REPORT OF

THE

STATE AUDITOR

DEPARTMENT OF LABOR AND EMPLOYMENT
DIVISION OF LABOR
OIL INSPECTION & PUBLIC SAFETY

PERFORMANCE AUDIT
September 1999

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September 9, 1999

Members of the Legislative Audit Committee:

This report contains the results of the performance audit of the Division of Labor, Oil Inspection and Public Safety Sections. This audit was conducted pursuant to Section 2-3-103, C.R.S., which authorizes the State Auditor to conduct audits of all departments, institutions, and agencies of state government.

This report presents our findings, conclusions, and recommendations, and the responses of the Division of Labor, Oil Inspection and Public Safety Sections.

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OFFICE OF THE STATE AUDITOR **REPORT SUMMARY**

J. DAVID BARBA, CPA
State Auditor

Oil Inspection and Public Safety Sections
Division of Labor
Department of Labor and Employment
August 1999

Authority, Purpose, and Scope

This performance audit of the Oil Inspection Section (OIS) and the Public Safety Section, Division of Labor, Department of Labor and Employment, was conducted under the authority of Section 2-3-103, C.R.S., which authorizes the Office of the State Auditor to conduct audits of all departments, institutions, and agencies of state government. We conducted this audit according to generally accepted auditing standards. We gathered the information in this report through interviews, document review, and analysis of data. Audit work was performed between December 1998 and May 1999. The purpose of this audit was to evaluate the Oil and Public Safety Sections' inspection activities and follow-up of prior audit recommendations.

This report contains findings and recommendations for improving the operations of the Oil and Public Safety Sections. We acknowledge the efforts and assistance extended by the staff of the Department of Labor and Employment, Division of Labor, Oil Inspection Section, Public Safety Section, and industry representatives. The following summary provides highlights of the comments, recommendations, and responses contained in the report.

Oil Inspection Section (OIS)

OIS regulates and inspects petroleum products and the equipment, such as gas pumps and petroleum storage tanks, used to distribute and store those products. The section also regulates the remediation of contamination caused by leaking petroleum storage tanks and processes the applications for reimbursement of cleanup costs to eligible applicants from the State Tank Fund.

Privatizing and Reallocating Inspection Resources Could Increase Spending Flexibility and Savings

Most petroleum leaks are found when underground storage tanks are closed or upgraded; and most leaks are caused by poor tank installations. Statutes require every underground storage tank installation and upgrade to be inspected. However OIS inspected only 58 percent of the upgrades and 95 percent of the installations in Fiscal Year 1999. Some petroleum release investigations and cleanups can be paid with 90 percent federal funds and a 10 percent state match. However, OIS risks a loss of federal funds because Colorado is one of nine states which spent 67 percent or less of funds awarded. Also, OIS has not acted on federally funded petroleum release investigations and clean ups according to its established priorities.

For more information on this report, contact the Office of the State Auditor at (303) 866-2051.

We believe that OIS could fulfill its regulatory responsibilities and reduce its risk of losing unspent federal funds by inspecting every UST installation and upgrade as required by statute or recommending an amendment and by addressing the 117 sites currently eligible for 90 percent federal funding in a timely manner and by established priorities.

Department of Labor and Employment, Division of Labor Response:

Disagree. See responses to Recommendations Nos. 1 and 2. Carry over grant funds have been spent and/or encumbered.

When federal underground storage tank regulations were implemented, private insurance was EPA's choice for most tank owners to be able to demonstrate financial responsibility. Since most insurance did not provide coverage for "historical" environmental damages, EPA allowed states to develop state funds. As of January 1, 1999, operating underground petroleum storage tanks (UST) should have been replaced or upgraded and their owners eligible to be reimbursed for most of the costs by the State Fund. Rising cleanup costs and claims and fund revenues have contributed to TABOR-related displacement of General Fund spending and have complicated revenue projections. Although private insurance is available now for tanks that are in compliance, owners of those tanks have unending access to the State Fund. This is because they are not required to get private methods of financial responsibility assurance for those tanks and the State Fund has no sunset dates. Requiring private methods of assurance to demonstrate financial responsibility for tanks already in compliance and sunset dates for access to State Funds for new and upgraded tanks is a growing national option.

We recommend that DLE/DOL should ensure that OIS works with stakeholders to privatize pollution risk liability as soon as practicable by encouraging owners/operators of new and upgraded tanks to obtain private insurance; exploring the possibilities of a subsidy during the transition; and consider proposing a sunset date for access to the State Fund for new and upgraded tanks, to the General Assembly.

Department of Labor and Employment, Division of Labor Response:

Disagree. See response to Recommendation No. 5. It is inappropriate for the Department to propose a sunset date for the Colorado Petroleum Storage Tank Fund since the legislature eliminated the sunset provision just two years ago. This report provides no documentation that cleanup costs are rising in Colorado and the report does not identify a single problem in how the Colorado Fund is administered.

EPA reports that UST remediation and inspections will be a declining portion of future inspector workload as tanks are brought into compliance. Until then, OIS continues to look for ways to free up inspection resources in order to allocate more resources to other responsibilities including UST leakage detection, remediation, and inspections. Our 1996 audit found that routine gas station inspection resources and costs could be reduced by 59 percent annually by inspecting lower-risk pumps (89 percent) every three years and higher-risk pumps (11 percent) annually, thus changing the "one size fits all" inspection frequencies and policies which remain in force.

We believe that OIS could reallocate its resources to petroleum storage tank remediation and inspection, and reduce the costs of its 32,546 (FY98) gasoline pump inspections about 59 percent by inspecting lower-risk gas station pumps every three years and higher-risk gas pumps annually. OIS could turn the cost reduction into a savings by using management reports and information to plan for future elimination of excess FTE and funding used to monitor tank activities.

Department of Labor and Employment, Division of Labor Response:

Disagree. See response to Recommendation No. 6. The Department is committed to restructuring its inspection strategies but we do not agree with the suggestion of once every three years. This sort of approach could have severe consequences for consumers of gasoline and other petroleum products.

Public Safety Section

The Public Safety Section regulates boilers and pressure vessels through the Boiler Inspection Section (BIS); sets standards for the use, storage, transportation, and sale of explosives through the Explosives Section; verifies insurance coverage and inspection of carnivals and amusement parks; and adopts codes and establishes minimum standards for the construction of all public school facilities.

Changing Certification, Permitting, and Inspection Requirements Could Increase Public Safety and Decrease Costs and Charges

The Boiler Inspection Section (BIS) requires regular annual inspection of all 38,000 state-regulated boilers regardless of their relative safety risks. About 30,426 (80 percent) of these boilers are classified as being active and the rest, 7,497 (20 percent), are out of service or scrapped. Inspections are performed by either state inspectors employed by BIS (49 percent of the boilers) or special inspectors (company inspectors) employed by insurance companies (51 percent of the boilers). We recommended a cost-saving risk-based inspection program in 1996, which has not been implemented. In addition to our recommendation, the National Board of Boiler and Pressure Vessel Inspectors recommends that higher-risk boilers (27 percent) continue to be inspected annually while lower-risk boilers (73 percent) be inspected biennially. This could reduce annual inspection costs by about $150,000. BIS also has no policy for ensuring that boilers are safely taken out of service. It continues policies allowing some owners to be subsidized. We found that information reported to the Joint Budget Committee (JBC) can be confusing and inaccurate.

