, we found overcharging, possible double-billing, costly short-term financing, and unjustified allocation of equipment costs. The Department has indicated that the recommendations have been implemented; we have not verified.

2010: Follow-Up to Office of Policy Analysis Report, "Review of Selective Aspects of the Federal Helium Program"

In response to our 2008 report, BLM asked the Department's Office of Policy Analysis (PPA) to conduct an independent review of the helium program with a primary focus on our recommendations. PPA issued its report in June 2010. We reviewed the PPA report and BLM's planned actions, and issued an inspection report, "Follow-Up to Office of Policy Analysis Report, 'Review of Selective Aspects of the Federal Helium Program'" (WR-IN-BLM-0003-2010). In this report, we urged BLM to make necessary changes to improve the transparency and accountability of the helium program. The Department has indicated that most of the recommendations have been implemented; we have not verified.

Appendix 3: BLM's Response

The bureau's response to the draft report follows on page 12.



United States Department of the Interior

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NOV - 6 2012

In Reply Refer To:
1245(WO-830)

Memorandum

To: Mary L. Kendall
Deputy Inspector General

Through: Marcilynn A. Burke *Marcilynn A. Burke*
Acting Assistant Secretary - Land and Minerals Management

From: Mike Pool *Mike Pool*
Acting Director

Subject: Response to the Office of the Inspector General's Draft Audit Report, titled, "Bureau of Land Management's Helium Program" (Report No. C-IN-MOA-0010-2011)

On October 25, 2012, the Office of the Inspector General (OIG) issued its draft report, titled, "Bureau of Land Management's Helium Program" (Report No. C-IN-MOA-0010-2011). The report contained the following three recommendations:

1. BLM should work with the Office of Minerals Evaluation (OME) to develop a process to identify the fair market value price of helium sold to nongovernmental buyers.
2. To ensure a fair return, the Bureau of Land Management (BLM) should implement the new helium pricing process by the end of 2013.
3. BLM should prepare and implement comprehensive procedures for managing its helium sales to nongovernmental buyers.

The BLM agrees to take swift action on implementing the recommendations of the OIG. If you have any questions, please contact Danita Burns, Acting Field Manager, Amarillo Field Office, at 806-356-1002, or BLM's Audit Liaison Officer, LaVanna Stevenson, at 202-912-7077.

Attachment

**Response to the Office of the Inspector General's Final Report
"Bureau of Land Management's Helium Program" (Report No. C-IN-MOA-0010-2011)**

Recommendation 1: BLM should work with OME to develop a process to identify the fair market value price of helium sold to nongovernmental buyers.

Response: The BLM concurs with recommendation 1 and is actively engaging the Office of Minerals Evaluation (OME) in determining the crude helium open market value and procedures to manage the helium sales to nongovernmental buyers. The BLM's Amarillo Field Office and the Department of Interior's OME have developed several options for determining a new and fair pricing of sales to nongovernmental buyers, including retention of a third-party to collect and analyze market data. In order to establish an economically defensible price for helium, the BLM must first determine an equilibrium market price that reflects two considerations—the cost to refine helium and the supply/demand for helium.

Target Date: The BLM is targeting December 2012 to complete the statement of work and initiate contracts by January 2013.

Responsible Officials: Jesse Juen, BLM New Mexico State Director.

Recommendation 2: To ensure a fair return, BLM should implement the new helium pricing process by the end of 2013.

Response: The BLM concurs with recommendation 2. Historically, the BLM has determined any adjustments to the helium price by the end of March; the prices changes then become effective on October 1. The time required to determine these procedures and the proposed timeline to complete and implement the new pricing process by October 1, 2013, may require a later time in posting the new price than the BLM has strived for in the past. Although the BLM may have difficulty in developing the new methods and procedures and setting a new price in accordance with those methods and procedures by March 2013, the BLM plans to implement them as soon as practicable.

Target Date: The BLM will work with OME contractor to implement the new methods and procedures as quickly as possible in time for FY 2014.

Responsible Officials: Jesse Juen, BLM New Mexico State Director.

Recommendation 3: BLM should prepare and implement comprehensive procedures for managing its helium sales to nongovernmental buyers.

Response: The BLM concurs with recommendation 3. The BLM will develop a comprehensive manual, documenting the procedures for managing its helium sales to nongovernmental buyers. The BLM's Amarillo Field Office and OME have developed and are currently evaluating several options for determining a new and fair pricing process for helium sales to nongovernmental

buyers. The BLM will include the process it ultimately selects in its comprehensive procedures manual.

Target Date: The BLM will complete the process manual by December 2013.

Responsible Officials: Jesse Juen, BLM New Mexico State Director.

Appendix 4: Status of Recommendations

In response to our draft report, BLM concurred with all three of our recommendations and agreed to implement them. The response included target dates and an action official for each recommendation (see appendix 3). We consider all three recommendations resolved and not implemented.

Recommendations	Status	Action Required
1, 2, and 3	Resolved, not implemented	The recommendations will be referred to the Assistant Secretary for Policy, Management and Budget for tracking of implementation.

Report Fraud, Waste, and Mismanagement



Fraud, waste, and mismanagement in government concern everyone: Office of Inspector General staff, Departmental employees, and the general public. We actively solicit allegations of any inefficient and wasteful practices, fraud, and mismanagement related to Departmental or Insular Area programs and operations. You can report allegations to us in several ways.



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