FEDERAL HELIUM PROGRAM

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON
ENERGY AND MINERAL RESOURCES

OF THE

COMMITTEE ON
NATURAL RESOURCES
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

FIRST SESSION

ON

THE ADMINISTRATION OF THE FEDERAL HELIUM PROGRAM

HEARING HELD IN WASHINGTON, DC
MAY 20, 1993

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CONTENTS

	Page
Hearing held: May 20, 1993	1
Member statements:	
Hon. Richard H. Lehman	1
Witness statements:	
Hon. Bill Sarpalius, a Representative in Congress from the State of Texas	2
Panel consisting of:	
James Duffus III, Director, Natural Resources Management Issues, Resources, Community, and Economic Development Division, General Accounting Office, accompanied by Charles S. Cotton, Assistant Director in Charge for Natural Resources Management Issues, and Leonard W. Ellis, Assignment Manager	5
Joyce N. Fleischman, Acting Inspector General, Department of the Interior	15
Dr. Hermann Enzer, Acting Director, U.S. Bureau of Mines, Department of the Interior, accompanied by Armond Sonnek, Assistant Director for Helium Operations, and Dale Bippus, General Manager, Helium Field Operations	17
Hon. Christopher Cox, a Representative in Congress from the State of California	46
Carl Johnson, chairman, Helium Advisory Council, and president of Compressed Gas Association, accompanied by Art Francis and Gary Caesar of Prax Air; Dennis Fagerstone of Mesa, Inc.; Phil Kornbluth of Airco Gases; and Ben Reinoelh of Air Products & Chemicals, Inc	56

THE ADMINISTRATION OF THE FEDERAL HELIUM PROGRAM

THURSDAY, MAY 20, 1993

HOUSE OF REPRESENTATIVES,
COMMITTEE ON NATURAL RESOURCES,
SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES,
Washington, DC.

The Subcommittee met at 10:00 a.m. in Room 1324 of the Longworth House Office Building, the Hon. Richard H. Lehman, Chairman of the Subcommittee, presiding.

STATEMENT OF HON. RICHARD H. LEHMAN

Chairman LEHMAN. The Subcommittee will come to order. The Subcommittee is meeting today to conduct an oversight hearing on the Federal Helium Program administered by the Bureau of Mines in the Department of Interior.

While most people may associate helium with balloons and blimps, it is also used in the space shuttle program, in Starwars research, for cryogenics and magnetic resonance imaging. The federal government got involved in producing helium during World War I when the Army and Navy became interested in using it for dirigibles, more commonly known as blimps.

Congress then passed the Helium Act of 1925, which created the Federal Helium Program. Later, concerns that helium supplies were tapering off prompted Congress to replace the 1925 Act with the Helium Act amendments of 1960, which set out the program we are considering today.

The 1960 Act was intended to conserve helium and to supply the current and foreseeable future needs of the federal government. The law authorizes the Secretary of the Interior to buy helium from private supplies and store it for use by the federal government in federally owned plants and related storage facilities.

The Act also encouraged private industry to participate in helium recovery, as previously the federal government had been the only domestic helium producer.

During the 1960s, the Bureau of Mines contracted with private companies to supply helium to the federal government. To finance purchases, the Bureau of Mines borrowed $252 million from the Treasury, intending that future sales would recover the loan.

Due to several factors, including the emergence of the private helium industry, which was able to sell helium at lower prices than the federal government, this debt and the attendant interests have never been repaid.

Currently, 32 billion cubic feet of helium is stockpiled in an underground dome northwest of Amarillo, Texas. Meanwhile, the helium debt has risen to $1.4 billion, most of which is interest.

Although required to refund this debt by 1995, there is no prospect of repayment. According to a 1992 report by the GAO, many of the conditions which prompted Congress to act in 1960 have changed.

For example, a strong private helium industry has emerged that could meet federal need in the absence of the federal program. Both the GAO and the Inspector General of the Department of the Interior have supported reform of the Helium Program.

In light of such recommendations, and in consideration of several bills pending before this Subcommittee which would modify or eliminate the program, not to mention calls from public interest groups such as the Taxpayers Union to sell off the program, it is appropriate that the Subcommittee take a good, hard look at the Federal Helium Program to determine whether it remains a viable, necessary function for the federal establishment.

Today, we will hear testimony from the GAO, the Acting Inspector General of the Department of the Interior, the Bureau of Mines and representatives of the Helium Advisory Council who will present the industry perspective.

It is my intention that in the coming months the Subcommittee will sort through the information and misinformation surrounding the program and come up with a solution that addresses the federal government's need for helium, the program's debt and the interrelationship of the program with the United States economy.

I look forward to a very lively and spirited discussion this morning. We have a number of witnesses and we have three members who also asked to testify.

Is Mr. Inglis here? He's not here. Mr. Cox wants to testify a little later.

At this time, then, I will call on Bill Sarpalius from Texas, who is directly impacted by this, having a facility in his district. And, I've given him permission to sit with the Committee this morning.

The gentleman from Texas is recognized.

STATEMENT OF HON. BILL SARPALIUS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. SARPALIUS. Thank you, Mr. Chairman.

Mr. Chairman, I appreciate you and the members of this Committee taking the time to listen to the testimony and consider the different proposals that are before you.

I am submitting written testimony and would request that it be entered into the record.

Chairman LEHMAN. Without objection.

Mr. SARPALIUS. Much attention has been focused on the Helium Program with claims that it is no longer needed and that it is a growing burden on the taxpayers. Neither of these charges is valid.

Bureau of Mines' testimony shows that the federal helium program has assured a constant supply of helium to agencies with helium needs. Space shuttle support and uses of helium by government laboratories establish a long-term need for helium.

Private helium producers store their product at the government facility at Cliffside. I have with me a GAO study which recommended in October of 1992 that the debt be cancelled and stated that cancellation of the debt would not adversely affect the federal budget since the interest is a paper transaction.

Mr. Chairman, back in 1960 the federal government invested $252 million to purchase helium. Today, that helium is worth—it's guesstimated approximately close to a billion dollars. It has been a good investment.

But, over that period of time, as interest has gone up and down for the past 30 years, 33 years, we have found ourselves with a $1.3 billion interest note. Under GAO's recommendations, there is no possible way that we can ever pay that note off.

We filed legislation yesterday that asks for the federal government to forgive the $1.3 billion interest that we have on that. And, as I stated earlier, the GAO report has indicated that it would have no effect at all as far as how it affects the budget of this country.

I look forward to hearing some of the testimony from some of the other members that have legislation, as well as from the Bureau of Mines and the other people that are here to testify. But, I would hope that you would look at our legislation very strongly. It does follow the recommendations of the General Accounting Office.

Thank you.

[Prepared statement of Mr. Sarpalius follows.]

Testimony of Rep. Bill Sarpalius
before the
Subcommittee on Energy and Mineral Resources
May 20, 1993

Chairman Lehman, I would like to thank you and all the Members of the Subcommittee on Energy and Mineral Resources for the opportunity to express my strong support for the United States Bureau of Mines Federal Helium Operations.

In a fervent search for fiscal savings, some of my colleagues have sought to terminate the Federal helium program with claims that it is no longer relevant and that it constitutes a growing fiscal burden on the taxpayer because of the $1.3 billion debt owed to the Treasury. Neither of these claims is valid.

As testimony submitted by the Bureau of Mines shows, the Federal helium program has assured a constant supply of helium to Federal agencies with helium needs. Space shuttle support and cryogenic uses of helium by government laboratories establish the fundamental and enduring relevance of the government program.

In addition, the Federal helium program has fostered private helium production by allowing private companies to store their excess crude helium in the Bureau's storage facility at Cliffside. Private sector helium recovery is dependent upon seasonal swings in natural gas production, so in order to assure a steady supply for the market, excess crude helium is stored for a fee at Cliffside. Last year, one-third of the world's supply of helium was redelivered from the government operated storage field.

Regarding the debt, the General Accounting Office (GAO) in October 1992 recommended that the debt be cancelled and stated "...cancellation of the helium program's debt would not adversely affect the federal budget because the debt consists of outlays that have already been appropriated and interest that is a paper transaction, not an outlay."

I believe some reform in the helium program is warranted. Certainly, GAO findings identify the true character of the $1.3 billion debt. Since the program began with a commitment to repay funds borrowed to purchase helium, I believe that commitment should be honored. Accordingly, I have introduced legislation to forgive the interest accrued on the debt to date and to require the helium program to repay the $252 million principal to the Federal Treasury with revenues from helium sales. The legislation also prohibits further interest from being charged. The program receives no appropriation and returns from $7 to $10 million per year to the Treasury. Debt retirement can be attained if compound interest which has accrued to more than $1 billion is forgiven.

Again, Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to show an example of a government program that meets the demands of government agencies and returns money to the Treasury each year. I am proud to show my support for the Federal Helium Program.

Chairman LEHMAN. Thank you very much. And, I certainly look forward to working with you on this issue as we go forward here.

PANEL CONSISTING OF JAMES DUFFUS III, DIRECTOR, NATURAL RESOURCES MANAGEMENT ISSUES, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY CHARLES S. COTTON, ASSISTANT DIRECTOR IN CHARGE FOR NATURAL RESOURCES MANAGEMENT ISSUES, AND LEONARD W. ELLIS, ASSIGNMENT MANAGER; JOYCE N. FLEISCHMAN, ACTING INSPECTOR GENERAL, DEPARTMENT OF THE INTERIOR; AND DR. HERMANN ENZER, ACTING DIRECTOR, U.S. BUREAU OF MINES, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY ARMOND SONNEK, ASSISTANT DIRECTOR FOR HELIUM OPERATIONS, AND DALE BIPPUS, GENERAL MANAGER, HELIUM FIELD OPERATIONS

Chairman LEHMAN. At this time, there being no other members here right now, we will call the panel up. And, what I would like to do, with Mr. Enzer's permission, is to invite him up with the first panel, if we can, if we have enough seats, and we will take everyone together here, Panels I and II.

That will be Mr. James Duffus, III, Ms. Joyce Fleischman and then Dr. Hermann Enzer. Okay.

We will put each of your complete statements and any attendant material you have to that in the record, without objection. And, I will ask you to summarize your statements.

STATEMENT OF JAMES DUFFUS III

We will proceed, starting with Mr. Duffus.

Mr. DUFFUS. Thank you, Mr. Chairman. I will summarize my statement and submit the complete statement for the record.

We are pleased to be here today for the Subcommittee's oversight hearing on the Helium Act of 1960. My remarks will be based on our October 30, 1992, report on meeting federal needs for helium.

In summary, Mr. Chairman, our work has shown three things. First, the Department of the Interior's Bureau of Mines has acted to meet the Act's objectives. Second, the Helium Program debt, which overshadows meaningful debate on the merits of the program, could be cancelled without adversely affecting the federal budget. And, third, a reassessment of the objectives of the Helium Act is needed.

With respect to the Helium Program debt, there have been suggestions that the Helium Program should be abolished, because it has incurred a $1.3 billion debt that is costly to the taxpayers. However, this is not the case, because the Helium Program debt has no adverse effect on the federal budget.

The 1960 Act required that the program's net capital and retained earnings, valued at about $40 million plus subsequent program borrowing from the U.S. Treasury, which totaled about $252 million, be established as debt in the Helium Fund. This fund is used to account for the program's revenues and expenses.

The Act required that this debt, plus interest, be repaid to the Treasury by 1995 from helium sales revenues. Since 1960, the debt in the Helium Fund has grown to about $1.3 billion of which more

than $1 billion is interest which is accruing at a rate of over $100 million a year since fiscal year 1991.

However, none of this debt represents current outlays by the federal government. The $40 million for net capital and retained earnings was a valuation of the program's assets in 1960. It represents the value of the appropriations that were recorded in the federal budget since 1925 to meet federal needs for helium at a time when there was no private helium industry.

The $252 million was used in the 1960s and 1970s to purchase and store helium to achieve the Act's conservation objective. These appropriations were also recorded in the federal budget as outlays in the years in which the funds were expended.

Finally, the $1 billion in interest is not, nor has it ever been, an outlay by the federal government. Rather, it is merely a paper transaction that has no effect on the federal budget or on taxpayers.

Purchasing such a large inventory of raw material and covering that cost, plus interest, with revenues from routine opeations is not normal business practice. However, the Bureau could have, and still can, cover these costs and repay the program debt by 1995 by charging federal agencies with major requirements for helium a high enough price.

These agencies, by law, would have no choice but to pay the higher price if they continue to purchase helium. This would not adversely affect the overall federal budget because increased agency appropriations would offset increased Bureau revenues, making it a "wash transaction."

A simpler alternative, in our view, for eliminating the Helium Program's debt, which we recommended in our 1992 report, would be to cancel it. Eliminating the debt would allow the Bureau's program to be evaluated in terms of meeting its actual operating expenses.

However, continuation of the program with its debt cancelled could undercut private refined helium prices and adversely affect the private helium refining industry unless further actions are taken. One alternative would be to eliminate competition between the Bureau and the private helium refining industry by requiring that the Bureau meet all federal needs but be prohibited from selling to non-federal customers.

Finally, Mr. Chairman, a reassessment of the objectives of the Helium Act is needed. In addition to deciding what to do about the Helium Program debt, we believe that the Congress needs to assess the Act's objectives in light of changes that have occurred since the Act was passed in 1960.

Any revisions to the Act, however, should be carefully evaluated because the Act's objectives are interrelated. A change to one could affect another, and any changes may affect the federal budget and the total cost of supplying helium to the U.S. economy.

In 1960, the Bureau was the sole producer of refined helium, but now the private helium industry supplies almost 90 percent of refined U.S. helium and could meet federal needs for helium if there were no Bureau program. Also, there was concern in 1960 that helium conservation was necessary to ensure federal needs could be

met. But now the Bureau has enough helium in storage to meet federal needs until at least the year 2070.

Before changing the Act to address changes that have occurred, consideration must be given to the interrelationship of the Act's objectives. For example, a decision about increasing, holding, using or selling the federal helium inventory will affect the federal budget and the private helium industry differently.

A decision to sell the federal helium inventory would generate revenues for the federal government, but the sale would probably drive the private crude helium industry out of business. On the other hand, holding the federally owned inventory incurs an opportunity cost of foregoing revenues to the federal government.

If holding the inventory occurs at the same time that federal purchases of helium are shifted from the Bureau to private industry, the total cost of supplying helium to the U.S. economy increases because of the need for new private investment in helium production capacity.

In summary, how to meet federal needs for helium is a public policy decision that should consider many issues. We believe that the Congress should reassess the objectives of the Helium Act of 1960 in order to decide how best to meet federal needs for helium.

Such a decision should not only consider the effects of changes that have occurred since the Act was passed but also the interrelationship of the Act's objectives and the effect on the federal budget and the total cost of supplying helium to the U.S. economy. However, we believe that the debate should not focus on the debt associated with the Helium Program because it does not adversely affect the federal budget and should be cancelled.

Thank you, Mr. Chairman.

[Prepared statement of Mr. Duffus follows.]

United States General Accounting Office

GAO

Testimony

Before the Subcommittee on Energy and
Mineral Resources,
Committee on Natural Resources,
House of Representatives

For Release on Delivery
Expected at
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MINERAL RESOURCES

Meeting Federal Needs for Helium

James Duffus III, Director,
Natural Resources Management Issues
Resources, Community, and Economic
Development Division

GAO/T-RCED-93-44

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today for the Subcommittee's oversight hearing on the Helium Act of 1960. My remarks will be based on our October 30, 1992, report on meeting federal needs for helium.[1]

In summary, Mr. Chairman, our work has shown three things. First, the Department of the Interior's Bureau of Mines has acted to meet the act's objectives. Second, the helium program debt, which overshadows meaningful debate on the merits of the program, could be canceled without adversely affecting the federal budget. And third, a reassessment of the objectives of the helium act is needed. Before discussing the results of our work in more detail, I would like to provide some background on the helium program.

BACKGROUND

Helium is an element that occurs naturally in gaseous form. It is recovered from certain natural gas fields, and in the United States most of those fields are located in Kansas, Oklahoma, Texas, and Wyoming. Helium is separated from natural gas and stored in a concentrated form--referred to as crude helium--until it goes through the final refining process. The federal government uses helium, in among other things, the space program, weapons systems, and superconductivity research. For example, helium is used to purge the fuel tanks and lines of the space shuttle.

The Helium Act of 1960 was passed in response to growing federal needs for helium, especially for the space program, and concern that the nation's helium reserves were being rapidly depleted as helium was vented into the atmosphere by natural gas producers. The 1960 act authorizes Interior to conserve, buy,

[1]Mineral Resources: Meeting Federal Needs for Helium (GAO/RCED-93-1, Oct. 30, 1992).

store, produce, and sell helium to meet federal and other needs. In addition, the act requires that federal agencies purchase their major requirements for helium from the Bureau of Mines. The objectives of the act are to (1) conserve helium for future use, (2) provide a sustained supply of helium sufficient for essential government activities, and (3) foster and encourage individual enterprise in the development and distribution of helium.