We believe that BIS should lower its costs and improve safety and customer service by proposing the National Board's recommended inspection frequencies to the General Assembly, developing procedures and fees for the safe disconnection of boilers, and eliminating subsidies by splitting inspection and certificate costs. BIS should also improve information it gives to the JBC.

Department of Labor and Employment, Division of Labor Response:

The Division will propose legislation to allow biennial inspections (see response to Recommendation No. 8), a multiple rate structure (see response to Recommendation No. 12), and regulation of disconnected boilers (see response to Recommendation No. 11). The Division will implement Recommendation No. 13 in the Boiler workload data in the Fiscal Year 2000-2001 Budget Request.

The Explosives Section (Explosives) requires all explosives permits to be renewed annually but retests permit holders every three years and lacks permitting requirements for explosives storage magazines.

We believe that the Explosives Section could reduce its permit issuance costs and increase customer convenience and public safety by renewing permits every three years and by considering permitting requirements for permanent and portable storage magazines.

Department of Labor and Employment, Division of Labor Response:

Public Safety agrees that the Explosives Section should renew explosive permits every three years and will work toward the development of permitting requirements for permanent and portable storage magazines. (See Audit Recommendation Nos. 14 and 15).

Follow-Up on 1996 Oil and Boiler Inspections Performance Audit

A summary of our evaluation of actions taken in implementing the 1996 audit recommendations is shown in the following chart:

1996 DLE/DOL Oil and Boiler Inspection Sections Performance Audit	Total
Implemented	1
Partially Implemented	3
Not Implemented	10
Disagreed	3
No Longer Applicable	0
Total	**17**

We reemphasize in this report that our 1996 recommendations still need to be implemented.

RECOMMENDATION LOCATOR
Department Addressed - DLE/DOL

Rec. No.	Page No.	Recommendation Summary	Agency Response	Implementation Date
1	21	DLE/DOL should control and limit environmental petroleum leaks by: a. Developing methods to ensure that the Oil Inspection Section fulfills its statutory responsibility to make an on-site inspection of every new installation and of every upgrade of an existing tank prior to the operational start-up of such tanks. Alternately OIS can develop and recommend to the General Assembly an amendment to Section 8-20.5-204(4)C.R.S. b. Properly documenting the occurrence of such inspections.	Implemented	6/1/99
2	26	DLE/DOL should ensure that OIS addresses eligible LUST Fund sites in a timely manner by using LUST funds to pay for outsourcing the investigation and cleanup of LUST sites in an effort to retain federal funds currently allocated to suspected petroleum release investigation and cleanup.	Implemented	8/1/99
3	28	DLE/DOL should ensure that the Oil Inspection Section: a. Addresses LUST Fund site investigations by the contamination risk potential and priorities it has assigned. b. Reprioritizes sites as necessary as information is received and based on latest risk assessment. c. Identifies and addresses higher-priority sites in a more timely manner.	Implemented	8/15/99

RECOMMENDATION LOCATOR
Department Addressed - DLE/DOL

Rec. No.	Page No.	Recommendation Summary	Agency Response	Implementation Date
4	31	DLE/DOL should: a. Ensure that the Oil Inspection Section actively pursues and documents cost-recovery actions. b. Assess a responsible party's ability to repay in all cases where a solvent party responsible for petroleum contamination is identified and OIS has expended LUST Funds to investigate and/or clean up a site.	Agree	11/1/99
5	38	DLE/DOL should ensure that the Oil Inspection Section works with the Petroleum Storage Tank Committee, the petroleum and insurance industries, and other stakeholders to consider privatizing pollution risk liability for new and upgraded tanks and remediated sites as soon as practicable by: a. Developing and proposing to the General Assembly a release eligibility sunset date for the State Fund to exclude claims from owners/operators for new and upgraded tanks. b. Encouraging those owner/operators to obtain private forms of financial responsibility assurance. This includes exploring the possibility of some level of State Fund subsidy for private insurance costs during the transition period from public to private operation.	Disagree	--

RECOMMENDATION LOCATOR
Department Addressed - DLE/DOL

Rec. No.	Page No.	Recommendation Summary	Agency Response	Implementation Date
6	44	DLE/DOL should: a. Reduce inspection frequency and costs by implementing a risk-based three-year/annual inspection program. b. Use management reports and information to plan for future elimination of excess FTE and funding used to monitor tank activities.	Disagree	--
7	46	DLE/DOL should ensure that the accuracy and accessibility of OIS's recordkeeping system is sufficient to identify its regulatory responsibilities and their fulfillment.	Agree	7/1/00
8	56	DLE/DOL should: a. Propose to the General Assembly amendment of Section 9-4-103(4), C.R.S., allowing BIS to adopt the National Board of Boiler and Pressure Vessel Inspectors' recommendations to perform biennial certificate inspections on large utility steam boilers, domestic-type boilers, and hot water heating/supply boilers which do not require internal inspections. b. Propose to the General Assembly amendment of Section 9-4-109(1)(a), C.R.S., allowing an $80 maximum fee for biennial certificate inspections while maintaining the current $40 maximum fee for annual certificate inspections.	Disagree	--

RECOMMENDATION LOCATOR
Department Addressed - DLE/DOL

Rec. No.	Page No.	Recommendation Summary	Agency Response	Implementation Date
9	59	The Department of Labor and Employment Executive Director and Division of Labor management should require that BIS: a. Concentrate its resources on activities required by statute by inspecting only active boilers, (those which are being used or proposed to be used). b. Refrain from reporting these inspections as if they are part of its required workload.	Disagree	--
10	63	DLE/DOL should reduce the possibility of increasing future certificate inspection fees and the cost of providing inspections by: a. Continuing to rely on boiler owners to correct boiler deficiencies and report those corrections to BIS. b. Enforcing its policy regarding deficiency correction time limits, including the provision that allows inspectors to red-tag deficient boilers that are not corrected within the specified time limits. c. Proposing to the General Assembly an amendment to Section 9-4-109, C.R.S., allowing BIS to develop and charge a fee to offset the cost of reinspecting boilers that have been red-tagged.	Agree	10/1/00

RECOMMENDATION LOCATOR
Department Addressed - DLE/DOL

Rec. No.	Page No.	Recommendation Summary	Agency Response	Implementation Date
11	65	The Department of Labor and Employment Executive Director and Division of Labor management should improve boiler safety, inspection efficiency, and resource allocation by: a. Developing and implementing rules and regulations addressing the proper procedures for disconnecting a boiler. b. Requiring owners to provide written notification to BIS of their intention to disconnect a boiler. c. Ensuring that boiler inspectors verify and document a safe disconnection before the boiler is classified "out of service" (O) and no longer eligible for routine certificate inspection. d. Proposing to the General Assembly an amendment to Section 9-4-109, C.R.S., to provide for a disconnection inspection fee.	Agree	10/1/00
12	68	DLE/DOL should come into compliance with industry standards by proposing a statute change to the General Assembly allowing BIS to split the fee it currently charges into two parts — one for the issuance of a certificate of inspection, and one for the actual inspection.	Disagree	--

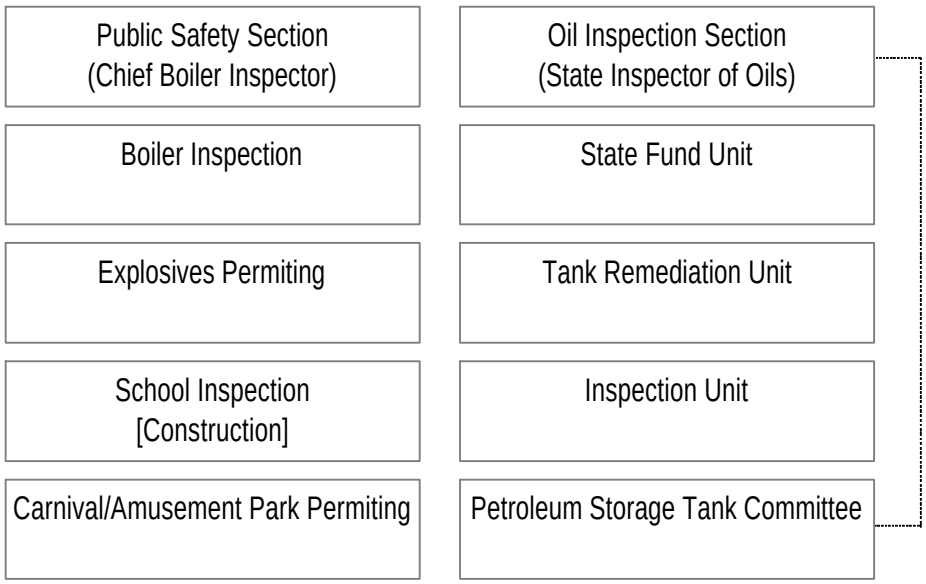
RECOMMENDATION LOCATOR
Department Addressed - DLE/DOL

Rec. No.	Page No.	Recommendation Summary	Agency Response	Implementation Date
13	71	DLE/DOL should ensure that BIS performance indicators reported in budget requests are clear, consistent, and accurate including: a. Reporting routine annual inspection requirements only in terms of active boilers requiring annual or biennial certificate inspections by state and insurance inspectors. b. Reporting net annual growth in active boilers requiring certificate inspections separately from new installations and new serial numbers. c. Using terms such as "deficiency" consistently and reporting the number/proportion of deficiencies corrected by owners and the number of deficient boilers resulting in "red tags" and requiring reinspection.	Disagree	--
14	75	DLE/DOL should propose statute changes to the General Assembly to decrease Public Safety Explosives Section administrative costs and increase customer convenience by: a. Authorizing a three-year explosives permit. b. Maintaining the current annualized $25 fee with a $75 three-year fee. c. Staggering inspections and issuance of permits to maintain a level annual workload.	Partially Agree	7/31/00
15	77	DLE/DOL should: a. Consider the costs and benefits of securing and controlling stored explosives through the regulating and permitting of permanent and portable magazines. b. Propose statutory amendments to the General Assembly as necessary.	Agree	7/1/00

Description of the Oil Inspection Section and the Public Safety Section

The Oil Inspection Section and the Public Safety Section are located within the Colorado Department of Labor and Employment (DLE), Division of Labor (DOL), and made up of units shown in the chart:

Oil Inspection Section



The Oil Inspection Section (OIS) regulates petroleum products and the equipment used to distribute and store those products. Additionally, the section regulates the remediation of contamination caused by leaking petroleum storage tanks and processes the applications for reimbursement of cleanup costs to eligible applicants from the State Tank Fund. The Colorado Department of Labor and Employment State Fund received a national award from the Association of State Fund Administrators in conjunction with the Environmental Protection Agency for "the Best Fund For Getting the Job Done."

OIS is authorized by and enforces Sections 8-20-101 through 8-20.5-407, C.R.S. In Fiscal Year 1998, OIS received an appropriation of $1.8 million in cash funds and

$471,000 in federal funds with authorized FTE of 45.3. OIS is directed by the State Inspector of Oils and comprises three sections.

Inspection UnitS14 FTE

Field inspectors in the inspection unit verify that facilities, including petroleum storage tanks, are in regulatory compliance, ensure fuel pumps are calibrated to dispense fuel accurately, and respond to emergency situations such as petroleum releases.

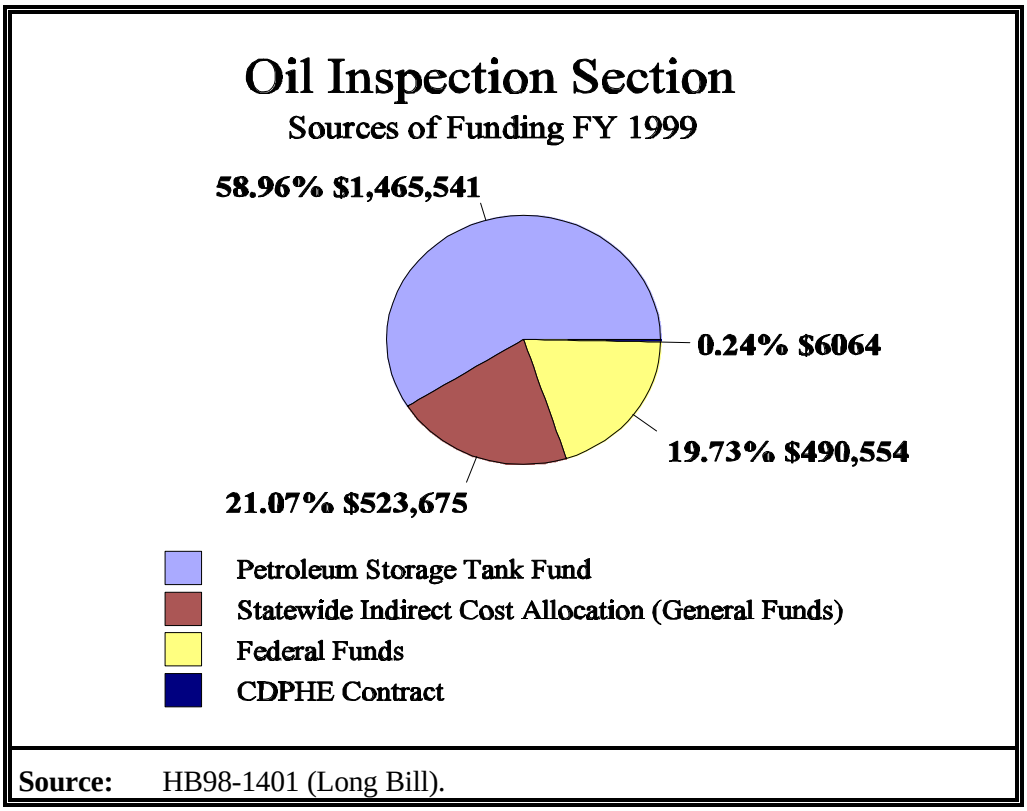
State Fund UnitS12 FTE

The state fund unit administers the petroleum storage tank fund, which reimburses eligible tank owners and operators, property owners, and lenders for allowable costs that arise directly from the performance of necessary corrective action to clean up petroleum contamination from underground and aboveground storage tanks.