In 1991, U.S. refined helium production was about 3.1 billion cubic feet, of which the Bureau supplied about 350 million cubic feet (about 11 percent). The Bureau's helium production and storage facilities are located near Amarillo, Texas. The remaining 89 percent of refined helium was produced by the private helium industry that has developed since 1960.

BUREAU OF MINES HAS ACTED TO MEET THE ACT'S OBJECTIVES

The Bureau has acted to meet the objectives of the 1960 act. First, to conserve helium, the Bureau purchased, produced, and stored helium that would otherwise have been vented into the atmosphere during natural gas production. When the Bureau ceased helium purchases in 1973, the Secretary of the Interior determined that the federal helium inventory would meet federal needs for at least 30 years. As of September 30, 1992, the Bureau estimated that, at the current rate of use, the 32.3 billion cubic feet of helium remaining in storage would last until at least 2070. Second, to provide helium for essential government activities, the Bureau has satisfied federal needs for helium. Finally, to foster and encourage individual enterprise in helium, the Bureau's helium purchases and other actions encouraged crude helium production and the development of a private helium-refining industry.

FEDERAL BUDGET NOT ADVERSELY
AFFECTED BY BUREAU HELIUM PROGRAM DEBT

Now I would like to discuss the helium program debt, which we believe overshadows meaningful debate on how to meet federal needs for helium. There have been suggestions that the helium program should be abolished because it has incurred a $1.3 billion debt that is costly to the taxpayers. However, this is not the case because the helium program debt has no adverse effect on the federal budget.

The 1960 act required that the program's net capital and retained earnings, valued at about $40 million, plus subsequent program borrowing from the U.S. Treasury, which totaled about $252 million, be established as debt in the Helium Fund. This fund is used to account for the program's revenues and expenses. The act required that this debt, plus interest, be repaid to the U.S. Treasury by 1995 from helium sales revenues. Since 1960, the debt in the Helium Fund has grown to about $1.3 billion, of which more than $1 billion is interest that had been accruing at a rate of over $100 million a year as of fiscal year 1991.

However, none of this debt represents current outlays by the federal government. The $40 million for net capital and retained earnings was a valuation of the program's assets in 1960. It represents the value of appropriations that were recorded in the federal budget since 1925 to meet federal needs for helium at a time when there was no private helium industry. The $252 million was used in the 1960s and 1970s to purchase and store helium to achieve the act's conservation objective. These appropriations were also recorded in the federal budget as outlays in the years in which the funds were expended. Finally, the $1 billion in interest is not, nor has it ever been, an outlay by the federal government. Rather, it is merely a paper transaction that has no effect on the federal budget or on taxpayers.

Purchasing such a large inventory of raw material and covering that cost, plus interest, with revenues from routine operations is not normal business practice. However, the Bureau could have, and still can, cover these costs and repay the program debt by 1995 by charging federal agencies with major requirements for helium a high enough price. Those agencies, by law, would have no choice but to pay the higher price if they continue to purchase helium. This would not adversely affect the overall federal budget because increased agency appropriations would offset increased Bureau revenues, making it a "wash transaction."

We believe that a simpler alternative for eliminating the helium program's debt, which we recommended in our 1992 report, would be to cancel it. Eliminating the debt would allow the Bureau's helium program to be evaluated in terms of meeting its actual operating expenses. However, continuation of the program with its debt cancelled could undercut private refined helium prices and adversely affect the private helium-refining industry unless further actions are taken. One alternative would be to eliminate competition between the Bureau and the private helium-refining industry by requiring that the Bureau meet all federal needs but be prohibited from selling to nonfederal customers.

A REASSESSMENT OF THE OBJECTIVES OF THE HELIUM ACT IS NEEDED

We believe that in addition to deciding what to do about the helium program debt, the Congress should reassess the act's objectives in light of changes that have occurred since the act was passed in 1960. However, any revisions to the act should be carefully evaluated because the act's objectives are interrelated. A change to one objective could affect another, and any changes may affect the federal budget and the total cost of supplying helium to the U.S. economy.

In 1960, the Bureau was the sole producer of refined helium, but now a private helium industry supplies almost 90 percent of refined U.S. helium and could meet federal needs for helium if there were no Bureau program. Also, in 1960 there was concern that helium conservation was necessary to ensure that federal needs could be met, but now the Bureau has enough helium in storage to meet federal needs until at least 2070.

However, before changing the act to address changes that have occurred, consideration must be given to the interrelationship of the act's objectives. For example, a decision about increasing, holding, using, or selling the federal helium inventory will affect the federal budget and the private helium industry differently. A decision to sell the federal helium inventory would generate revenues for the federal government, but the sale would probably drive the private crude helium industry out of business. On the other hand, holding the federally owned helium inventory incurs an opportunity cost of foregoing revenues to the federal government. If holding the inventory occurs at the same time that federal purchases of helium are shifted from the Bureau to private industry, the total cost of supplying helium to the U.S. economy increases because of the need for new private investment in helium production capacity.

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In summary, Mr. Chairman, how to meet federal needs for helium is a public policy decision that should consider many issues. We believe that the Congress should reassess the objectives of the Helium Act of 1960 in order to decide how to meet federal needs for helium. Such a decision should consider not only the effects of changes that have occurred since the act was passed in 1960 but also the interrelationship of the act's objectives and the effect on the federal budget and the total cost of supplying helium to the U.S. economy. We believe, however, that the debate should not

72-662 - 93 - 2

focus on the debt associated with the helium program because it does not adversely affect the federal budget and should be canceled.

Mr. Chairman, this concludes my statement. We will be happy to answer any questions that you or other Members of the Subcommittee may have.

(140284)

Chairman LEHMAN. Thank you very much.
Ms. Fleischman.

STATEMENT OF JOYCE N. FLEISCHMAN

Ms. FLEISCHMAN. Good morning, Mr. Chairman and members of the Subcommittee. I am pleased to appear before you today to discuss the Bureau of Mines Helium Program.

The Office of Inspector General has performed only two recent audits specifically addressing the Bureau's helium operations. In our 1991 audit, we reported that private companies that distribute Bureau helium to non-federal users were not complying with all applicable rules governing helium distribution, because the Bureau of Mines had not adequately monitored and controlled the helium distribution program.

Although required to pay the government a $5 per thousand cubic foot fee on their non-federal helium sales, distributors had never paid this fee. As a result, in 1989 and 1990, the Bureau did not collect helium fees of approximately $293 thousand and $473 thousand, respectively.

We made four recommendations to improve procedures for collecting and assessing the fees and to strengthen the controls for monitoring the sale of helium. The Bureau responded to us by eliminating the requirement for payment of the $5 per thousand cubic foot fee.

In our earlier audit in 1984, we reported that the primary objectives of the Helium Act of 1960 had been met. But, the probability that the Bureau of Mines could repay the Treasury for funds borrowed to finance the Helium Program was remote at best.

Accordingly, at that time, we recommended that the Bureau submit legislation to write off the Treasury debt. The Bureau responded that it would submit recommendations, which would include options for resolving the Treasury debt, to the House Committee on Appropriations.

Neither audit report addressed the issue of whether the Bureau should continue the Helium Program as it was currently constituted. However, our recently completed evaluation of the Bureau's financial statements and accompanying performance report and our analysis of the GAO's review and the Bureau's own 1988 contracted study of the program have led us to conclude that it is not necessary for the Bureau of Mines to continue its present role in the Helium Program.

Before discussing our views on this matter, I would like to provide the Committee with a brief overview of the history of the program, which should help clarify the reasons for its current financial condition.

The Helium Act of 1960 required the Bureau of Mines to acquire and conserve helium for future years to ensure a sufficient supply to meet federal needs. To accomplish that objective and provide start up funds for the program, Congress authorized the Bureau to borrow funds from the U.S. Treasury which were to be repaid by 1995 through revenues from helium sales.

From 1967 through 1973, the Bureau borrowed $37 million to acquire helium facilities and an additional $252 million to acquire helium reserves for storage at the Cliffside facility in Texas. However,

the Helium Program has obviously not generated sufficient revenues to repay this debt primarily because of the emergence of a viable helium industry outside the U.S. Government that was able to sell helium at a lower price than Bureau sales.

Although the program has generated annual net revenues of approximately $8 million, these revenues have covered only a portion of the annual interest costs and none of the principal. For example, debt repayments from the Helium Program were $9.4 million in 1992, while interest costs for that year were $66.5 million. As a result, the Bureau's debt to the Treasury has grown each year and is now approximately $1.3 billion.

One option for reducing the Bureau's debt to the Treasury would be to require the Bureau's primary customers, which are federal agencies such as NASA, the Air Force and others, to pay correspondingly higher costs. This would result in no net effect to the Treasury, as the GAO has pointed out.

Another option, of course, would be to cancel the debt which is based on the original loans made to the Bureau plus interest on the loans. While this appears to be a viable solution, cancelling the debt could precipitate a change in the Bureau's pricing structure for helium.

Theoretically, the Bureau could reduce its price, which would have a significant adverse impact on the helium industry. The question thus remains as to what degree, if any, should the federal government continue to be in the helium business.

The Act was intended to conserve helium to ensure that there would be an adequate supply for future government use. However, helium is now much more plentiful than was anticipated in 1960 and more easily extracted than when the Congress established the Federal Helium Program.

The Bureau, as GAO stated, now has approximately 32 billion cubic feet of helium reserves at the Cliffside facility. That represents approximately a 50 year supply for federal needs.

Furthermore, in 1988, the Bureau studied the situation and estimated that the total known helium reserves in the United States were approximately 268 billion cubic feet or reserves sufficient to meet the next 176 years of United States demand at 1986 levels.

The Act was also intended to foster and encourage private enterprise in the development and distribution of helium. They have accomplished that goal.

Finally, the Act was to provide a sustained supply of helium necessary for essential government activities. The Bureau has met federal needs for helium since 1960.

And, according to the Bureau's 1988 study, the private helium sector has developed its own highly efficient helium production and distribution operations and can now also meet the government's helium needs.

Since the objectives of the 1960 Act have been met and private industry has developed the capability to satisfy helium requirements, the question arises as to whether there is still an overriding need for the federal government to operate the Helium Program as it currently does. We believe that it is time for this policy question to be addressed.

And, although we have not performed specific audit work to allow us to recommend a particular course of action, there are several alternatives to continued federal operation of the Helium Program. These alternatives have been studied by the Bureau.

All of these indicate long-term financial benefit to the Treasury. For example, elimination of the Helium Program by the Bureau of Mines would reduce federal employment, resulting in a savings of approximately $10 million annually.

According to the Bureau's 1988 study, elimination of the program would also produce revenues resulting from the disposal of the federal processing and distribution facilities. However, as the GAO has pointed out, that option has some impact potentially on the industry.

They also estimated that if they were sold, the assets would be sold primarily for their salvage value, bringing in approximately $11 million.

We agree with the GAO. All of the alternatives available present disturbing questions with issues that need to be addressed because of the potential impact on the private sector.

That concludes my prepared statement. I would be happy to answer any questions.

Chairman LEHMAN. Thank you very much. Dr. Enzer.

STATEMENT OF DR. HERMANN ENZER

Mr. ENZER. Mr. Chairman, members of the Subcommittee, I will, as you requested, briefly describe the testimony that we are submitting for the record.

Chairman LEHMAN. That's appreciated. And, without objection, we will put your complete testimony in the record.

Mr. ENZER. I have with me, Mr. Chairman, Mr. Armond Sonnek, who is our Assistant Director for Helium Operations. And, we also asked our General Manager, Dale Bippus, who is back there, the General Manager of our Helium Field Operations, to be here so that we can answer any questions that you may have.

Mr. Chairman, the Department of the Interior appreciates the opportunity to use this oversight hearing to report on the Federal Helium Program and to describe to the Subcommittee the program's relevance, administration and financing. The current statutory authority for the program resides in the Helium Act Amendments of 1960, which assigns to the Secretary of the Interior responsibilities to conserve helium, to produce helium primarily for essential government activities and to promote the development of a private helium industry.

Since 1925, the Federal Helium Program has been the responsibility of the Bureau of Mines. We have worked in this area for a long time, Mr. Chairman.

Primarily to meet the needs of federal agencies, the Bureau operates crude helium storage and refinery facilities and a 425 mile pipeline. We brought along a few boards for you to look at.

The first board shows the pipeline and the facilities that are attached to the pipeline. All of these are private facilities except the Bureau of Mines' facility at the Exell location in Texas.

And, the second board, Mr. Chairman, shows you the Exell facility. I don't know what you see there except for a lot of buildings, but that's what it looks like.

Because of changes in the helium market subsequent to the 1960 Act, several issues relating to the future of the Helium Program and the accumulated debt need to be resolved. I am merely reemphasizing what has already been said by Mr. Duffus and Ms. Fleischman.

The 1960 Act directed the Secretary to purchase and store helium for future government use. Under the Act, the federal agencies are required to purchase all major helium requirements from the Bureau's helium stocks.

We have an assured supply of helium for the foreseeable future, as you just heard. That supply can last, depending on the rate of consumption, between 50 and 80 years.

There are 32 billion cubic feet of helium stored in the ground in a reservoir. This is a picture of a reservoir. It shows three wells.

And, I should point out, Mr. Chairman, that this is a rather unique reservoir. It has excellent properties of porosity, permeability. It is sealed at the right places.

But, again it is a reservoir. And, if it were not maintained properly, the gas over time would just migrate elsewhere.

Here is the areal extent of the reservoir. And, we have the storage rights in the beige shaded area. And, this is where the Cliffside field is located.

To finance the crude helium purchase program, the Bureau was given authority in the 1960 Act to borrow from the Treasury Department instead of receiving direct appropriations. The Act further provided that the Bureau should repay any debt over a period of 25 years. And, there is an extension provision in the Act of 10 years.

The Act envisioned that the Bureau's Helium Program should be self-supporting by establishing a selling price that would cover all costs, including the costs of long-term storage and debt amortization. Debt service was to be calculated at compound interest rates.

Prior to the Act, the Bureau was the only source of helium for federal and private helium customers. And, it sold helium for $15.50 per thousand cubic feet.

We have here a sketch of the historic price developed by the Bureau of Mines. As you can see, our price was flat for a long period of time. We kept it at $35 for a long period of time. We have had—we increased the price recently, and I will mention that a little later on.

The green line describes the price charged by industry, Mr. Chairman.

The price increase of $35 stimulated the development of a private industry. In fact, we have been very successful in accomplishing this objective of the Act, Mr. Chairman.

The private industry, at that time, very quickly captured most of the sales that the Bureau had to private customers. And, we today supply primarily our federal customers and some private customers, but relatively little of that.

In view of this substantial erosion in the Bureau's customer base, Bureau sales and revenues fell far short of expectations. Moreover,

the cost of the debt service began to increase rapidly as interest rates rose well above the three and three-quarters percent rate projected earlier.

As a result, a total debt of about $1.3 billion has accumulated based on the principal of about $300 million and a debt portion of about $1 billion.

The Act had, as I just mentioned, as one of its objectives the promotion of private industry. And, this private industry today supplies 90 percent of the total demand in the helium market.

We, the Bureau of Mines, Mr. Chairman, are at the bottom. We are these red segments.

The domestic demand is represented by the blue bars. And, exports, which have grown rapidly, are represented by the green portions of these bars.

So, as you can see, the demand in the market has grown relatively rapidly. The demand in the private market has grown at around seven percent or so.

Bureau demand has been relatively constant. It has grown at two to three percent annually.

I was going to discuss the debt situation, but you have mentioned it, Mr. Chairman. Mr. Sarpalius has addressed it. And, Mr. Duffus has summarized it very well. I don't think I need to go over this again.

And, I also was going to mention or refer to the report by the General Accounting Office. And, once again, Mr. Duffus has summarized that far better than I can do. And, I don't have to spend our time on that one.

Let me just mention the pricing that I referred to earlier, namely that we increased our price in 1991 from $37.50 to $55 per thousand cubic feet. This new price approximates, to some extent, the long run replacement cost of helium. I want to make that point, because this has some importance.

As a result of this price increase, Bureau sales have dropped from nearly 400 million cubic feet in 1990 to 326 million cubic feet in 1992. However, our revenues have increased from $28 million in 1990 to $32 million in 1992.

What this means in economics is that helium is a relative inelastic commodity. And, however, as a result of this, what has happened is that it has enabled us to increase the debt service payments to the Treasury, which were $9.4 million in 1992 and which increased—we have already made a payment of about $10 million this fiscal year.

This concludes my summary, Mr. Chairman. And, I will be pleased to answer any questions that you may have.

[Prepared statement of Dr. Enzer and related graphics material follow:]

Statement of
Dr. Hermann Enzer
Acting Director, U.S. Bureau of Mines
Department of the Interior
before the
Subcommittee on Energy and Mineral Resources
House Committee on Natural Resources
May 20, 1993

Mr. Chairman and Members of the Subcommittee:

The Department of the Interior appreciates the opportunity to use this oversight hearing to report on the Federal Helium Program and to discuss with the Subcommittee the program's relevance, administration and financing. Current statutory authority for the program resides in the Helium Act Amendments of 1960, Public Law 86-777, which assigns to the Secretary of the Interior responsibilities to conserve helium, to produce helium primarily for essential government activities, and to promote the development of a private helium industry. Since 1925, the Federal Helium Program has been the responsibility of the U.S. Bureau of Mines. Primarily to meet Federal agencies' needs, the Bureau operates crude helium storage and refinery facilities and a 425-mile pipeline. Because of changes in the helium market subsequent to the 1960 Act, several issues relating to the future of the helium program and the accumulated debt need to be resolved.

The 1960 Act directed the Secretary to purchase and store helium for future government use. Under the Act, Federal agencies are required to purchase all major helium requirements from the Bureau helium stocks. The Bureau has an assured supply of helium which at present government consumption rates should last more than 80 years. Some 32 billion cubic feet (Bcf) of helium is stored underground in a natural gas field that is used as a helium reservoir. To finance the crude helium purchase program, the Bureau was given authority in the 1960 Act to borrow from the Treasury Department instead of receiving direct appropriations. The 1960 Act further provided the Bureau a period of 25 years to pay back the capital investment, and the $40 million net worth debt for assets acquired prior to 1960.

Under the 1960 Act, the Bureau's helium program was intended to be self-supporting by establishing a selling price that would cover all costs including the costs of long-term storage and debt amortization. Debt service was to be calculated at compound interest rates. Prior to the Act, the Bureau was the only source of supply for Federal and private helium customers and it sold helium for $15.50 per thousand cubic feet (Mcf). In 1961, the Bureau's price was increased to $35 per Mcf in order to pay for the new helium conservation program over 25 years and thereby comply with the 1960 Act. This price increase stimulated rapid development of private sector helium production which captured Bureau sales to the private sector as private sector prices were well below the $35 per Mcf charged by the Bureau. Thus, the Bureau indirectly met one of the goals of the 1960 Act -- to promote development of a private helium industry. Federal customers continued to purchase helium from the Bureau as required by the 1960 Act. In view of this substantial erosion in

the Bureau's customer base and interest rates that were well above the 3.75 percent rate forecast, Bureau sales and revenues fell far short of expectations. As a result, a total debt of about $1.3 billion has accumulated based on a total principal of $288 million and $1 billion in unpaid interest charges. Total helium debt service costs were about $66 millon in fiscal year 1992. The debt issue will be addressed separately from the Government's role in helium production.

Background

Helium is an inert gas with unique properties. It is used in large quantities in space, defense, and advanced energy systems. Uses include: shielded arc welding, breathing mixtures for deep sea diving, medical purposes, pressuring and purging fuel tanks and vessels in the space program, controlled atmospheres for growing crystals for transistors, heat transfer mediums for nuclear power generators, lifting gas, leak detection, cryogenic refrigerators, chromatography, and applications in superconductivity. In certain uses, there are no currently available substitutes that can approximate the performance characteristics of helium. The U.S. demand for helium has increased 8.8 percent annually since 1972, although growth has been highly cyclical and driven by one or two major applications.

Because helium is extracted from natural gas, the production of natural gas and its economics influence helium supply.

The U.S. Bureau of Mines' role in helium matters dates back to World War I when the military became interested in using helium as a lifting gas for military dirigibles and contacted the Bureau because of its natural gas expertise. The Federal Helium Program was officially assigned to the Bureau by the Congress pursuant to the Helium Act of 1925. In 1929, the Bureau's Amarillo, Texas, facility was built and began helium production. In 1937, a provision was enacted allowing sales by the Government for medical and other commercial uses. During World War II, demand increased and four more small Government helium plants were built.

New technology increased helium demand in the 1950's. At the same time, dwindling natural gas supplies in the Hugoton-Panhandle Field, the only large helium reserve then known, aroused concerns that without conservation no economic source of helium would remain. Until 1960, the U.S. Bureau of Mines supplied nearly 100 percent of both public and private needs for helium.

In 1960, Congress replaced the 1925 Act with a new statute that established an active Federal role in the purchase and storage of large quantities of crude helium for long-term Federal needs. Congress sought to ensure that a long-term source of helium would be available to satisfy present and future needs. Purchases for helium conservation were made under 22-year supply contracts with private natural gas companies, which added crude helium extraction capabilities to their existing gas processing facilities. Four companies built

five crude helium plants. The Bureau constructed a high-pressure pipeline to transport the helium from Bushton, Kansas, and intermediate points, to the Bureau-owned Cliffside Field near Amarillo, Texas, for storage.

After passage of the 1960 Act, a Federal price increase stimulated the emergence and growth of a vigorous private refined helium industry. Today, private industry supplies approximately 90% of the refined helium market, 3.3 Bcf annually, including exports. In 1991, 10 companies owned and operated helium plants producing crude helium, pure helium, or both.

Customers

The 1960 Act specifies that the Federal agencies will buy their major helium needs from the Secretary of the Interior. Direct helium purchases by the Department of Defense (DOD), the National Aeronautics and Space Administration (NASA), the Department of Energy (DOE), and the National Weather Service constitute most of the Bureau's Grade-A, refined, helium sales. The remaining helium sales to Federal agencies are made through contract distributors, who purchase equivalent volumes of helium from the Bureau as described in the Code of Federal Regulations (30 CFR 602). Some of the contract distributors also have General Services Administration helium supply contracts. Distribution costs under these contracts are generally more economical for the Federal installations because a local contractor's existing distribution system is used rather than the Government's more distant source of supply.

We believe that the current Federal Helium Program is satisfying Federal customer needs. The General Accounting Office agreed with that opinion in its October 1992 report. For example, NASA space shuttle missions have required the delivery of more than 48 million cubic feet of government-owned-and-purified helium so far in fiscal year 1993 to purge and then recharge shuttle fuel tanks. More than 170 railroad tank cars and six highway trailer units filled with gaseous helium have left the government's Amarillo, Texas helium facilities for the Kennedy Space Center during this period in response to orders, some of which were filled within one day.

Bureau sales to the Federal agencies or their contractors totaled 350 million cubic feet (MMcf) in fiscal year 1991 and 326 MMcf in fiscal year 1992. Of these amounts, direct sales to Federal agencies such as NASA totalled 212 MMcf in fiscal year 1991, and 221 MMcf in fiscal year 1992. For the first half of fiscal year 1993 direct sales are running slightly ahead of the sales a year ago.

4

Helium Operations

The Federal Helium Program, includes the production, conservation, sale and distribution of helium and involves the management of helium program facilities and resources to:

a. Meet the current helium demand of all Federal agencies. This includes operation, utilization, and maintenance of helium plants and shipping containers (high-pressure cylinders, semitrailers, railway tank cars, liquid helium dewars, and liquid helium semitrailers) for the production and distribution of helium to those agencies.

b. Meet the foreseeable future helium requirements of essential Government programs. This includes operation, utilization, and maintenance of natural gas and helium storage fields and gas gathering, metering, transportation, and injection well systems for the conservation and storage of helium and helium-gas mixtures.

c. Conduct investigations and evaluations for improving aspects of the helium program. This includes the development of more efficient methods for producing, distributing, conserving, and storing helium, and the improvement of techniques for locating natural gasfields and evaluating their helium content for inclusion in the U.S. helium resource base.

The Bureau currently owns one helium plant and the Cliffside storage reservoir in Texas, and related pipelines in Texas, Oklahoma, and Kansas.

Determining that new reserves of helium had been located and that the storage requirements of the 1960 Act had been met, the Department in 1971 terminated the supply contracts. Later, private industry was allowed to use the Cliffside Field for storage of its excess crude helium for a fee and continues to use the storage system. The Cliffside reservoir thus contains crude helium purchased under contract by the Bureau and privately owned helium stored under contract. Excess crude helium production of private industry extracted from natural gas is stored and then returned as needed to the owners for purification and sale to satisfy private industry demand.

In fiscal year 1992, obligations of the Federal Helium Program amounted to $19.3 million and revenues totaled $32 million. Net revenues provided for a debt service payment of $9.4 million in fiscal year 1992. Full-time employee (FTE) utilization was approximately 220. During that year, 868 million cubic feet (MMcf) of private helium were delivered to the Bureau's storage system and 704 MMcf were withdrawn for a net increase of 164 MMcf. Together with the withdrawal of approximately 300 MMcf for Government use, one-third of the world's demand for helium was redelivered from the government-operated storage field.

Borrowing Authority

In 1960, the Congress provided borrowing authority which was not to exceed $47.5 million per year. Eventually, $252 million was borrowed to purchase helium. An underlying premise of the 1960 Act was the expectation that helium sales by the Bureau would eventually make the program self-supporting. In 1961, in order to comply with the 1960 Act's requirement to finance the helium conservation program, the Secretary raised the Bureau's pure helium selling price from $15.50 per Mcf to $35.00 per Mcf.

Price and Competition

This price was based upon a sales volume forecast for the total demand for U.S. helium. That volume failed to materialize. Although the price increase did meet the 1960 Act's goal of stimulating the development of a private refined helium industry, the private sector effectively undercut Government helium sales to the private market by selling helium below government prices.

Debt Cost

The cost of borrowing increased substantially above the 3.75 percent interest rate projected in 1960. Therefore, because of: (1) significant shortfalls in market volumes primarily due to a much greater participation by private industry than anticipated, and (2) significantly higher interest rates, debt service payments were not met as envisioned under the Act.

The continued loss of sales to the private helium industry caused the helium program to suffer severe shortfalls of revenue that required borrowing from the Treasury during the 1960's and early 1970's. Through 1973, approximately $252 million was borrowed to meet the payment requirements under the 22-year supply contracts. In 1971, the conservation contracts were terminated. Although revenues generated have been sufficient to cover operating costs, the program has generated only a relatively small amount (about $67 million) over the last 30 years, to amortize the debt. The result is that the debt has grown to about $1.3 billion.

The Bureau, the Department of the Interior, and others have been concerned about this debt for many years, and provided testimony in 1969 that debt growth was becoming a financial burden.

Recently, the following actions have been taken to address the helium debt:

- In 1985, the Secretary of the Interior signed a Secretarial Issue Document seeking to amend the Helium Act to eliminate all or some of the debt.

- The budgets for the Department of the Interior from fiscal year 1988 to fiscal year 1991 assumed the sale of certain helium assets and debt cancellation. However, appropriation statutes for the Department of the Interior beginning in fiscal year 1988 have banned the closure of any operating helium facility.

- In 1989 the Secretary of the Interior sent to the Congress a legislative proposal to phase out the Federal Helium Program and cancel the debt. This proposal was introduced as H.R. 2541 in 1989, but no action was taken on it by the former Subcommittee on Mining and Natural Resources.

- The Chairman, Subcommittee on Mining and Natural Resources, requested in 1990 that the General Accounting Office study the Federal Helium Program and report on, among other things, whether the Program debt in the Helium Fund should be cancelled or repaid. The report, "Meeting Federal Needs for Helium," issued in October 1992, recommends that the debt be cancelled. The report states that this action would not adversely affect the Federal budget because the debt consists of outlays that have already been appropriated and of interest that is a paper transaction, not an outlay.

- In fiscal year 1992 and fiscal year 1993 President's budgets, the Bureau of Mines proposed to allow Federal helium customers to purchase helium from the private sector. Authorizing language to amend the 1960 Act for this purpose was sent to the Congress, but no action was taken on it.

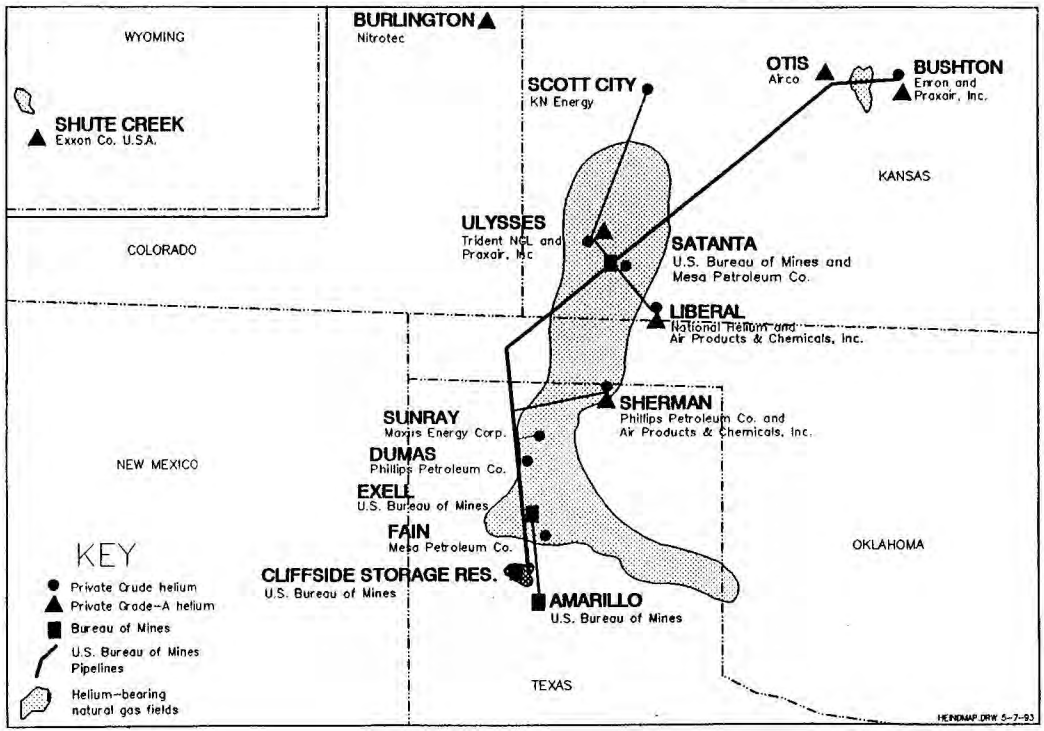
In 1991, the Bureau increased the price of helium by 47 percent to $55 per Mcf for the Federal agencies. The new price approximates the current replacement cost of helium. As a result of the price increase, Bureau sales have dropped from 393 million cubic feet in 1990, to 350 million cubic feet in 1991, and to 326 million cubic feet in 1992. However, revenues have increased from $28.2 million in 1990, to $29.5 million in 1991, and to $32 million in 1992. A repayment of $9.4 million was made to the Treasury in fiscal year 1992 and a $10 million repayment has been made in the current fiscal year for debt retirement.

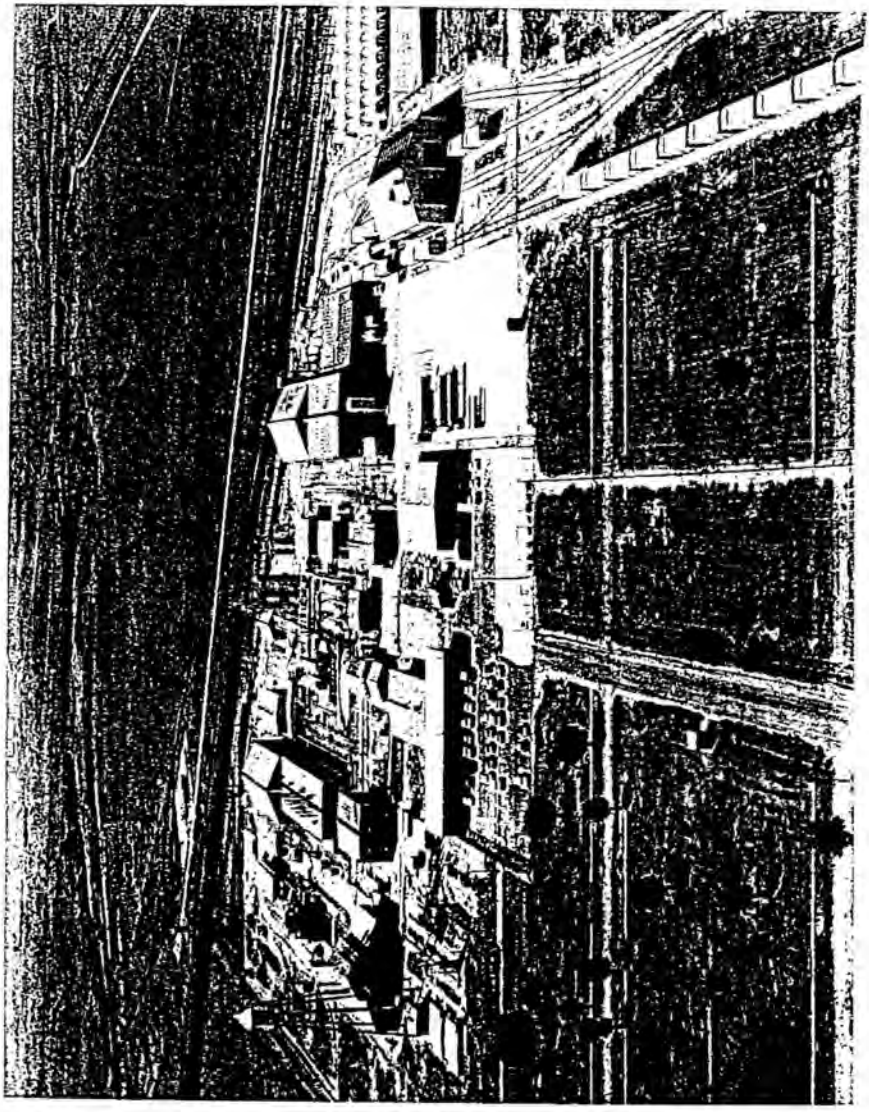
Mr. Chairman, this concludes my prepared remarks. I would be pleased to respond to any questions from the Subcommittee.