Tank Remediation UnitS16 FTE

The remediation unit oversees the investigation and cleanup of environmental contamination caused by releases from petroleum storage tanks.

The following chart shows the sources of funding for the section:



Source: HB98-1401 (Long Bill).

OIS has set forth the following goals:

- Protect public health, safety, and the environment from contamination caused by leaking petroleum and other regulated storage tanks.
- Provide effective administration of the petroleum storage tank fund.
- Protect consumers, retailers, distributors, and refiners of petroleum products in areas of product quality, measurement, and safety.
- Execute an effective administration of programs to provide a consistently high level of customer service to all customers.

Public Safety Section

The Public Safety Section regulates boilers and pressure vessels; adopts codes and establishes minimum standards for the construction of all public school facilities; sets standards for the use, storage, transportation, and sale of explosives; and verifies insurance coverage and inspection of carnivals and amusement parks. The Public Safety Section received an appropriation of $644,000 in cash funds with authorized FTE of 12.6 in Fiscal Year 1998.

We focused on the Boiler Inspection Section and the Explosives Section because they perform routine (regularly scheduled) field inspections. The Boiler Inspection Section is authorized by and enforces Sections 9-4-101 through 9-4-118, C.R.S. The Explosives Section is authorized by and enforces Sections 9-6-101 through 9-6-103 and Sections 9-7-101 through 9-7-112, C.R.S. The Boiler Inspection and Explosives Sections are directed by the Chief Boiler Inspector.

Boiler Inspection Section—10.5 FTE

The Boiler Inspection Section (BIS) adopts codes and standards, formulates regulations, and oversees annual field inspections of and issues permits for boilers and pressure vessels in public, commercial, and multi-unit residential buildings in the State.

The American Society of Mechanical Engineers (ASME) boiler code was established in 1914. The code governs the fabrication, both engineering and materials, of boilers and pressure vessels and is recognized in over 99 countries.

The ASME boiler code's fundamental tenet is the independent third-party inspector, governed by the National Board of Boiler and Pressure Vessel Inspectors (the National Board). The National Board sets the qualification standards for boiler and pressure vessel inspectors. Chief boiler inspectors or other jurisdictional authorities who administer the boiler and pressure vessel safety laws in the United States and Canada are members of the National Board. BIS has formulated rules and regulations based upon the ASME code and the National Board code. Both the ASME code and the National Board code have been adopted in 47 states.

Explosives Section—.7 FTE

The Explosives Section sets and enforces standards for the manufacture, use, storage, transportation, and sale of explosives and issues about 900 initial and renewal explosive permits each year. It develops, administers, and grades all explosives examinations, ensuring capable and competent applicants meet and understand safety and statute requirements. Explosives Section staff also verify insurance coverage and inspection of carnivals and amusement parks, and process and issue about 30 amusement parks, carnivals, and bungee-jumping permits each year.

The Boiler and Explosives Sections have set forth the following goals:

- Perform an increased number of inspections on an annual basis.

- Give the agency the ability to better serve its customers, and thereby guarantee closer statutory compliance with the Boiler Inspection Automated System (BIAS).

- Reinforce the existing relationship and level of communications between the BIS and those insurance companies that cover boiler and pressure vessel losses and with the Boiler and Pressure Vessel Task Force.

- Implement the agreed-to recommendations of the State Auditor in the Performance Audits heard by the Legislative Audit Committee in Fiscal Year 1997.

- Provide procedures that allow the permitting of explosives. Establish rules for the manufacture, sale, storage, transport, and use of explosives materials or blasting agents in the interest of protecting the lives, health, and safety of employees and the general public, as well as protecting property.

Oil Inspection Section

Chapter 1

Background

An underground storage tank system (UST) is a tank used to contain petroleum or other regulated substances and any underground piping connected to the tank that has at least 10 percent of its combined volume underground.

The greatest potential hazard from a leaking UST is that the release of petroleum or other hazardous substance can seep into the soil and contaminate groundwater. A leaking UST can present other health and environmental risks, including the potential for fire and explosion.

Until the mid-1980s, most USTs were made of bare steel, which is likely to corrode over time and allow UST contents to leak into the environment. Faulty installation or inadequate operating and maintenance procedures can also cause USTs to release their contents into the environment. In 1984 Congress banned the installation of unprotected steel tanks and piping beginning in 1985.

Growing concerns about land and groundwater contamination resulting from leaking petroleum underground storage tanks (USTs) caused Congress to pass federal legislation requiring the United States Environmental Protection Agency (EPA) to develop a regulation program addressing the installation, use, and management of USTs. These regulations, adopted in 1984, required corrective action of petroleum releases from USTs, but did not address funding for environmental damage caused by the USTs prior to the enactment of this act. Two years later Congress attempted to eliminate future unfunded environmental damages resulting from USTs by mandating UST financial responsibility requirements. Owners and operators of USTs were required to demonstrate evidence of financial responsibility for the cost of corrective action and the compensation of third parties for bodily injury and property damage caused by releases arising from the operation of USTs. In general, tank owners are required to maintain $1 million (for 1-100 tanks/$2 million for 101 or more tanks) pollution liability coverage on each UST site. Most of these sites had been operating for years, and many of the tanks were constructed of unprotected bare steel and owned by small businesses.

The regulations EPA drafted in 1988 were designed to make underground storage tanks less prone to leaks and to ensure that leaks are detected more quickly. For example, these regulations called for the replacement of older single-wall tanks with newer double-wall tanks or a retrofit of existing tanks to make a release of product less likely. Additionally, more stringent leak detection methods must be used by tank owners/operators.

All regulated tanks installed before December 22, 1988, were to be upgraded, replaced, or properly closed by December 22, 1998, and only tanks meeting the new regulations could be installed after December 22, 1988. Upgrade means that tanks must have spill, overfill, and corrosion protection.

Colorado's petroleum storage tank program was established to comply with federal regulations intended to protect public health and the environment. The program enforces regulations governing the installation and safe operation of aboveground and underground petroleum storage tank facilities, as well as the remediation of petroleum contamination when discovered. The petroleum storage tank fund (State Fund) was established in 1989 in response to federal and state public health and safety concerns posed by environmental hazards from leaking petroleum storage tanks and was originally housed within the Department of Public Health. Pursuant to H.B. 95-1183, responsibility for staff and budget, and cleanup and mitigation of environmental hazards resulting from fuel storage tank leakage were transferred to DLE/OIS on July 1, 1995.

OIS regulates and inspects petroleum products and the equipment, such as gas pumps and petroleum storage tanks, used to distribute and store those products. The section also regulates the remediation of contamination caused by leaking petroleum storage tanks and processes the applications for reimbursement of cleanup costs to eligible applicants from the State Tank Fund.

Findings

We reviewed OIS and compared its policies and procedures with other states' programs, current industry trends, and statutory standards. We found that OIS should:

- Inspect all underground tank installations and upgrades or recommend statutory change.
- Spend federal funds to clean up eligible contaminated sites faster.
- Prioritize Leaking Underground Storage Tank (LUST) Fund-eligible sites.

- Pursue required cost recovery.
- Consider privatizing pollution risk liability for new and upgraded petroleum storage tanks.
- Improve allocation of inspection resources.
- Collect better inspection data that is still needed to improve management of OIS operations.

All Underground Tank Installations and Upgrades Must Be Inspected

New underground tank installations and upgrades must be inspected because of the attendant groundwater and soil risks involved and future problems that can be averted when tanks are properly installed and upgraded. According to the EPA and other state officials, most leaks are found when tanks are closed or when tanks are upgraded. A majority of leaks are caused by poor installations (75 percent according to one state).

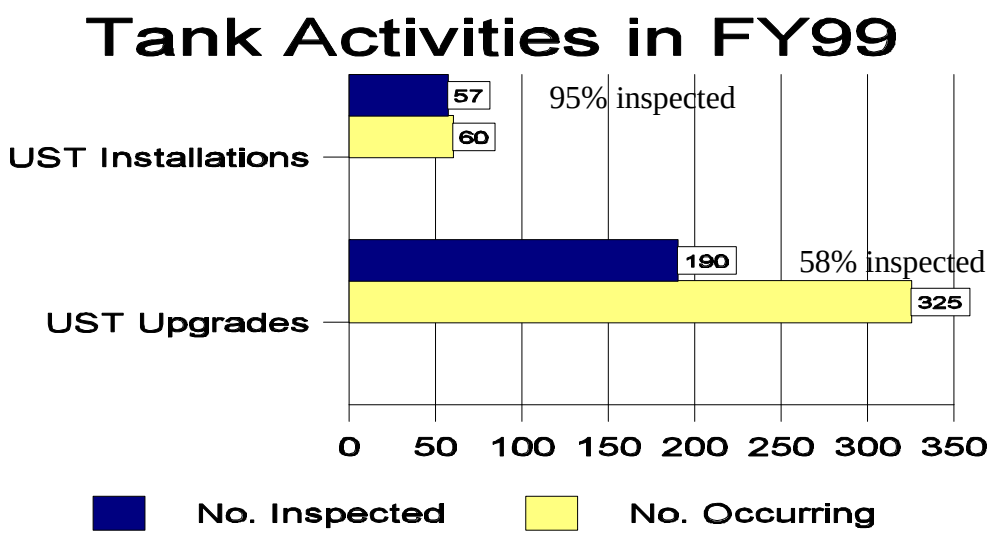
Section 8-20.5-204(4), C.R.S. that went into effect July 1, 1995, states:

> The state inspector of oils or a designee shall make an on-site inspection of **every** new installation and **every** upgrading of an existing underground storage tank prior to the operational start-up of such tank to ensure that all of the standards established in this part 2 have been met. The state inspector of oils or a designee shall complete the on-site inspection within ten calendar days prior to the anticipated operational start-up date. (Emphasis added.)

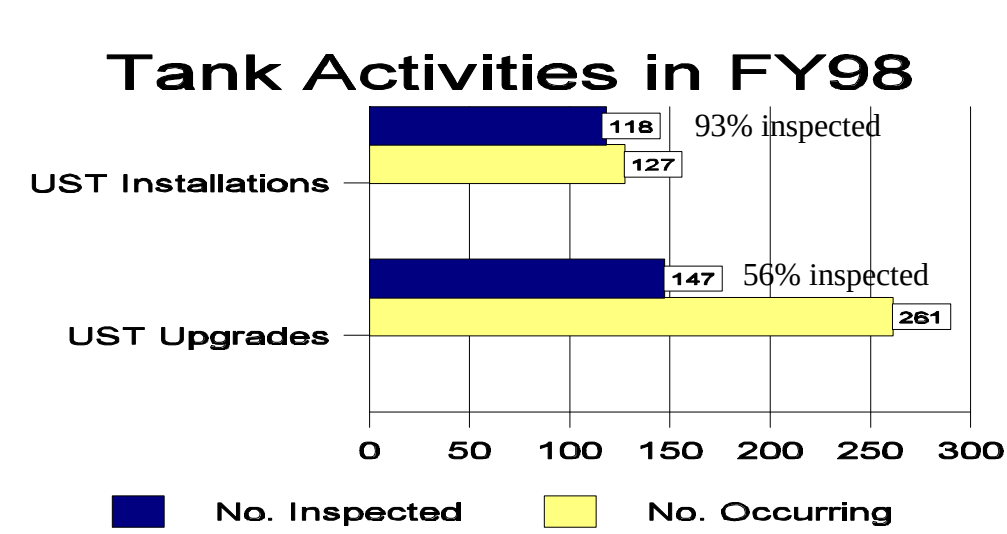
OIS management reports that:

> Inspectors attend 99%+ of all installations and upgrades. The only reason they would miss one is if they are in Denver on business or if they are otherwise engaged with another Installation Inspection in a distant part of their territories.

To determine if all underground tank installations and upgrades were being inspected as required by statute and as reported by management, we examined 1120 OIS records pertaining to tank installations and upgrades for Fiscal Years 1998 and 1999. We found only 58 percent of the UST upgrades and 95 percent of the UST installations were inspected in 1999. We found similar results for the 1998 inspection activities. The following graphs illustrate our findings:



Source: Office of the State Auditor analysis of permit applications and inspection reports for Fiscal Year 1999.



Source: Office of the State Auditor analysis of permit applications and inspection reports for Fiscal Year 1998.

Then we reviewed the records of those underground tank upgrades and installations OIS inspected in Fiscal Year 1999 and Fiscal Year 1998 to see if they were inspected within ten calender days of operational startup as required by statute. However, we were unable to determine from the documentation in OIS files whether inspections occurred before the operational start-up of the tanks or after the tanks were operational. In most cases, the inspection form was dated after the estimated construction completion date given by the owner.

OIS management reports being aware of the statutory requirement to inspect every underground tank installation, but report they did not know about the requirement to inspect every underground tank upgrade. Nor were they aware of the actual installation and upgrade inspection rate. They also assume that when installations or upgrades are not inspected that the tanks are covered up and begin operating.

The State and EPA both recognize the importance of inspection of these tank activities and correction of problems that can take place before a tank is buried and placed into operation. Having a well-trained inspector present during upgrade or installation activities can prevent future problems and help avoid costly contamination cleanup, thus conserving State Fund resources.

We believe OIS management should develop methods to ensure that inspection of all new installations and upgrades of underground storage tanks are performed and properly documented prior to the operational start-up of such tanks as required by statute. Alternately OIS can develop and recommend a statutory change to the General Assembly if it believes that the risks of not inspecting all installations and upgrades is acceptable.

Recommendation No. 1:

The Department of Labor and Employment Executive Director and the Division of Labor management should make OIS management accountable for controlling and limiting environmental petroleum leaks by:

a. Developing methods to ensure that the Oil Inspection Section fulfills its statutory responsibility to make an on-site inspection of every new installation and every upgrade of an existing underground storage tank prior to the operational start-up of such tanks. Alternately OIS can develop and recommend to the General Assembly an amendment to Section 8-20.5-204(4) C.R.S.

b. Properly documenting the occurrence of such inspections.