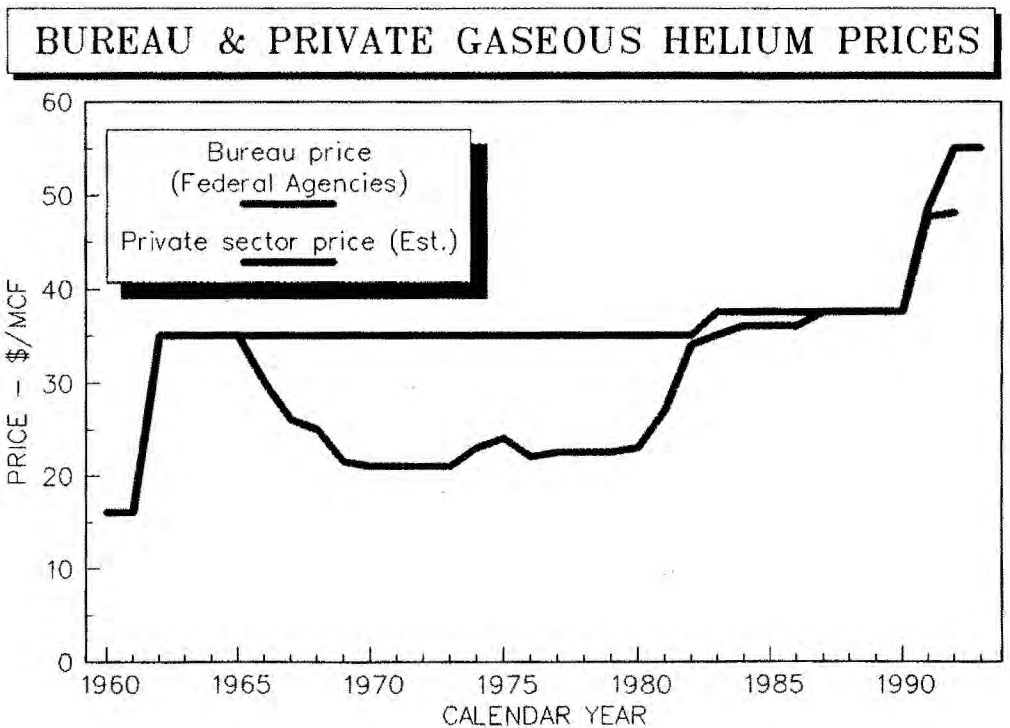


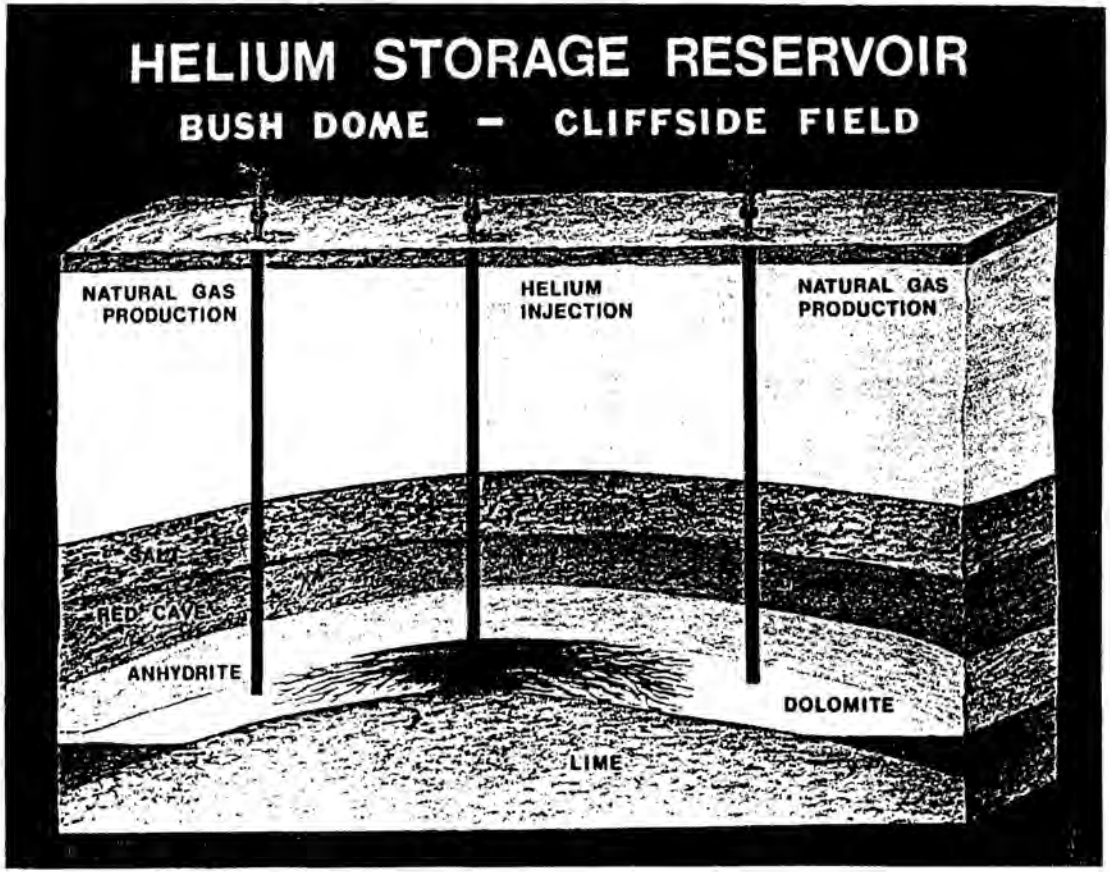
Graphics to accompany the statement of
Dr. Hermann Enzer
Acting Director, U.S. Bureau of Mines
Department of the Interior
before the
Subcommittee on Energy and Mineral Resources
House Committee on Natural Resources
May 20, 1993

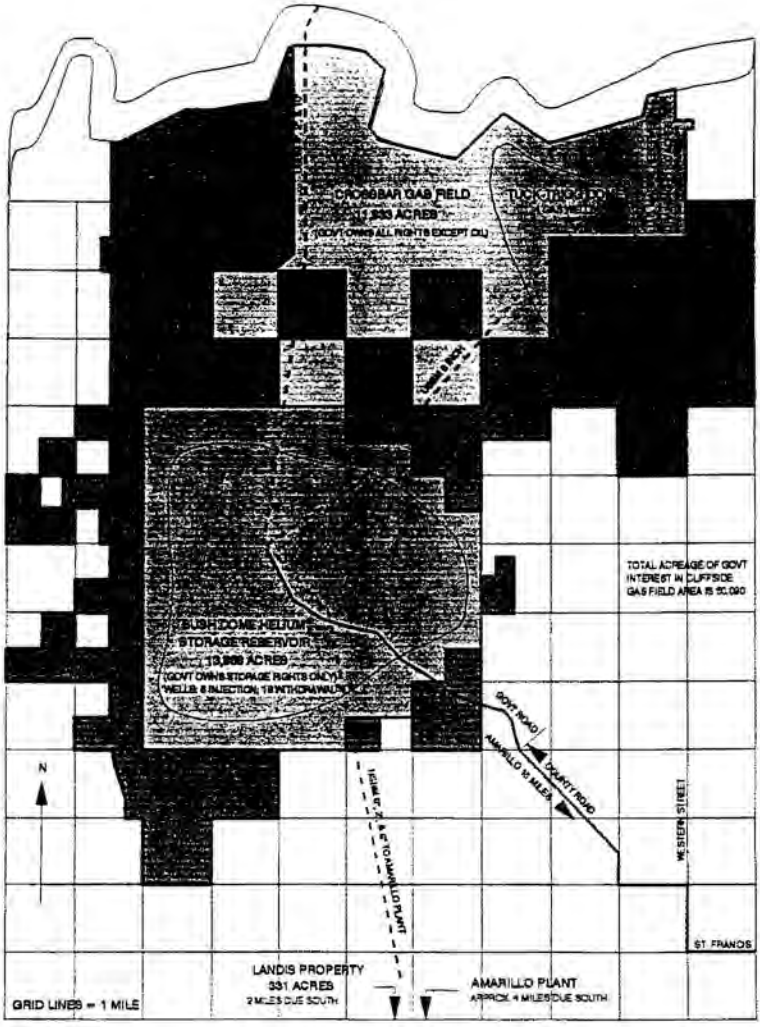
HELIUM INDUSTRY SYSTEMS MAP





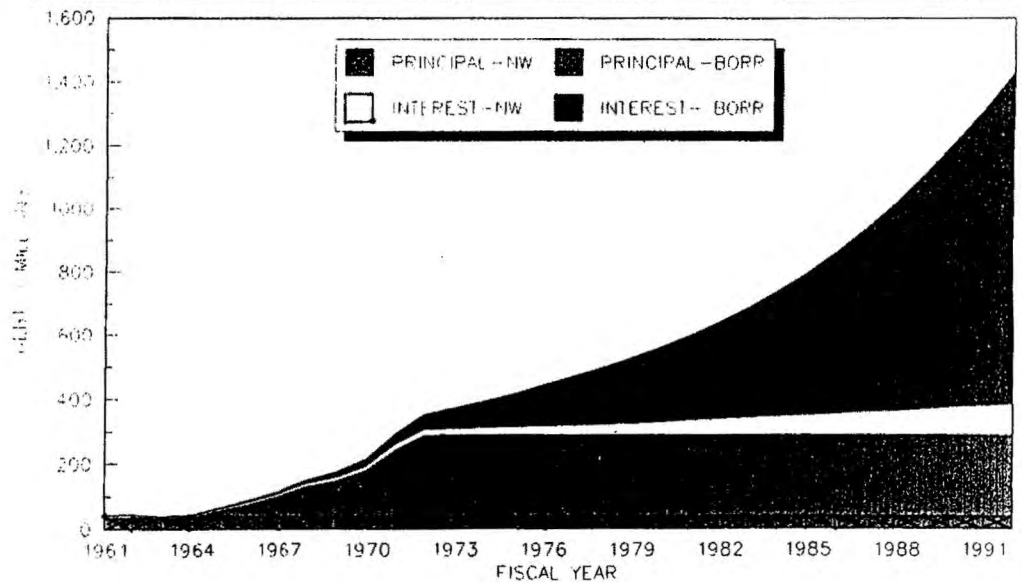

BUREAU & PRIVATE GASEOUS HELIUM PRICES
Bureau price
(Federal Agencies)
Private sector price (Est.)
PRICE - $/MCF
60
50
40
30
20
10
0
1960
1965
1970
1975
1980
1985
1990
CALENDAR YEAR


HELIUM STORAGE RESERVOIR
BUSH DOME – CLIFFSIDE FIELD
NATURAL GAS PRODUCTION
HELIUM INJECTION
NATURAL GAS PRODUCTION
SALT
RED CAVE
ANHYDRITE
DOLOMITE
LIME



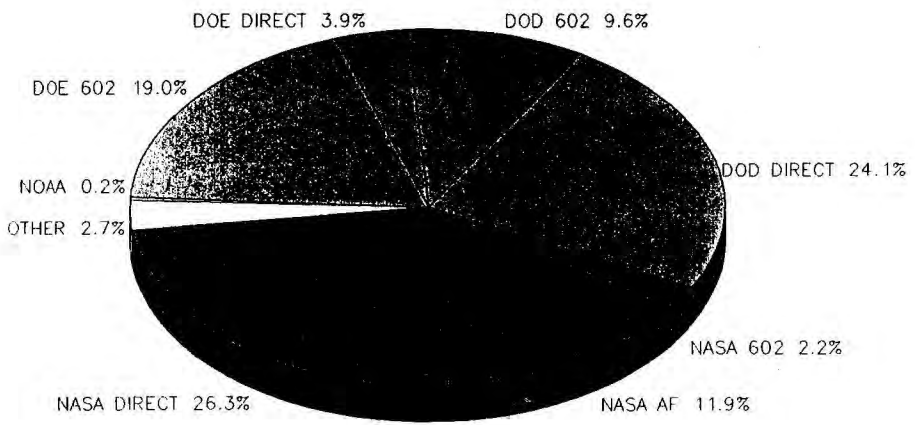
GOVERNMENT OWNED RIGHTS IN CLIFFSIDE GAS FIELD

HELIUM OPERATIONS PROGRAM DEBT
(Net Worth and Borrowings)



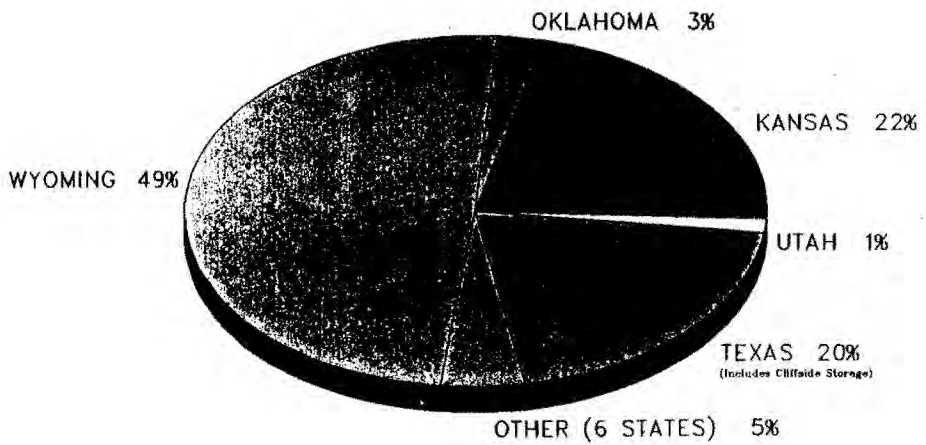
FEDERAL AGENCY SALES

(Total FY-92 Federal Agency sales = 324.8 MMcf)

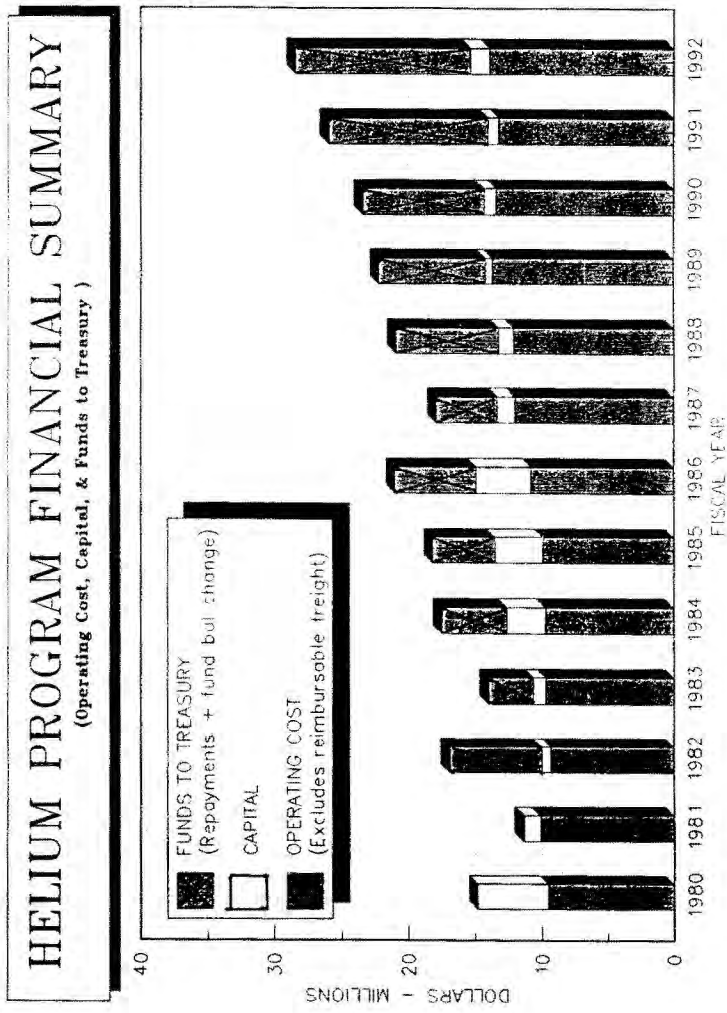


U.S. HELIUM IN HELIUM-RICH NATURAL GAS

(Total measured reserves = 248.7 Bcf helium)
January 1991



UNITED STATES HELIUM MARKET
PI EXPORTS
PI DOMESTIC SALES
BUREAU SALES
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992
FISCAL YEAR


HELIUM PROGRAM FINANCIAL SUMMARY
(Operating Cost, Capital, & Funds to Treasury)
FUNDS TO TREASURY
(Repayments + fund bal change)
CAPITAL
OPERATING COST
(Excludes reimbursable freight)
DOLLARS - MILLIONS
0
10
20
30
40
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
FISCAL YEAR

Chairman LEHMAN. Thank you very much. And, let me say that I appreciate all of the testimony and the work that each of you has done on this issue.

Mr. Duffus, first of all, let's be real clear here on the financial situation which you state has kind of clouded the whole issue and overshadowed the discussion of the substantive issues here.

Does whether or not the Bureau of Mines pays off this debt make any difference at all in the financial picture as far as the deficit is concerned?

Mr. DUFFUS. No, it does not, Mr. Chairman. What we have said is that there are two components of the $1.3 billion debt, of which more than $1 billion is interest.

Forty million dollars, as Ms. Fleischman said and as we have reported, represents a valuation of the program's assets in 1960.

The funds were appropriated and recorded as outlays in the years in which they were expended. So, the check has already been written for that $40 million, so to speak.

And, $252 million in the 1960s and 1970s that was used to buy the inventory also represented appropriations that were recorded as outlays in the years in which they were expended. So, the check also has been written for that $252 million.

That leaves the $1 billion in interest that the government owes itself.

We are saying that's simply a paper transaction. It's taking money out of one pocket and putting it in another pocket. So, it really has no affect on the federal budget.

Therefore, we feel that the program debt should be cancelled and that the focus should be on the program's objectives and how to best meet the federal needs for helium. But, we feel that you need to set aside the debt question.

And, the simple way, in our view, is to cancel the debt.

Chairman LEHMAN. Well, did past appropriations for the Helium Program contribute to the deficit?

Mr. DUFFUS. Yes. When appropriations are made and outlays occur and you are in a deficit situation, you are going to increase the debt. On the other hand, if you are in a surplus situation you are going to decrease the surplus that could be used against future deficits.

Chairman LEHMAN. Now, I understand that in your report you do not specifically recommend that the program be terminated. However, you also don't recommend that we keep it.

Do you have a position on that?

Mr. DUFFUS. The way we came out in our report was that we believe it's a public policy decision. We believe that the Congress should decide.

What we have pointed out, though, is that, first of all, the Congress needs to reassess the Act's objectives. In our view, and as others have pointed out at this table today, the Bureau has met the objectives of the Helium Act of 1960.

So, the Congress needs to decide if it wants to keep these objectives and say, "That's what we want to do."

If, on the other hand, the Congress decides that the objectives should be changed, then a program can be designed to meet those objectives.

Chairman LEHMAN. Okay.

Mr. ENZER. Mr. Chairman, would you permit me to make two points in connection to the question you asked?

Chairman LEHMAN. Certainly.

Mr. ENZER. Two things, I think. One of them is I think I should stress and bring to your attention that the Department of the Interior has started—has tried for many years to present the debt situation to Congress. I have testimony here of an Assistant Secretary of the Interior to a Subcommittee.

And, let me just read it. It is very brief. He is, in this excerpt, responding to a question. And, he is saying, "Yes, Senator Allard," . . . , again, this is in 1969, "when the Helium Program was put into effect in 1960–61, it was expected at that time that the Helium Program would start paying out by 1971. And, it would have if it had followed the curve as shown on the chart. However, as mentioned in the testimony, beginning in 1966, there came a rapid drop off in the use of helium and now we find ourselves in the most precarious state that we have ever been in."

And, so because it did not follow the expected use, we are not up to speed and, consequently, we are not able to pay out. And, we have testified over the years before various committees that the debt situation is getting serious and should be dealt with.

The second comment that I would like to make, Mr. Chairman, is that the alternative to the debt would have been that the Bureau of Mines would have ratcheted up its price from $35 to, say, $120. And, you, Congress, would have appropriated this sum of money annually to our customers.

So, the alternative of having a debt, of this size that is, so to speak, staring us in the face, would have been that gradually you would have, through appropriations, appropriated the similar amounts of money. So, you know, it would not have made too much difference. One situation is as we have it now where you have all of it in one block; and, the other one would have been where over time Congress would have appropriated appropriate amounts of money to the federal customers that we serve.

Chairman LEHMAN. Mr. Duffus, the federal government, the Bureau of Mines I guess, charges $55 per thousand cubic feet. I understand the private industry price is $45

Would the federal budget realize—would it benefit from purchasing it instead from the private side?

Mr. DUFFUS. No. I think it would have a opposite effect.

Mr. Chairman, I was remiss earlier by not mentioning that I have with me today Mr. Cotton and Mr. Ellis. Mr. Cotton is an Assistant Director who worked on our October 1992 helium report. Mr. Ellis was the Assignment Manager. They are here to assist in answering detailed questions.

Getting back to your question, Mr. Chairman, we believe it would have the opposite effect. Right now, the federal government's outlay for the Bureau's program is represented by the recovery of their operating costs, which is currently $37.50.

If the federal agencies were to purchase from the private market at the $45 dollar price, there would be an additional outlay of $7.50. So, it would not have a beneficial effect on the budget.

Chairman LEHMAN. Ms. Fleischman, do you agree with the recommendations of the GAO in their recent report?

Ms. FLEISCHMAN. Yes. We have read the GAO report which, I must say, I thought was extremely well done and very thorough.

The GAO is right, it seems to me. Obviously, there is a public policy decision to be made here.

Depending on which alternative the Congress settles upon, it must consider what the effect will be on the private sector and potentially on the budget of the United States. And, I don't disagree at all with GAO on the subject of the debt.

I think—I mean, when you start tossing around figures in billions, that tends to cloud the issue at any time. But, he's right. I mean, this is a debt that we owe to ourselves. We created it ourselves. We owe it to ourselves. So, it really is not the issue, the public policy issue.

The public policy issue is what do you do with the Helium Program. And, that is a determination that Congress can only make.

But, we do agree with GAO, yes.

Chairman LEHMAN. The former IG, Mr. Richards, recommended eliminating the program. That's not your position?

Ms. FLEISCHMAN. I think that having read the GAO report—I don't know whether Mr. Richards had read this or not. But, I think having read that and looking at all of the analysis that GAO has made of the effects or the potential effects of the various alternatives that I would have to conclude that if Congress decides—I mean, Congress obviously can decide to eliminate the program and that's fine. It's up to Congress.

But, it does need to consider all of the potential effects on the private helium industry.

Chairman LEHMAN. Thank you very much. One other question of Dr. Enzer.

How does the Bureau set the price for helium?

Mr. ENZER. This is not an easy question to answer, Mr. Chairman. But, let me try.

The helium market is a market that is dominated by relatively few suppliers. So, there is—it's not a market like a market for refrigerators or for bread.

And, the helium price is not publicly published in newspapers or something like that. But, we have been in the helium business for a long time, so we do know what the prices are that are being charged in the private helium market.

The long-term replacement cost of helium—we estimate that the long-term replacement cost of helium is between $45 and $55. As we just heard, the price in the private market is around $45 right now at the lower end of this interval that I just mentioned.

What the Bureau tries to do is to take the market price, the $45 and add a premium to that price of between $5 and $10 so that we do somewhat discourage sales by the Bureau of Mines or deter purchases by private customers from the Bureau of Mines because, as you have heard several times, the primary intent of the legislation is to promote a private industry. And, we do not want to follow a pricing policy that jeopardizes the position of the helium industry.

We haven't always followed that in recent years, as you saw from this board we had. We followed it for a long period of time, but we have gotten back in this last price increase to this gap. The gap right now is about $10.

So, in general, this is how we try to price federal helium.

Chairman LEHMAN. Thank you. Mr. Thomas.

Mr. THOMAS. Thank you very much, Mr. Chairman. I would like to ask a few questions, I guess.

I certainly am not an expert in this nor do I have any, personal interests particularly. But, I must tell you that I am a little astounded at what I am hearing in terms of the value of money in this project.

Would you, Ms. Fleischman—in this business that we owe ourselves, I don't understand that. I guess you could say that about the federal debt, couldn't you?

If you have a capital asset and you are in business and you can dispose of that asset for $250 million, then you could replace something you are borrowing now with the $250 million, couldn't you?

Ms. FLEISCHMAN. Yes. Technically, that is right.

Mr. THOMAS. Well, why do you say that we owe ourselves and there is no value in this asset?

Ms. FLEISCHMAN. I did not say that there is no value in the asset. I said that when you consider the debt—and the interest debt, in particular, is a debt that we owe to ourselves, we created ourselves.

Mr. THOMAS. Well, what's the difference between this one and any other debt we owe ourselves in the federal government?

Ms. FLEISCHMAN. I think, to a certain extent, it would matter as to how the debt was created and what the debt was for.

Mr. THOMAS. It doesn't matter when you go into the market.

Ms. FLEISCHMAN. I'm not an economist and I'm not—I'm sorry?

Mr. THOMAS. It doesn't matter when you go into the marketplace and have to finance the federal debt.

Ms. FLEISCHMAN. Well, I have to tell you, Mr. Thomas, that I am not an economist and I am not an expert on the public debt. Perhaps GAO would be better able to answer your question here.

But, I think that it does make a difference as to how the debt was created and what the debt was for.

Mr. THOMAS. All right. Let me ask Mr. Duffus. You say that it doesn't have any impact on the budget.

Let's assume for a moment that this is an asset that has value. You would agree to that, wouldn't you?

Mr. DUFFUS. Yes. I agree with that.

Mr. THOMAS. If you dispose of the asset and replace some money we are now borrowing because we owe trillions and could reduce the cost that we are now paying for money we don't have, how can you say it doesn't impact the budget?

Mr. DUFFUS. Well, when we talk about the asset, we need to have some understanding of what we are talking about. The $252 million or the $300 million of the $1.3 billion would be the asset and the other component would be the interest.

Mr. THOMAS. Yes.

Mr. DUFFUS. Okay. I would like to ask Mr. Cotton, Mr. Thomas, to assist in the response.

Mr. THOMAS. Okay.

Mr. COTTON. The big difference between this program and other types of federal outlays is the fact that the people who are buying from the Bureau are other federal agencies. So, if you need a thousand cubic feet of helium and you are appropriated $55 then, in essence, you are paying the Bureau $37.50, which is their operating expenses to produce that helium, and then you are taking what is left over, which is $17.50, and you are turning it back to the federal government.

So, in effect, the Congress is appropriating money to, say, NASA for its space program which they are giving to the Bureau. The Bureau is taking out its operating costs and returning the rest to——

Mr. THOMAS. But, it would cost more to buy it than if you went in the marketplace.

Mr. COTTON. Well, it doesn't, in the fact that the Bureau's operating expenses, which are $37.50 and not $55——

Mr. THOMAS. But, if you didn't have the program you wouldn't have any operating expenses. I don't mean to argue with you, but the real issue here is whether or not this is a kind of reasonable government program.

Mr. COTTON. Yes. But, let me just make one more point.

You would not get rid of NASA's needs for helium. So, you would still have to appropriate and expend funds to meet those needs.

Mr. THOMAS. Sure. Okay.

Mr. COTTON. Right now, you would be paying the private industry $45 for the same thing that you could buy from the Bureau for $37.50.

Mr. THOMAS. Well, that isn't true. You just said it's $55.

Mr. COTTON. Because the difference between $37.50 and $55——

Mr. THOMAS. Okay. If you used that reasoning, we ought not to have any private industry at all. We ought to have a government program to provide all the needs of the federal government.

Would that——

Mr. COTTON. And, that is, in essence, what is happening right now, because private industry is meeting private needs and the federal government is meeting federal needs.

Mr. THOMAS. So, we ought to expand that to other needs of the federal government.

Mr. COTTON. It depends upon cost efficiencies, for one thing.

Mr. THOMAS. It doesn't for me. It depends on a philosophy. And, I don't agree with that philosophy doing this.

I think this is a program that you take a look at and say, "Is this something that needs to be done because it isn't done somewhere else? Have times changed in 30 years?"

Have you ever recommended, Doctor, that the helium program be terminated?

Mr. ENZER. I have not, Mr. Chairman. I am an Acting Director right now.

But, the Bureau of Mines——

Mr. THOMAS. I don't mean you personally. I mean, the agency.

Mr. ENZER. Well, let me respond this way. We are in the process of preparing an options paper for the Department.

One of the options is what you just mentioned, namely that the program be discontinued as a federal program and the helium supplies be provided in the future from the private market.

Mr. THOMAS. Let me ask. Why would it take 30 years to come to that conclusion?

Mr. ENZER. I don't think it has taken 30 years, Mr. Thomas.

Mr. THOMAS. Twenty?

Mr. ENZER. No, no. It hasn't taken 20 years. It's—to follow up what Mr. Duffus said, Congress, when it passed the Act in 1960, had certain expectations about the future technological development and what amounts of helium might be needed. But, bygones are bygones.

We are sitting here now with helium in this reservoir. And, the question is, "How do we handle that in the future?"

Mr. THOMAS. I understand that.

Mr. ENZER. And, if you look at it—let me follow up on the calculation. If you look at it, at the costs that might be involved of running the program as it is right now or shifting over to having private industry supply it, from a fiscal point of view there wouldn't be much difference.

So, then the question would be, "What would the government do with the 32 billion cubic feet of helium it has in the storage facility and how do we approach this?"

Mr. THOMAS. I understand. And, you know, obviously there are lots of details.

But, there is a basic issue involved here, it seems to me. And, the basic issue is, is there a need for this government program to continue.

And, that's a question you can ask of most any government program and should. There is no discipline in the government to stop anything. There is in the private sector.

When you don't make a buck, you go out of business. When the government doesn't make a buck, it goes on. And, you simply ask for more tax money. And, that's really what is the case here.

Why didn't you charge what it costs to pay the interest on the money, the $125?

Mr. ENZER. As—I do not know, Mr. Thomas, why the past pricing decisions were made. Again, the effect—the end effect wouldn't have been too different.

We would have charged $100 per thousand cubic feet instead of $35.

Mr. THOMAS. Right.

Mr. ENZER. You would have appropriated $100. We would have been able to pay the interest. And, perhaps in retrospect, that is what should have——

Mr. THOMAS. Let me tell you something else that would have happened. The agencies would have said, "We don't want to do this anymore," because they would have had to pay what it costs for you to——

Mr. ENZER. They would have had to pay except to say, Mr. Chairman, that for the major uses helium is put, the total cost, for example, of a space shot is large. And, the amount of helium that NASA uses, for example, is a relatively small amount even if it were to cost $100.

But, you are quite right. The agency's customers probably would have complained.

Mr. THOMAS. And, certainly, you know, I am not critical of you. I know each of you didn't establish this program.

But, I am critical of this kind of an operation that just seems to go on when things change. I don't mean to pick on it particularly, but, it is clearly an example of something that somebody should have changed a long time ago. The agency will say, "Well, Congress said this," and I'm sure that Congress will say, "Well, why didn't you tell us," and, you know, all that sort of stuff.

But, the fact is that you have to have some discipline in it. And, the price is normally part of it.

Thank you, Mr. Chairman.

Chairman LEHMAN. Thank you very much. And, we will let the gentleman from Texas ask questions, if he would like, as well.

Mr. SARPALIUS. Mr. Thomas, I would like to explain a few things on this that might be of interest to you. If this interest was forgiven—and, Mr. Duffus, you can clarify or tell me if I'm wrong—that from that point on, this operation actually makes money for the federal government. It's one of the few projects we have that makes money for the taxpayers. It makes somewhere from $7 to $12 million a year.

But, the reason you don't show that is because of the interest that has been added on to this debt since 1960. We've never been responsible on addressing that interest debt.

It is paperwork within the government. And, we didn't go out and borrow money for this. It just accumulated since 1960.

And, if the debt is forgiven, we would have an operation here that employs around 250 people. We are encouraging the private sector. We are helping create, you know, hundreds of jobs from that perspective.

It's a good operation. The only problem is the interest that we have on that note right now. And, that is what we are trying to correct with this legislation.

Mr. THOMAS. Would the gentleman yield?

Mr. SARPALIUS. Sure.

Mr. THOMAS. I understand that. I guess I don't agree with it entirely.

You know, that money came from somewhere. And, it has been an awfully long time since the federal government had $250 million they didn't have to borrow to invest in something. So, it's legitimate to have that.

The other is a philosophical issue. And, that is, you know, why should we be doing it in the federal government if you can do it outside.

You are hiring 200 people to do this. There is a plant that they don't do the same things in Wyoming where they hire eight.