Department of Labor and Employment/Division of Labor Response:

Implemented. On June 1, 1999 we started inspecting every upgrade to underground storage tanks. It was always our goal to inspect every installation of new underground storage tanks. Statistics contained in this report are slightly different than the statistics at OIS. We can document however that during FY 98 that we inspected 97 percent of the installations of new underground storage tanks that required inspections. Three installations were not inspected during FY 98 because we were not notified and they were installed illegally.

In FY 99 we can document that we have inspected 99 percent of the new underground storage tank installations that required inspections. One installation was not inspected during FY 99 because we were not notified and the tank was installed illegally.

We did not inspect all upgrade installations to underground storage tanks before they went into operation. In many cases where the upgrade included only the installation of an overfill prevention device or a spill bucket, we chose not to inspect those before they became operational because in our risk-based view, it was not critical and not cost effective. Instead, we inspected those types of minor upgrades at our next regularly scheduled inspection. We inspect those upgrades that involved the tank because of our policy of verifying a pressure test on the system prior to the operation of that system.

Some Contaminated Sites Can Be Cleaned Up With Federal Funds

In 1986 Congress created the Leaking Underground Storage Tank Trust Fund (LUST Fund). This fund is to be used to pay for cleanups and oversight at sites where the owner or operator is unknown, unwilling, or unable to respond, or which require emergency action (before the identity of a responsible party is known).

The LUST Fund is financed nationally through a tax of .01¢ per gallon on motor fuel. States with cooperative agreements with EPA receive funds from the LUST Fund to pay for the reasonable costs of corrective or enforcement action by a state with respect

to the release of petroleum from a UST; the State Fund provides a 10 percent match of federal funds received. State statutes direct the Inspector of Oils to act promptly on reported petroleum releases and authorize agreements with EPA to apply for and receive grants.

OIS entered into a cooperative agreement and identified and reported to the EPA that 239 LUST Fund-eligible sites existed in the State in 1997. The number of sites has since been reduced due to various reasons including identification of the responsible party, handling of the site by EPA or another entity, or inability to verify the complaint. Current OIS records show that:

- 36 sites have been investigated and/or cleaned up in Fiscal Years 1995 through 1998 according to OIS invoice records.

- 117 eligible sites remain to be investigated and/or cleaned up.

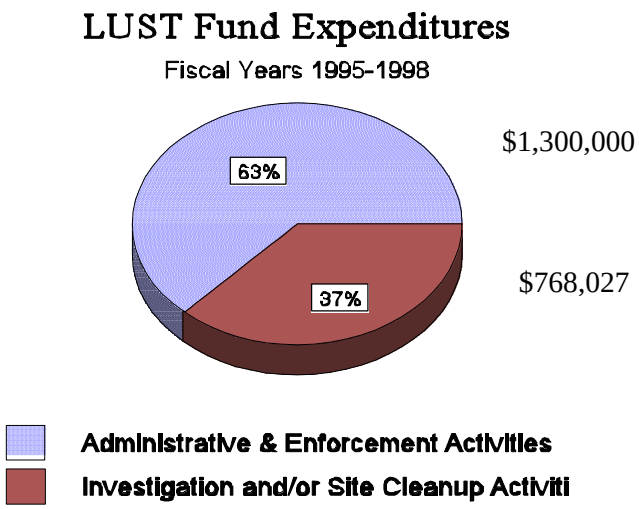
Pursuant to a cooperative agreement with EPA, Colorado can expend its allocation of LUST Fund monies on allowable activities which are limited to actions in response to an existing or suspected release of petroleum from a UST. Thus, an inspection and investigation to assess the site of a reported leak would be an allowable activity, but an inspection conducted as part of a routine or random inspection scheme would not be allowable.

We have classified expenditures for allowable activities into the following two categories:

- Administrative and enforcement – these activities are conducted by OIS personnel.

- Investigation and site cleanup – these activities are conducted by private contractors through contracts with OIS.

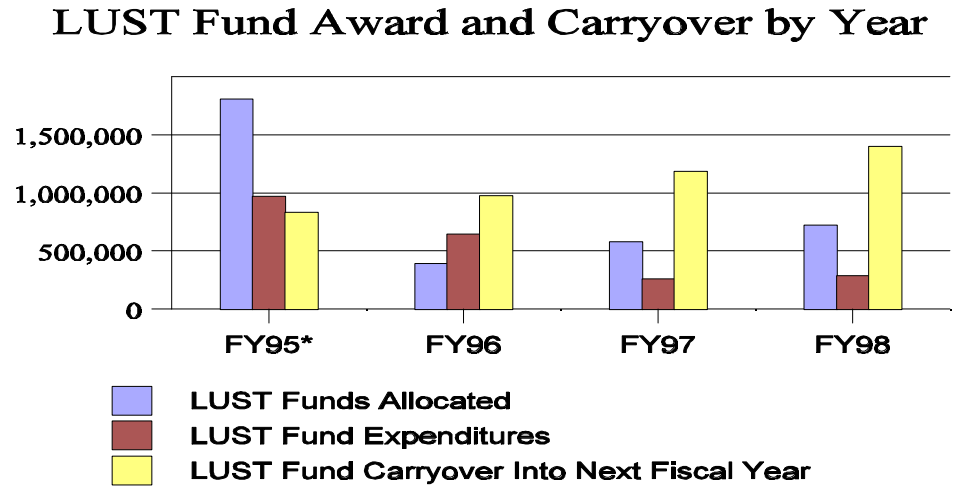
Colorado has been allocated about $3.5 million of LUST Fund monies since 1995 and has spent LUST Fund monies totaling about $2 million as of Fiscal Year 1998 as follows:



Source: Office of the State Auditor analysis of LUST Fund expenditures.

Unexpended LUST Fund monies have been carried over into future years. A total of $1.4 million in LUST Fund monies was carried over into Fiscal Year 1999 by OIS.

The EPA reports that Colorado ranked number 50 (tied with Arizona) among 57 states and territories in least amount of expenditure of available LUST Fund awards between federal fiscal years 1987 and 1998, and that the State is one of nine states which spent 67 percent or less of funds awarded. The following chart details the amount of federal funds allocated, expended, and carried over by OIS between 1995 and 1998:



* Includes monies transferred from CDPHE to DLE.

Source: Office of the State Auditor analysis of COFRS reports and OIS documents.

Although Colorado's growing LUST Fund carryover has not affected annual allocations to the State, the EPA notified the DLE Executive Director in writing on December 12, 1997, as follows:

> In past meetings with members of your staff, the EPA Region VIII, UST/LUST Program has suggested that the state LUST programs limit their yearly carry-over. After a recent review of the states' LUST carry-over records, the regional office has reexamined its position and has now adopted a policy requiring that the states limit their carryover to $500,000 to $600,000, beginning with FY98. In FY99, we will review each State's FY98 LUST carryover and trust fund use to determine FY99 allocations.

A LUST Fund carryover limit of $600,000 would reduce by $800,000 (57 percent) the funds currently available for taking actions at eligible sites in response to existing or suspected petroleum releases into the environment.