I would have a hunch that, you know, there are some differences. So, I understand what you are saying, Mr. Sarpalius.

But, I guess I hate to see us manipulate the financing of it to justify the continuation of a program that, at least, arguably doesn't need to be there at all.

Mr. SARPALIUS. I respect your opinion. But, I just feel differently.

Chairman LEHMAN. Let me ask just a couple of more questions. The IG said, in response to criticism, that the Bureau of Mines was not collecting a required $5 surcharge for helium sold to private purchasers. And, the Bureau rescinded the requirement to collect that fee.

According to the IG, that fee would have raised $800 thousand over two years. Dr. Enzer, how do you justify abandoning that fee?

Mr. ENZER. Mr. Chairman, the fee was initially established to add to the gap that I described before between the private price and the price that we charged to federal agencies. It was something that we thought we wanted to do.

We have a Solicitor's opinion that told us that we could not collect that fee even if we wanted to. And, we have recently abandoned charging the fee, because we would like to take care of it in our future pricing policy.

Once again, the purpose originally was to have a premium, a positive premium, between market price and the Bureau of Mines' price to discourage purchases by the private sector from the Bureau of Mines.

And, as I mentioned earlier, our gap right now is $10. And, if this program continues, we will have a pricing policy in place to ensure that there always is at least a gap of $5 between market price and Bureau price.

So, we are doing—we are carrying out the intent of this fee by a different mechanism.

Chairman LEHMAN. Also, is there a royalty collected for helium on federal lands?

Mr. ENZER. Yes, sir, there is. The receipts currently are approximately $5 million or so for royalties received from helium that is owned by the federal government.

Mr. SONNEK. Could I correct that in one way?

Mr. ENZER. Go ahead.

Chairman LEHMAN. Certainly.

Mr. SONNEK. That is not considered a royalty. We entered into a contract with Exxon, and that is a fee that we collect from Exxon.

We do collect a royalty on certain fields where natural gas is owned by the government. And, if there is a royalty payment, we may get one-eighth of that.

But, the Exxon contract is a fee, not a royalty.

Chairman LEHMAN. Again, what is the difference between a royalty and a fee?

Mr. SONNEK. A fee, as far as I am concerned, was something that was negotiated with Exxon when we entered into contract with them.

Mr. ENZER. The end effect is the same, Mr. Chairman. There are receipts to the federal government from helium that the federal government owns.

And, that amounts to about $5 million annually. The $5 million would continue to accrue even if the Bureau's Helium Program were to be terminated.

Chairman LEHMAN. So, even if we closed down the plant in Texas, that would continue?

Mr. ENZER. Yes.

Chairman LEHMAN. Also, you know, there has been some talk and, indeed, one of the bills would sell the federal helium reserves here. How much money would that generate?

Mr. ENZER. I do not know, Mr. Chairman. I just—I have no good sense. And, I have not found anybody else who has a good sense.

But, my best guess is that if it were sold all at once we probably would not get much more than 10 cents on a dollar. But, again that is just a subjective guess. I do not know.

If it's sold gradually over time, presumably we would get much more. But, we have—as I say, I have not found anybody who knows how much money we would get for that.

One can make some calculations. One can make some assumptions about the future market prices, about the future growth of helium demand.

And, if you wish, we can do some analysis in this area and send you some calculations. But, right now I don't have any good sense of what we could get for that.

Chairman LEHMAN. Mr. Duffus.

Mr. DUFFUS. I would just add that when you talk about selling the inventory, another thing to keep in mind is that if you sell it too quickly it would most likely put the private crude helium industry out of business. And, if you sold it gradually over time, because it is so large, then it would probably have little effect, at least in the short term, in reducing the budget deficit.

They are two other considerations that I think need to be kept in mind.

Chairman LEHMAN. If this were 1960 all over again, or if we were establishing how we were going to get helium to federal agencies today that needed it, would you go about it this way?

Mr. DUFFUS. Would I go about it this way? Well, maybe my colleagues could offer something along those lines.

Chairman LEHMAN. What I am getting at, is there a national interest served here by having the federal government own——

Mr. DUFFUS. Well, most certainly, when it was created there was a national interest to be served. And, as we have pointed out, a lot of changes have occurred. And, the objectives of the Act have been met.

And, so if the Congress decides that it wants to continue to meet those objectives, then fine. But, the national needs have been met.

The Bureau has met the agencies' major requirements for helium. They have fostered a private industry. And, they have conserved helium.

Those were the three objectives of the 1960 Act. They have been met.

So, where do we go from here? We are not recommending where you go from here. But, we are saying if you are going to go from here to a different place, then you need to realize that there are trade-offs, alternatives, impacts and interrelationships among program objectives so that when you do make decisions to go in a different direction you have to keep these in mind.

Chairman LEHMAN. Thank you. And, let me ask Dr. Enzer one other question.

Industry believes that they can transport helium cheaper than the Bureau can. How do you respond to that?

Mr. ENZER. Would you respond?

Mr. SONNEK. Private industry provides most of their helium as liquid, in liquid, over-the-road semi-trailers. Probably your question relates to the fact that a lot of our helium is shipped, particularly to the Cape, in railroad tank cars. These are in use because we have had these for some 30 or 40 years.

I am not sure how much cheaper this might be or higher costs. But, a study was made.

We do know that if NASA was to go from our inventory using the tank cars that they would have a cost of, oh, $6, $7, $8 million to go to equipment that would allow them to use the liquid helium.

Dale, can you respond to that any further?

Mr. BIPPUS. The only thing I would add is that we do transport our product as a gas. Therefore, we don't incur the additional cost of liquefaction.

But, they are correct in saying that it is cheaper. But, we would have had to buy additional containers. So, we stayed with the gas system.

Chairman LEHMAN. Thank you very much. Are there any other questions from members of the panel?

Mr. Thomas?

Mr. THOMAS. No.

Chairman LEHMAN. Mr. Sarpalius?

Mr. SARPALIUS. No, thank you.

Chairman LEHMAN. I want to thank each of you for excellent testimony today and for all of your cooperation. We appreciate it.

Is Mr. Cox in the room? Let's bring Congressman Cox out and let him make a statement. And, then we will proceed to the industry panel.

And, we will reserve for members of the Committee the right to submit questions and ask you to respond to them if you could.

Mr. DUFFUS. I would be happy to.

Chairman LEHMAN. Thank ybu. Congressman Cox, welcome to the Committee. We appreciate your being here today.

And, we will put your entire testimony and anything you have accompanying it in the record and allow you to proceed.

STATEMENT OF HON. CHRISTOPHER COX, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. COX. Thank you very much, Mr. Chairman. Even though I have not been present in the room, I have been just beyond the wall listening over the speaker system to the testimony thus far.

And, I have found it fascinating. Some of it I agree with. Other, I do not.

Let me explain why I am here today. I appreciate the opportunity to testify, of course, on the need to reform or preferably to eliminate the national helium reserve.

I've got a letter with me that was written just a few months ago by the Director of the Bureau of Mines, T.S. Ary. I would like to quote from his letter, because it summarizes my purpose as well.

"The government should not be competing with the private sector in the helium business or in any other area where the private sector is capable of satisfying the country's needs."

Mr. Ary also pointed out that at the present time an act of Congress requires government agencies who purchase or use helium to purchase it from the U.S. Bureau of Mines operations. As Director of the Bureau of Mines, he worked to break the federal government's monopoly.

Now, he says in his letter that you might be asking:

"If the Director of the Bureau of Mines, which operates this thing, has made such recommendations, why hasn't something been done?" His answer is in his letter. "The answer is Congress. Congress has prohibited the USBM from selling its helium facilities and/or reducing the number of personnel who operate them in Amarillo, Texas."

Mr. Chairman, the national helium reserve is a federal program whose time has come and gone. It is the worst kind of governmental anachronism, a program without a clearly identifiable mission, a program that private industry could do more effectively, a program that is $1.4 billion in debt and going further into debt each year.

In his book, *Parliament of Whores,* P.G. O'Rourke said, "The Helium Program is amazingly stupid even by government standards." The 39 Republicans and Democrats who have co-sponsored my legislation to privatize the national helium reserve agree.

As you know, Mr. Chairman, the federal government has produced helium since 1929 and was virtually the sole domestic supplier until the time of the Helium Act in 1960. The Act established the federal helium stockpile in case of a national emergency.

It requires other federal agencies such as NASA and DOD to purchase helium from the Bureau of Mines. Mistakenly believing that all known sources of helium in the United States had been discovered, Congress in 1960 authorized the Bureau of Mines to buy helium from private suppliers.

No private suppliers existed at the time. But, the Bureau of Mines fully expected them to materialize in response to this new market.

To make sure that they did, the federal government more than doubled the price of helium overnight. The Bureau of Mines took $100 million of its own capital, borrowed an additional $252 million and began to escalate helium production.

The Bureau was supposed to sell enough helium to private and public customers to pay off the money borrowed from the Treasury within 25 years. Obviously, Mr. Chairman, this didn't happen.

Private producers of helium attracted by the higher prices discovered that they could extract and refine helium more efficiently than the government. The rapid expansion of private industry's ability to produce helium guaranteed that the federal government wouldn't be able to recoup its losses from the original loan. Which brings us to the present.

As the Congress determines how best to get the federal government out of its current predicament, several facts bear repeating. Under the Helium Act, the original debt of $252 million and accrued interest are to be repaid to the Treasury by 1995 from helium sales. With interest, the national helium reserve is currently in debt $1.4 billion and losses amount to an additional $120 million from interest each year.

Now, I listened to the testimony from GAO, which suggested that perhaps we might ignore this debt. Dr. Enzer, from the Bureau of Mines, said, "Let bygones be bygones." This is a neat trick, if I may say so, simply to ignore a $1.4 billion debt.

Many concerns in America could make money if they could simply ignore their debt and the interest burden that goes with it. But, this debt is, in fact, owed to the American taxpayers and it is backed up by assets.

Normally, a borrower who has assets and defaults on its loan is required, if the lender is secured, to liquidate those assets in payment of the debt. That's precisely the position that the taxpayers stand in right now.

The government's helium operations, we are told, might make—Congressman Sarpalius mentioned this—$7 million or so a year. Most of that money, the majority of it, comes from royalties paid by private producers on their own production.

Exxon, for example, pays $4 million of that amount itself. This operation isn't making money. It's losing money.

Private firms now account for 90 percent of the nation's helium sales, which last year totalled over $300 million. This is of enormous significance, the size of this market, because the United States itself produces 90 percent of the world's supply. We don't need the federal government to do this.

Mr. Chairman, my bill would repeal the Helium Act of 1960 and, thereby, get the federal government out of the helium business altogether. The bill directs the Secretary of the Interior to sell the helium production facilities and other equipment acquired by the federal government over the years to produce helium.

It also directs the Secretary to sell, and to use the language of the bill, "or otherwise dispose of the helium reserve." But, in order to ensure a stable price for helium producers, the transfer to private management will not result in the immediate or even near term sale of this helium into the marketplace.

The bill explicitly requires the transfer to maintain the orderly conduct of markets. Obviously, selling a nine year world supply all at once would not do that.

Finally, and most importantly, all proceeds of the national helium reserve will go to discharge this debt. And, it may not be allocated for any other purpose.

Let me say one final word. The GAO said, in response to your question, Mr. Chairman, that a transaction such as this would have no effect on the budget because it's inter-budgetary.

I say nonsense. What we are doing is liquidating an asset, acquiring funds from outside the government and paying down debt with it.

Mexico has done this very profitably by privatizing assets. They have privatized their state-owned airlines and banks. They are even privatizing wastewater treatment facilities right now.

And, because they have used the proceeds from sales of assets to pay down long-term debt, they have likewise reduced their interest carry. As a result, Mexico was this past year able to produce its first balanced budget in memory. We could do the same thing by wisely getting rid of our unneeded federal assets and using the money to discharge debt.

That is what this is all about. It has a direct and dramatic impact on our national budget.

So, I think this is the time for Congress to act. Let's see to it that helium extraction floats back to where it belongs, to the private sector. Maybe we can do something about our federal budget deficit, which is blimped out.

Thank you, Mr. Chairman.

[Prepared statement of Mr. Cox follows:]

TESTIMONY OF

THE HONORABLE CHRISTOPHER COX

BEFORE THE
SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES
MAY 20, 1993
ON
THE FUTURE OF THE NATIONAL HELIUM RESERVE

Mr. Chairman, and members of the Subcommittee:

I appreciate the opportunity to testify before the Subcommittee today on the need to reform--or, preferably, eliminate--the National Helium Reserve.

Mr. Chairman, the National Helium Reserve is simply a federal program whose time has come and gone. It is the worst kind of governmental anachronism: a program without a clearly identifiable mission, a program that private industry could do more effectively, a program that is $1.4 billion in debt and going further into debt each year. In his book Parliament of Whores, humorist P.J. O'Rourke said, "The helium program is amazingly stupid, even by government standards." President Reagan, President Bush, the National Taxpayers Union, the

Heritage Foundation, Citizens Against Government Waste, and the 39 Republicans and Democrats who have sponsored my bill to privatize the National Helium Reserve agree.

As you know, Mr. Chairman, the federal government has produced helium since 1929 and was virtually the sole domestic supplier until 1960. Mistakenly believing that all known sources of helium in the United States had been discovered, Congress in 1960 authorized the Bureau of Mines to buy helium from private suppliers for conservation. The Act established a federal helium stockpile in case of a national emergency, and required other federal agencies, such as the National Aeronautics and Space Administration and the Defense Department, to purchase helium from the Bureau of Mines.

While no private suppliers existed at the time, Mr. Chairman, the Bureau of Mines fully expected them to materialize in response to this new market. To make sure that they did, the

federal government more than doubled the price of helium overnight. The Bureau of Mines took $100 million of its own capital, borrowed an additional $252 million, and began to escalate helium production and conservation. The Bureau was supposed to sell enough helium to public and private customers to pay off the money borrowed from the Treasury within 25 years.

Put simply, Mr. Chairman, this hasn't happened. Private producers of helium, attracted by the higher prices, discovered they could extract and refine helium more efficiently than the government. The rapid expansion of private industry's ability to extract helium guaranteed that the federal government wouldn't be able to recoup its losses from the original loan.

Which brings us to the present, Mr. Chairman. As the Congress determines how best to get the federal government out of its current predicament, several facts bear repeating:

- Under the Helium Act of 1960, the original debt of $252 million and accrued interest are to be repaid to the Treasury by 1995 from helium sales. With interest, the National Helium Reserve is currently in debt $1.4 billion, and loses and additional $120 million on interest each year.

- Private firms now account for 90% of the nation's helium sales, which last year totaled over $300 million.

- The federal stockpile currently contains 35 billion cubic feet of helium. At our present rate of use, Mr. Chairman, this would last the United States well over 100 years.

Mr. Chairman, my bill, H.R. 1552, would repeal the Helium Act of 1960, thereby getting the federal government <u>out</u> of the

helium business altogether. The bill directs the Secretary of the Interior to sell the helium production facilities and other equipment acquired by the federal government over the years to produce helium. It directs the Secretary to sell, at the best possible terms available to the United States, the actual helium reserve. In order to ensure a stable price for helium producers, this sale will be conducted at the discretion of the Secretary of the Interior and in a manner consistent with the orderly conduct of commercial helium markets. Finally, and most importantly, all proceeds of the sale of the National Helium Reserve will go exclusively to the retirement of federal debt, and may not be obligated or expended for any other purpose.

Mr. Chairman, the National Taxpayers Union has estimated that taking these steps will save the taxpayers $1.72 billion. Let's return some measure of fiscal sanity to our federal budget, Mr. Chairman. The Congress must take steps this year to see to it that helium extraction floats back to where it belongs--the

private sector.

Chairman LEHMAN. Thank you very much, Mr. Cox. Any questions, Mr. Thomas?

Mr. THOMAS. No, Mr. Chairman.

Chairman LEHMAN. We appreciate your testimony. And, we look forward to working with you over the next few weeks. We are going to pursue this matter.

Mr. COX. Thank you very much, Mr. Chairman.

Chairman LEHMAN. Thank you. We will now have the representatives of the helium industry.

We have Mr. Carl Johnson, the Chairman of the Helium Advisory Council and the President of the Compressed Gas Association, with the people accompanying him.

STATEMENT OF CARL JOHNSON, CHAIRMAN, HELIUM ADVISORY COUNCIL AND PRESIDENT OF COMPRESSED GAS ASSOCIATION, ACCOMPANIED BY ART FRANCIS AND GARY CAESAR OF PRAX AIR; DENNIS FAGERSTONE OF MESA, INC.; PHIL KORNBLUTH OF AIRCO GASES; AND BEN REINOELH OF AIR PRODUCTS AND CHEMICALS, INC.

Mr. JOHNSON. Mr. Chairman, thank you. I have with me Art Francis of Prax Air, Dennis Fagerstone of Mesa, Incorporated, Phil Kornbluth of Airco Gases, and Ben Reinoelh of Air Products and Chemicals, Incorporated.

I am Chairman of the Helium Advisory Council, which is a national organization comprised of the leading companies involved in the extraction and refinement of helium and marketing of that to the private sector. The HAC operates as a sub-group of the Compressed Gas Association, an organization of more than 220 members who manufacture and distribute gases, cryogenic liquids and related products really throughout the world.

The HAC was created to serve as a forum for industry views. And, we would like to address the privatization issues and the debt forgiveness issues.

We appreciate being invited to this hearing. And, I have a statement that has several charts and descriptive materials attached with it.

Chairman LEHMAN. Without objection, we will include that in the record.

Mr. JOHNSON. Thank you. I will try to summarize my statement.

But, I want to start out by saying that we believe that the Helium Act was in the national interests and that the expenditures were well conceived and executed. Our main concerns relate to the fact that the world's richest supply of helium from the Hugoton field of natural gas is being produced and only about 50 percent of that helium is being recovered at this point.

The other thing that is important to realize is that around the first part of the next century, that production is about to fall off. And, there will not be enough production of helium from that field to supply the demand that is expected as the demand grows.

And, as you know, helium is used for many instances for which there is no substitute. And, that use is growing.

The other factor is that you don't produce helium just to produce helium. It is only produced when it is in conjunction with some

other economically viable produced gas, either carbon-dioxide or natural gas.

The HAC has considered the alternatives that we have been talking about here today and has several recommendations that I would like to outline. First, do not sell the helium reserve.

Because the federal reserve is about 33 billion cubic feet or more than nine times the current world demand for helium, a sale would devastate the current helium market and result in the loss of a lot of helium that could be claimed from the Hugoton and other fields.

Point Number 2. The Bureau of Mines should continue to store for the future the government-owned crude helium now in the Cliffside field. Maintenance of the federal helium reserve will encourage additional private industry investment to recover helium from natural gas now going to the market. And, additional helium conservation will insure our future supply of helium when these currently producing helium rich natural gas fields are depleted.

Point Number 3. The Bureau of Mines should continue to operate the pipeline and storage systems associated with the Cliffside field near Amarillo, Texas. The helium pipeline and storage system are an integral part of the private helium industry and are essential to more than 10 helium extraction/refining facilities which depend on these facilities for the transportation and storage of crude helium. Operations of the pipeline and storage system can be made financially viable, if they are not now, by establishing proper user fees.

Point Number 4. The U.S. Bureau of Mines should discontinue the sale of helium to the private helium market. Federal helium pricing policies in the past have frustrated investment in private helium recovery and refining facilities and are beginning to do so again.

The 1960 Helium Act provided that the federal helium activity be created to conserve helium and to supply federal and other helium needs. The private helium industry is prepared to meet all the demand for helium, including the demand for U.S. government agencies.

With the private helium industry now fully capable of satisfying the U.S. demand for helium, the HAC believes it is now appropriate for the Bureau of Mines to withdraw from helium production and marketing activities, to discontinue its competition with the private sector.

Point Number 5. The recently completed GAO report, *Meeting Federal Needs for Helium,* suggested that government agencies would pay a higher price for helium if they were supplied by the private industry instead of the U.S. Bureau of Mines. The HAC disagrees with this suggestion and contends that the efficiency of the private helium industry's helium transportation network would result in savings to the government agencies.

Point Number 6. The helium debt is an instrument necessary to value helium at a level which encourages conservation of this valuable and scarce commodity. If the Bureau of Mines is no longer engaged in the production and marketing of helium, the HAC believes that the debt could be forgiven.

If the Bureau of Mines continues to produce and market helium, some market pricing mechanism must be established before the helium debt is forgiven.

In conclusion, the Helium Advisory Council believes that there is a federal role in managing the helium reserve but that the Bureau of Mines should no longer participate in the production and sale of helium.

Former Representative John Rhodes of Arizona stated, as a part of the record when the Helium Act was debated in 1960, "The fact that helium is of vital importance to the national defense justifies a conservation program, but it does not justify an exclusive government operation of the whole helium industry. Private enterprise is just as capable of supplying helium to the government for defense needs as it is any other commodity. Private enterprise is equally capable of providing helium for the expanding non-military market. And, I see no reason why it should not do so. From what I am able to learn, there are adequate sources of helium available to supply both military and non-military requirements. If the same kind of thinking were used in the production of oil, the federal government would own the nation's entire oil industry."

We are looking forward to working with you and the Committee to address the concerns raised by this hearing. We have also met with Representative Sarpalius and Representative Inglis and others who have introduced legislation affecting the U.S. helium interests.

From those meetings, we believe that there is a desire to work together to find a solution to these problems and concerns. Compromise does not come easily, but we are optimistic that we can work with these proposals and that we can develop a solution that will satisfy these concerns.

Thank you.

[Prepared statement of Mr. Johnson and related documents follow:]

TESTIMONY

HELIUM ADVISORY COUNCIL
BEFORE THE
HOUSE NATURAL RESOURCES COMMITTEE
SUBCOMMITTEE ON
ENERGY AND MINERAL RESOURCES
MAY 20, 1993

Mr. Chairman, my name is Carl Johnson. I am Chairman of the Helium Advisory Council (HAC) which is a national organization comprised of many of the leading companies engaged in the helium business, including the production, extraction, refining, marketing and distribution sectors of the industry. HAC operates as a sub-group of the Compressed Gas Association, an organization of more than 220 member companies who manufacture, distribute, supply and transport gases, cryogenic liquids and related products around the world. Created to serve as a forum for industry views, HAC has worked to develop a constructive response to proposals to privatize aspects of the helium operations administered by Bureau of Mines.

Thank you for inviting us to speak at this hearing.

Helium is a unique material with properties that make it essential to a growing number of critical uses in medicine, high tech manufacturing, space exploration and research. For most of these uses, there is no substitute for helium. The U. S. consumption of helium is about 70% of the world consumption. (See charts 1 & 2.)

The U.S. produces about 90% of the world's helium supply. Helium is found in association with natural gas. However, not all natural gas contains helium. The principal helium sources at present are the Hugoton and Panhandle fields in the mid-continent region of the United States. (See chart 3.)

World demand for helium has grown at a compounded annual rate of more than 9% since 1972 and is expected to continue to grow for the foreseeable future. (See chart 4.) At the same time, the world's richest helium source, natural gas from the Hugoton and Panhandle fields, is being depleted so that in the very early part of the next century, the helium produced from these fields will no longer be able to keep up with the demand. (See chart 5.)

Recently, several proposals have been made to require the Federal Government to sell the Federal Helium Reserve and associated equipment as a part of deficit reduction. Legislation has been introduced in the House of Representatives requiring the sale of all federal helium assets. At the same time, others are advocating forgiveness of the debt created in establishing the Federal Helium Reserve.

The HAC has considered these alternatives and offers the following recommendations and comments:

1. Do not sell the Federal Helium Reserve. Because the Federal Helium Reserve is about 33 BCF, or more than 9 times the current annual world demand for helium, a sale of the Helium Reserve could devastate the current helium market. Proceeds from the sale of the Federal Helium Reserve will result in recovering only a fraction of the present market value of the helium. If the reserves are sold, extraction of helium from natural gas currently being produced will cease, and further investment in helium recovery will not happen. As a result, significant supplies of economically recoverable helium will be forever lost as the natural gas from these helium rich fields is produced.

2. The U.S. Bureau of Mines should continue to store for the future the government-owned crude helium now in the Cliffside Field. Maintenance of the Federal Helium Reserve will encourage additional private industry investment to recover helium from natural gas now going to market. Additional helium conservation will insure our future supply of helium when these currently producing helium-bearing natural gas sources are depleted.

3. The U.S. Bureau of Mines should continue to operate the pipeline and storage systems associated with the Cliffside Field near Amarillo, Texas. The helium pipeline and storage system are an integral part of the private helium industry and are essential to more than ten helium extraction/refining facilities which depend on these facilities for transportation and storage of crude helium. Operations of the pipeline and storage system can be made financially viable by establishing appropriate user fees.

4. The U.S. Bureau of Mines should discontinue the sale of helium into the private helium market. Federal helium pricing policies in the past have frustrated investment in private helium recovery/refining facilities and are doing so again. The 1960 Helium Act provided that the Federal Helium Activity be created to conserve helium and to supply federal and other helium needs. The private helium industry is prepared to meet all of the demand for helium, including the demand from the U.S. government agencies. With the private helium industry now fully capable of satisfying the U.S. demand for helium, the HAC believes it is now appropriate for the Bureau of Mines to withdraw from helium production and marketing activities to discontinue its competition with the private sector.

5. The recently completed GAO report, "Meeting Federal Needs for Helium," suggested that government agencies would pay a higher price for helium if they were supplied by private industry instead of the U.S. Bureau of Mines. The HAC disagrees with this suggestion and contends that the efficiency of the private helium industry's helium transportation network would result in savings to the government agencies.

6. The helium debt is an instrument necessary to value federal helium at a level which encourages conservation of this valuable and scarce commodity. If the Bureau of Mines is no longer engaged in production and marketing helium, the HAC believes the debt can be forgiven. If the Bureau of Mines continues producing and marketing helium, some market pricing mechanism must be established before the helium debt is forgiven.

In conclusion, the Helium Advisory Council believes that there is a federal role in managing the helium reserve, but that Bureau of Mines should no longer participate in the production and sale of helium. Former representative John Rhodes (R-AZ) said, as part of the official record when the Helium Act was debated in 1960:

> "The fact that helium is of vital importance to the national defense justifies a conservation program, but it does not justify an exclusive Government operation of the whole helium industry. Private enterprise is just as capable of supplying helium to the Government for defense needs as it is any other commodity. Private enterprise is equally capable of providing helium for the expanding non-military

> market, and I see no reason why it should not do so. From what I am able to learn, there are adequate sources of helium available to supply both military and non-military requirements. If the same kind of thinking were used in the production of oil, the Federal Government would own the nation's entire oil industry."

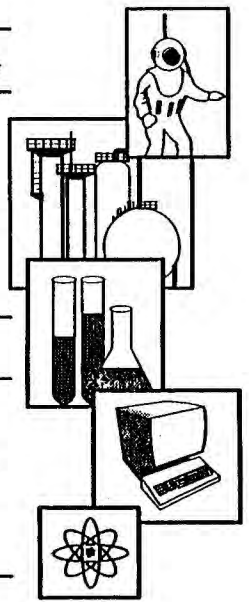
We look forward to working with you to assure a sound policy for managing this critical and scarce resource so that future generations will also have the necessary helium to satisfy their needs.

CHART 1

HELIUM APPLICATIONS

MAY 1993

MARKET USE	PROPERTIES
DIVING	
He/O_2 MIXTURE	INERTNESS / LOW DENSITY
INDUSTRIAL	
CHROMATOGRAPHY	INERTNESS
LIFTING GAS	LOW DENSITY
PRESSURIZING & PURGING	INERTNESS
LEAK DETECTION	SMALL MOLECULAR SIZE
PROTECTIVE ATMOSPHERE	INERTNESS
WELDING	INERTNESS
METALS REFINING	INERTNESS
RESEARCH	
SUPERCONDUCTIVITY	LOW BOILING POINT
HIGH TECHNOLOGY	
COMPUTERS	LOW BOILING POINT
FIBER OPTICS	INERTNESS
LASERS	THERMAL CONDUCTIVITY
MAGNETIC RESONANCE IMAGING	LOW BOILING POINT
MAGNETIC SEPARATION	LOW BOILING POINT
SPACE PROGRAM	INERTNESS
NUCLEAR	
HEAT TRANSFER MEDIUM	THERMAL CONDUCTIVITY
PRESSURE	INERTNESS



058067.005

CHART 2

1990 U.S. HELIUM MARKET MAY 1993

	VOLUME MMSCF	% OF TOTAL
RESEARCH & SUPERCONDUCTIVITY	626	29
MAGNETIC RESONANCE IMAGING	394	18
WELDING	306	14
CONTROLLED ATMOSPHERE	208	10
CHROMATOGRAPHY	75	3
LEAK DETECTION	64	3
LIFTING GAS	48	2
BREATHING ATMOSPHERE	43	2
U.S. FEDERAL GOVERNMENT	403	19
TOTAL U.S. MARKET	2167	
TOTAL WORLDWIDE	3103 MMSCF	
U.S. CONSUMPTION	70%	

05806.006

CHART 3

U. S. BUREAU OF MINES, PRIVATE INDUSTRY AND CONSERVATION PROGRAM HELIUM PLANTS.

MAY 1993

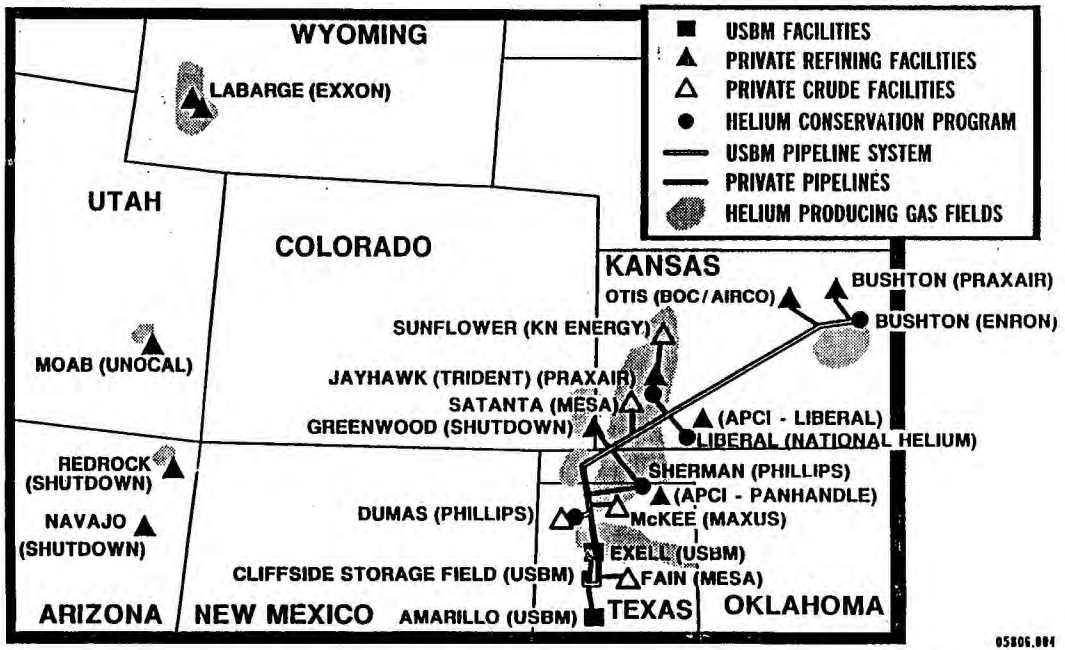
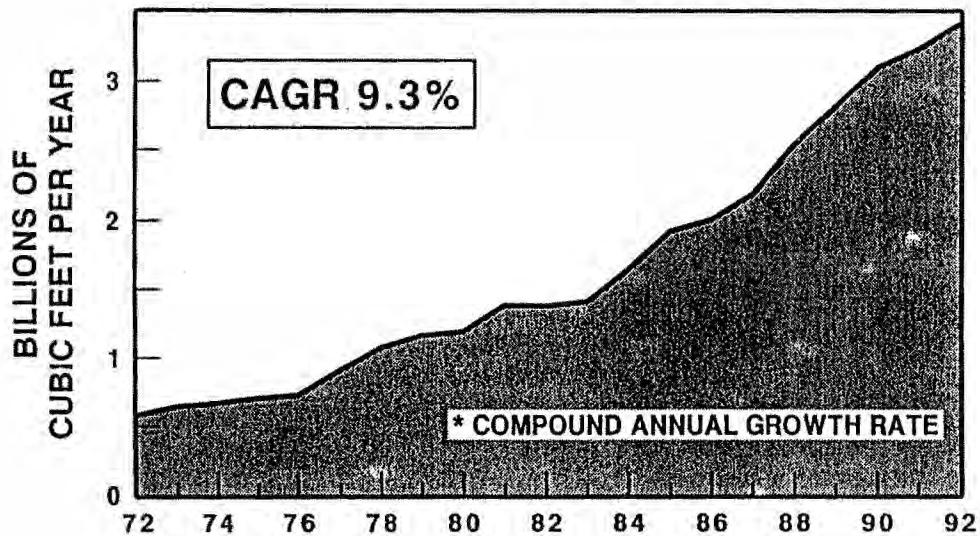


CHART 4

TOTAL WORLDWIDE HELIUM DEMAND
1972 - 1992

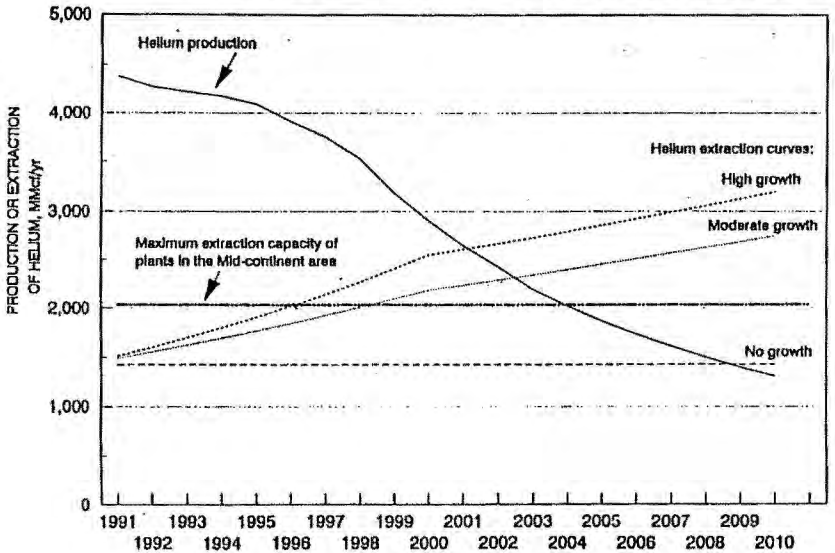


MAY 1993

05886.001

CHART 5

SUPPLY AND DEMAND FORECASTS FOR HELIUM FROM THE MID-CONTINENT AREA



SOURCE: U.S. BUREAU OF MINES INFORMATION CIRCULAR/1993; IC 9342

COMPRESSED GAS ASSOCIATION, INC.
1725 JEFFERSON DAVIS HWY. ■ ARLINGTON, VA 22202-4102 ■ (703)412-0900 ■ FAX (703)412-0128

November 21, 1988

HELIUM ADVISORY COUNCIL

POSITION STATEMENT

1. Optimum use of helium for the benefit of society requires continued participation of both government and private industry. Efficient routine supply to users should be the primary role of industry, while assurance of continued availability in an emergency should be the primary role of government.