According to OIS management LUST Fund carryovers have grown because, developing and implementing the Risk-Based Corrective Action (RBCA) program has been a higher priority than the LUST program. However, now that RBCA is running, OIS plans to concentrate on the LUST fund.

We think that the State should take timely action to retain currently allocated LUST Funds by using these LUST funds to pay for the outsourcing of investigating and, if necessary, for beginning cleanup operations at the 117 eligible sites currently known to OIS.

Recommendation No. 2:

The Department of Labor and Employment Executive Director and Division of Labor management should ensure that the Oil Inspection Section addresses eligible LUST Fund sites in a timely manner by using LUST funds to pay for outsourcing the investigation and cleanup of LUST sites in an effort to retain federal funds currently allocated to suspected petroleum release investigation and cleanup.

Department of Labor and Employment/Division of Labor Response:

Implemented. The actual balance of the LUST/TRUST Fund carryover after expenditures and encumbrances as of 8/20/99 is $431,276.00. As mentioned in the report the allowable carryover from EPA is $600,000.00 therefore the OIS will not be required to forfeit any available federal funds. By September 30 the carryover will probably even be smaller.

The OIS inherited the LUST/TRUST Fund program from the Colorado Department of Public Health and Environment (CDPHE) in 1995 along with its backlog of unexpended funds and uninvestigated sites. Since completing the implementation of the Colorado Risk Based Corrective Action (RBCA) program in February of 1999, the LUST/TRUST program has been the top priority of the OIS Technical unit.

We wish to clarify a comment in the report concerning the number of sites that were stated as having “been investigated and/or cleaned up in FY 1995-1998 according to OIS invoice records” The total number of sites investigated and/or cleaned up cannot be estimated based solely on invoice records. Included in the number of sites investigated and/or cleaned up, should be the additional sites that were investigated by LUST/TRUST Fund staff only. These sites did not require the involvement of an outside contractor and associated invoice records. Approximately 50 percent of sites requiring investigations do not require outside contractors.

LUST Fund-Eligible Sites Must Be Prioritized

OIS uses a priority system to screen potential LUST Fund-eligible sites. States agree to establish a priority system when they begin accepting LUST Fund awards based on EPA's LUST Trust Fund Cooperative Agreement Guidelines, including the following:

> The State will ensure that a priority system for addressing UST petroleum release sites is established and maintained which incorporates the two priorities set forth in Section 9003(h) of RCRA. **These priorities are: releases which pose the greatest threat to human health and the environment; and sites where the State cannot identify a solvent owner or operator of the tank who will undertake action properly.** (Emphasis added.)

OIS is notified of potential LUST-eligible sites from a number of sources including communications from the public, reports from other state agencies (e.g., Department of Public Health and Environment), federal agencies, local health, or fire departments, and from OIS's internal reports/investigations/product analyses. On the basis of the information received from one of these reporting sources, OIS assigns its initial ranking to the site (from 6 to 18 with 18 being the highest priority), with public health and groundwater proximity being of greatest risk and concern. Sites are then to be prioritized by rating the necessity for further LUST Fund corrective actions depending on whether or not a solvent responsible party can be located.

However, our review of OIS's LUST Fund records found that OIS has not investigated and/or cleaned up fund-eligible sites in order of the risk to human health and environment priorities OIS developed and assigned. OIS addressed 36 sites from Fiscal Year 1995 through Fiscal Year 1998 at a cost of $768,027. Invoice records for all 36 sites show that:

- 7 of the 36 sites (19 percent) were reported and known to LUST Fund program staff before 1990.

- 21 of the 36 sites (58 percent) investigated and/or cleaned up were rated from 12.5 to 14 (with 18 being the highest priority) and accounted for 52 percent of expenditures.

- 10 sites (28 percent) were rated from 14.5 to 16 and accounted for 42 percent of expenditures.

- 5 sites (15 percent) were rated from 16.5 to 18 and accounted for 6 percent of investigation/cleanup expenditures.

OIS has divided the 117 suspected or confirmed contamination sites that have not yet been addressed into two categories: those to be addressed within the next six months (37 sites) and those to be investigated at some future point in time (80 sites). OIS records show that:

- 49 of the 117 sites (42 percent) were reported and known to LUST Fund program staff before 1990.

- 20 of the 117 sites (17 percent) rated 12.5 to 16 are not being addressed during the next six months.

- 6 sites (5 percent) rated 12 or below are on schedule to be investigated within the next six months.

The highest-ranking sites must be further evaluated to determine feasible corrective actions based on the immediate or short-term need for cleanup action, consideration of alternative actions, and the reprioritization of the action versus those selected for other fund-eligible sites. However, according to OIS management, sites have not been reprioritized as required when new data or information regarding sites becomes available, although these data or this information could cause a site to receive a higher-priority rating or a lower-priority rating. This appears to allow less contaminated sites to be addressed before those which may pose a greater danger to citizens, water resources, and the environment.

LUST Fund resources could be focused on sites that pose a higher contamination potential or risk, by addressing them in a timely manner, in the order of priority assigned by OIS's own rating system, and by updating site priorities as necessary to reflect changes in OIS's risk assessments.

Recommendation No. 3:

The Department of Labor and Employment Executive Director and Division of Labor management should ensure that the Oil Inspection Section:

a. Addresses LUST Fund site investigations by the contamination risk potential and priorities it has assigned.

b. Reprioritizes sites as necessary as information is received and based on latest risk assessment.

c. Identifies and addresses higher-priority sites in a more timely manner.

Department of Labor and Employment/Division of Labor Response:

Implemented. The OIS has re-evaluated the order in which it will investigate sites within the next 6 months. To stay within the guidelines established under the current priority ranking system, the OIS will investigate all sites with a priority ranking greater than 12.0 within this time period. Forty-eight of the 117 sites that require investigation fall within this category.

In order to achieve the new goal, the OIS has signed contracts with two new environmental consulting firms to work in the Lust Trust program. As new sites are identified with priority rankings above 12.0, they will be added to the active list and will be investigated concurrently.

Although some incidents were reported to CDPHE beginning in 1990, it was incorrectly stated in the findings of the audit that the OIS had been aware of these incidents since that time. These reports were not transferred from CDPHE to OIS until 1995. Additionally, the reports which were transferred to the OIS often contained extremely limited information (one or two sentences with a street corner intersection and a date is common). This has severely handicapped the OIS in locating the source of the complaint and/or release and in further investigating these incidents. Although it will be extremely difficult to locate these sites to perform an investigation, the OIS will address them in the order of priority they were originally assigned.

The OIS has re-prioritized those sites for which investigations have been completed. All 140 sites for which investigations have been completed since the inception of the program have been assigned a revised priority number. As additional sites are investigated, their priorities will be re-evaluated and reassigned, as appropriate.

The OIS recognizes the importance of addressing all sites identified for Lust Trust investigation, particularly those with the highest priority numbers, in a timely manner. To help achieve this goal, the OIS has incorporated minimum acceptable project turn-around times and budget management into the performance plans for those working in the Lust Trust program.