2. Government owned crude helium should be provided to industry as required to satisfy emergency needs. The government's price of crude helium in an emergency situation should be high enough to provide industry with an incentive to extract helium from current natural gas production and to develop new helium sources while low enough to provide an economic reserve of crude helium. The Department of the Interior should develop a crude helium pricing mechanism which will generate prices consistent with these objectives.

3. The Bureau of Mines pipeline is a key component of the operations of the helium producer/marketers and is an essential part of the helium storage system. The government should ensure nondiscriminatory and equal access to the system.

4. The Bureau of Mines operational plans should hold in reserve a significant portion of its plant and transport equipment capacity to meet peak requirements, interruptions in normal supply sources, and other short term emergencies. Government pricing for refined helium and related services should be adjusted at least annually by an appropriate mechanism which is able to approximate free market value.

5. The Bureau of Mines should continue to monitor helium sources and continue as a "clearing house" of information.

6. The requirement that federal agencies purchase refined helium from the Secretary of Interior should be discontinued. After an appropriate transition period, private industry will be fully capable of satisfying all federal agency needs.

COMPRESSED GAS ASSOCIATION, INC.
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Helium Advisory Council Membership

Air Products and Chemicals, Inc.

AIRCO Gases

Exxon

Mesa, Inc.

MG Industries

Panhandle Eastern

Praxair, Inc.

Chairman LEHMAN. Thank you very much. I appreciate that very good testimony.

And, let me just say—I was just talking to Mr. Thomas here as well—after hearing the testimony this morning, I don't really buy, at least at this stage and based on what I have heard, the argument that there is an impact here on the federal debt.

I think GAO is right. We are just moving the peanut shells around.

But, I am concerned about the policy questions here, whether or not the federal government has any business at this point in time being in this business. And, I would just like to pursue some facets of that with you.

Could the federal government exit itself here without seriously disrupting the industry?

Mr. JOHNSON. We believe it could, provided that the helium reserve was not part of that disposal program.

Chairman LEHMAN. And, could you elaborate on that, what you mean by that?

Mr. JOHNSON. Well, perhaps one of the industry experts might be better suited to that.

Chairman LEHMAN. I take it what you mean is if we start dumping our helium out there, it will have an adverse impact. But, I would like to have that for the record.

Mr. JOHNSON. That's correct. Dennis, would you like to take that?

Mr. FAGERSTONE. Yes. I will address that question, Mr. Chairman.

We, at Mesa, have recently entered into the extraction of crude helium from the Hugoton Panhandle fields. And, part of what has driven our investment and entry into the business has been the expanded demand and improved prices.

And, as I say, we have just started within the last couple of months producing crude helium from our gas in the West Panhandle field. And, if the crude helium reserve were sold and prices for both refined and crude helium dropped as a result of that glut on the market, it would basically invalidate our investment and certainly discourage us from any further production or further participation in the business.

Chairman LEHMAN. In effect here, we have a Helium Program where we are keeping the market where it is by not letting in all of those resources out there.

Mr. JOHNSON. Mr. Chairman, Mr. Phil Kornbluth of Airco Gases would like to respond to that, too.

Chairman LEHMAN. Fine.

Mr. KORNBLUTH. I think we would like to draw a parallel to the sort of strategic reserve of oil, for instance. I mean, we do think it's an appropriate activity for the government to maintain a strategic reserve. In the case of helium, the pipeline and storage system is an integral part of the strategic reserve.

But, we don't think that production and marketing are appropriate activities for the Bureau of Mines.

Chairman LEHMAN. And, how would you—maybe somebody could answer this for me. How would you compare the costs for the production of helium in private versus public?

Mr. JOHNSON. Ben, do you want to answer that one?

Mr. REINOELH. Yes, sir.

Chairman LEHMAN. I mean, do you argue that in the private sector you can produce it cheaper?

Mr. REINOELH. Yes, we can. I think you've got to put in perspective the fact that we are producing liquid versus gas. And, there is an incremental higher cost to produce liquid.

But, overall, as an example, at a plant that is equivalent to the size of the Exell plant, we are producing 450 million cubic foot a year with 14 people as liquid at a cost that is less than $37.50. And, the Exell plant is producing approximately 300 to 400 million with many, many more people. I don't know the exact number, but it's probably somewhere around 60 to 70.

Mr. FRANCIS. I would like to add a little to that. There is an inherent difference between the Bureau of Mines' helium activity and the activities of all of the private industry.

We are primarily producers of other products. Helium is a very small part of our total operations. We produce oxygen, nitrogen, hydrogen and other gases.

And, the natural gas part of the industry that extracts helium produces propane, butane, ethylene and other valuable products out of their natural gas liquids extraction plants.

These operations, which are a hundred times larger than the helium operations that are associated with them, produce the technical advantages and operational advantages that make private production, extraction, purification, liquefaction, transport and distribution of helium by the private industry inherently less expensive than the Bureau of Mines' helium activity, because it is a one-product, one, little industry that is not associated with anything else that gives it any technical advantage.

We can do anything that the Bureau does. And, we can do it cheaper because of the fact that we get synergism from the other products that the industry also handles.

Thank you.

Chairman LEHMAN. Thank you. Let me yield briefly to Mr. Thomas, who is going to have to leave.

Mr. THOMAS. Thank you, Mr. Chairman. Let me say, first, I appreciate you having this hearing. It's a subject that we need to talk about.

And, I understand what you are saying about dumping all of this on the market and what it would do there. So, it seems to me that we need to find a way to handle it appropriately, if we can.

I guess I would some time like to talk to you a little more about the pipeline and so on. That may be a responsibility you all have to take on.

After all, you do that in the rest of the industry. And, there is no particular reason why you need to depend on that facility here as far as I know. Maybe there is.

In any event, thank you, Mr. Chairman. And, I would like to pursue it with you further.

Thank you.

Chairman LEHMAN. We will. And, I have a few more questions.

Did you want to respond to Mr. Thomas?

Mr. JOHNSON. I want to say that we would very much like to meet with you and talk with you about it, Mr. Thomas.

Mr. THOMAS. Fine.

Chairman LEHMAN. Mr. Johnson, why don't you also, for the record, describe the helium industry and how many companies are involved and what kind of revenues does it generate?

Mr. JOHNSON. I think that I would prefer someone else to answer that on the panel, since I am not——

Chairman LEHMAN. Sure. We just want the answer.

Mr. JOHNSON [continuing]. In the industry. Who would feel best to respond?

Do you want to respond to that, Ben?

Mr. REINOELH. The total helium industry is a world-wide industry. And, the majority of the product, about 95 percent, comes from the United States through the year 1992.

It's a small industry, as you compare it to industrial gases. It's approximately maybe 500 million world-wide. In the U.S., it would be two-thirds of that, roughly and approximately 300 million.

Chairman LEHMAN. Does the United States export helium?

Mr. REINOELH. The United States has been the source of all the world's helium until very recently. And, through 1992, the growth rate has been a little over nine percent and it has just about all come from the United States except for a small plant in Poland.

Chairman LEHMAN. Is helium cheaper here than in foreign countries?

Mr. REINOELH. Helium in foreign countries is higher priced simply because there is a distribution cost to get it there.

Chairman LEHMAN. Sure.

Mr. REINOELH. It is being moved as liquid. It is approximately 40 percent higher.

Chairman LEHMAN. Now, NASA is a major user of helium. And, there has been some indication that periodically NASA needs vast amounts of the gas and there is a question as to whether or not that would be readily available in the private sector.

How would you address that?

Mr. REINOELH. The statement was made earlier, and the comparison was made, about cost to NASA. The question, the first part, is that we are comparing gas to liquid. The Bureau has gas. We move liquid.

There is no question in my mind that private industry can handle NASA more efficiently at the Cape than the Bureau. And, let me just cite why.

It's about 3,780 miles down to the Cape. Take it by rail, the approximate cost is just slightly under $6 thousand per shipment.

That would equate to about $21 a thousand to move the gas that you are pricing at the Bureau at $55, about $20 to move it down there. That would give you about $75.

Now, if the wholesale price for liquid, as they have quoted, is $45 for the private sector, moving it as liquid to Cape Kennedy would cost about $6. And, it could be moved much more efficiently.

As far as the different investments, a delta investment that was also stated, I just don't believe that that investment would be needed. So, I think we can serve any government requirement as efficiently and at a competitive price——

Chairman LEHMAN. And, in the volume necessary?
Mr. REINOELH. Pardon me, sir?
Chairman LEHMAN. And, in the volume necessary?
Mr. REINOELH. And, in the volume necessary.
Chairman LEHMAN. Okay. Then, to get back to——
Mr. REINOELH. And, as reliable, too.
Chairman LEHMAN. Okay. I asked earlier the differential on transportation costs, because I know you say that you can do it cheaper. You heard the response.
Mr. REINOELH. It's about $14 a thousand difference, I think, roughly.
Chairman LEHMAN. And, that includes the cost that you have to liquify it?
Mr. REINOELH. Well, I assume, in the $45 the cost would be in for liquefaction, yes, sir.
Chairman LEHMAN. If—how much of the helium do you think we could sell at today's prices?
Mr. JOHNSON. Of the reserve?
Chairman LEHMAN. Right.
Mr. KORNBLUTH. Our feeling is that at most perhaps one BCF or at most two BCF out of the 32 or 33 BCF in storage. That represents less than five percent of the total reserve.
You know, the problem in selling the reserve is that all of the companies currently involved in helium refining have long-term contractually guaranteed sources of supply. So, we don't need it.
So, if we were to buy it or if any of the companies sitting here were to buy it, we would just be storing it for future—you know, long-term in the future needs. We really have no economic reason to do that.
The only folks who might buy it would be potential new entrants to the business. I might want to point out that those folks tend to be foreign companies.
So, we would end up selling the national reserve of helium to the Japanese or somebody.
Mr. JOHNSON. Mr. Chairman, Gary Caesar, if I may, I would ask if he could respond to that, too.
Chairman LEHMAN. Certainly. Would you state your name for the record so we can get it here and your title?
Mr. CAESAR. Gary Caesar, with Prax Air, Incorporated. Mr. Chairman, our main concern with the potential sale of the helium reserves is one more of conservation than anything else.
One of the attachments to the testimony that we have submitted is a chart which depicts the decline of available helium from what we call the mid-continent part of the United States where the Bureau of Mines' operation and pipeline system is located and where the 10 current extraction facilities are today.
With the potential sale of the Bureau's or the United States' helium reserves, what we envision is the displacement of those reserves and the use of those reserves to supply current market demand. While in the meantime, natural gas production will continue and the gas reserves of the fields in the mid-continent will deplete such that around the year 2000 or 2005 there may be the potential that when we have depleted the theoretical recoverable reserves from the Cliffside storage field operated by the Bureau of Mines

that there will be insufficient helium from the balance of the mid-continent gas supplies to supply the entire industry including the United States' demand.

It is our position that we recommend the conservation of helium by stopping the current depletion of the Cliffside reserves in supplying federal requirements and maintain them for future generations' use beyond the year 2000 which, in effect, will also then allow us to build more extraction facilities to recover the helium which currently is not being extracted from natural gas which is flowing out of the mid-continent reserve. The chart depicts that nearly 50 percent of all the natural gas produced in that area of the country is not having its helium extracted.

In today's situation where the Bureau of Mines provides a viable economic alternative to supply, we have a very difficult time investing new capital in extraction of that gas. And, in effect, what we envision is the loss of that helium for future generations.

So, it's our contention and our recommendation that while the reserves have value today, they will be best served for the public in the future and should be held and maintained at some fashion by the U.S. government.

Mr. FRANCIS. I would like to add to that a little bit, if I could.

Chairman LEHMAN. Certainly. Proceed.

Mr. FRANCIS. Of all the helium ever discovered in the United States, all of the economically extractable helium, it's above three-tenths of a percent, two-thirds of it is gone. It's gone because the helium was associated with fuel gas and the fuel gas was produced for fuel use.

Out of that, 80 percent of that helium that was contained was lost to no good purpose. Eleven percent has been used by human beings for good and sufficient reasons, producing goods and services that people enjoy. The other nine percent represents the amount that is in storage today.

The whole point here is that helium being a byproduct, you cannot control its future use by simply allowing it to be used as people need it, because the helium is going to be gone because people need something else, which is the fuel gas. And, the strategy for a reasonable society is to attempt to hold as much helium in the ground in connection with reserves that do not need to be produced for any other purpose and use for current needs those gases that are going to be produced for their fuel content. And, that's exactly what we are asking for.

The helium that is in storage in Cliffside does not have to be used for anything but its helium content. It is not associated with fuel gas that is going to be produced to meet fuel users' needs.

Mr. KORNBLUTH. Just one other comment, if I may, briefly clarify a statement I made previously.

Chairman LEHMAN. Sure.

Mr. KORNBLUTH. When I stated that one or perhaps two BCF of the reserve could be sold, I specifically was referring to sold at market—at or near market prices. The entire reserve could be sold, clearly, but it would almost have to be given away to find a home for it because it would have to be stored in inventory for such a long period of time that our estimate is that perhaps five cents on the dollar could be realized, maybe 10 cents at most.

Chairman LEHMAN. Okay. Let me ask you. What is the market value at today's prices of that helium that the federal government has in Texas?

Mr. KORNBLUTH. Just to peg a round number on it, you might say something like $25 per MCF, perhaps $30 on the high side. But, that's a—the point was made earlier that there is no spot market for crude helium.

This is crude helium, by the way, that I am referring to. The helium that the government has is crude helium. That's the relevant pricing.

Chairman LEHMAN. And, that was at spot, about $600 million?

Mr. KORNBLUTH. I think at market, what is $25 times 30 BCF? Yeah, $750 million. There is no way the government could realize a number resembling that by selling it or dumping it essentially. It would be, you know, 5 or 10 cents on the dollar.

Chairman LEHMAN. But, you could let it out on to the market gradually.

Mr. KORNBLUTH. The only possible way to let it to the market would be very gradually.

Chairman LEHMAN. Go ahead, Mr. Reinoelh.

Mr. REINOELH. Mr. Chairman, I just want to make one other point. There is certainly a question of jobs here.

And, since 1991, I've made some calculations of what private industry has done. Basically, we have put over $200 million in this business of refining and recovering helium.

We have added approximately 104 jobs. That does not include the distribution jobs. The product is moved from that area of the country where the demand is very light to the east coast, the west coast or around the world with sleeper teams. That is probably another 50 people.

So, we have added jobs. And, we have added investment. And, I understand that there are jobs at stake in Amarillo and would sympathize with that position.

But, we really believe that the conservation of helium now is important; and, secondly, that private industry is ready to step in and put more investment as the growth of helium continues. And, I think it will.

Chairman LEHMAN. I want to thank you very much. I appreciate your testimony.

It has been excellent. And, I look forward to working with you over the next few weeks as we move forward here.

Thank you. And, the hearing is adjourned.

[The hearing is adjourned at 11:43 a.m., Thursday, May 20, 1993.]

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