Cost-Recovery Effort Is Required

LUST Trust Fund Guidelines regarding cost recovery require the State to pursue recovery of federal Trust Fund expenditures. The State is to make reasonable efforts to recover costs, including interest, from liable owners/operators where the recovery effort would not impair the ability of responsible parties to continue in business (i.e., solvent parties) if there was no negligence or misconduct by the responsible party/owner. The Guidelines require recovered monies to be dedicated to additional LUST Fund-eligible activities (e.g., site assessment, cleanup, administration, and enforcement).

OIS invoices show 36 sites using LUST Funds Fiscal Year 1995 through Fiscal Year 1998. The responsible party has since been identified for 22 (61 percent) of the sites. About $567,000 was expended from LUST Funds to investigate and/or clean up these 22 sites. However, OIS has not sought reimbursement from most of the 22 responsible parties. We found:

- Reimbursement claim notifications were sent to three responsible parties.
- Two were not resolved or followed up on.
- A negotiated settlement for $15,000 (of a $54,000 invoice) was reported to have occurred with the third party.

The $15,000 recovery represents only 2.6 percent of the $567,000 LUST Funds expended. This means that OIS has recovered only $1,500 of the $56,700 (i.e., the required State match of 10 percent of $567,000) that came out of the State Fund.

If OIS does not reduce its LUST Fund balance by the end of Federal Fiscal Year 1999, EPA limitations on OIS's ability to continue carryover of all of its unspent federal funds into future years; reduced future allocations to the State of LUST Fund monies, and OIS's 2.6 percent cost-recovery rate threaten the State's ability to address currently eligible and future sites with monies that are 90 percent federal. For example, assuming that the $26,000 average cost of investigating and/or cleaning up 22 LUST sites is representative of costs for addressing each future site and that at least 50 percent of the sites will require clean-up, we found that:

- Investigating and/or cleaning up 50 percent of Colorado's 117 known eligible sites would cost $1.5 million if each site incurred the $26,000 average cost.

- Subtracting $1.4 million of currently available federal LUST Funds from the $1.5 million cost yields a shortfall of $100,000 (less 10 percent of State matching funds), equivalent to about 4.6 sites.

- Reducing the $1.4 million of currently available LUST funds by limiting the LUST Fund carryover to $600,000, as discussed on pages 24 and 25, would reduce federal funds by an additional $800,000 (less 10 percent of state matching funds), yielding a total shortfall of $936,000, equivalent to 36 sites.

A $936,000 shortfall could negatively impact the State Fund because statutes require the Inspector of Oils to act upon petroleum releases and provide for payment for such actions with State Fund resources.

In addition to our prior recommendations, OIS could protect the assets of the State Fund by seeking timely recovery of costs from all responsible parties based upon documentation of their ability to repay.

Recommendation No. 4:

The Department of Labor and Employment Executive Director and the Division of Labor management should:

a. Ensure that the Oil Inspection Section actively pursues and documents cost recovery actions.

b. Assess a responsible party's ability to repay in all cases where a solvent party responsible for petroleum contamination is identified and OIS has expended LUST Funds to investigate and/or clean up a site.

Department of Labor and Employment/Division of Labor Response:

Agree. As mentioned in our response to recommendation number two, the LUST/TRUST program has become a priority since the implementation of RBCA on February 1, 1999. The OIS is aware of the importance of preserving and increasing the availability of funds for the LUST Trust program. One important aspect of this effort is the recovery of costs incurred when a responsible party is identified through a Lust Trust investigation.

Another potential source of recoverable funds are those parties known to be responsible for a release but who have been unwilling to perform their own investigation and remediation. To implement cost recovery the OIS will:

- Determine criteria for prioritizing cost recovery efforts, including factors such as solvency of the responsible parties, age of debt, and amount of debt.

- Work with the CDLE Finance department to identify all direct and indirect costs expended, by project.

- Develop procedures for payment invoicing, collection, negotiating settlements, and enforcement should payments not be received

- Send requests for cost recovery to those parties currently identified as meeting the above criteria by November 1, 1999. Send requests to parties identified in the future within one month of completion of investigation/corrective actions.

- OIS will be receiving the FY 1998 grant as well as the FY 1999 grant which should cover any "shortfall".

The OIS is taking additional efforts to preserve the availability of funds for the LUST Trust program including changes that were recently incorporated into the Master Agreement. The Master Agreement is the contract that governs the work performed by Lust Trust Fund contractors. Changes include the addition of risk-based corrective action (RBCA), which was designed and implemented to streamline the remediation process. Using RBCA, the selected remediation technology is determined based on the actual threat to receptors. This means in many cases that sites that previously may have required expensive remediation may now require only limited monitoring or may be closed. The Master Agreement also requires that the contractors abide by the Reasonable Cost Guidelines, which were established by the OIS to control costs associated with assessment and remediation activities. The contractors will also be required to prepare their reports on standardized formats that will expedite both report preparation by the contractors and the review by the OIS.

Privatizing Pollution Risk Liability

When the EPA developed the rules implementing federal underground storage tank (UST) regulations, they acknowledged that insurance was their mechanism of choice

for most tank owners to be able to demonstrate financial responsibility. However, with heightened awareness and demand for resolution of "historical" contamination which occurred before tank upgrading or replacement, the insurance industry had created an absolute pollution exclusion clause by 1986 that was standard on comprehensive general liability policies. These policies would not provide coverage for "historical" environmental damages, and the availability of insurance for USTs was limited.

In response, the EPA developed regulations allowing states to develop financial responsibility funds which could be certified as a mechanism to comply with federal financial responsibility requirements and to help clean up sites contaminated by petroleum releases. State funds act as reimbursement mechanisms paying back owners and operators for costs incurred in remediating petroleum releases. The funds can also be used to clean up petroleum releases from abandoned tanks of unknown ownership or tanks whose owners are unwilling or unable to clean up leaks, and tanks of innocent owners and other third parties. To date, 42 states have submitted their state funds for approval and the EPA has approved 34 of these funds, including Colorado's in 1998.

Colorado's State Fund was authorized by statute in Fiscal Year 1989. The Fund covered about 13,000 registered underground storage tanks. In 1995 about 2,000 registered above ground tanks (AST's) were added to the State Fund's coverage. The primary sources of the Fund's revenues were an annual tank registration fee of $35.00 per tank paid by owners and a flat $25 per tank truckload environmental response surcharge imposed on all petroleum products (except railroad or aircraft fuel). The surcharge is paid by manufacturers and distributers of fuel, to the Department of Revenue, for deposit in the State Fund. Statutes limit program administration costs to the revenues generated by tank registration fees each year (about $670,000 FY98) and require surcharge revenues (about $18.6 million in FY98) to be used for petroleum release corrective action purposes and third party liability (Section 8-20.5-103).

Nationally, growing cleanup costs and claims have posed solvency concerns for state funds, causing states to explore options, such as reassessing private insurance, setting cost-reimbursement deadlines, and increasing environmental response surcharges. Colorado responded to its escalating cleanup costs by:

- Excluding from reimbursement eligibility most tank releases and cleanups occurring before December 22, 1988, and for some applications not submitted by December 31, 1991. Owners of these tanks are solely responsible for securing independent financial assurance and complying with federal regulations even though the surcharges must be paid on fuel delivered to those tanks. This cost control action had unintended consequences. State Fund adequacy and solvency became issues subject to litigation because a corporate owner of a number of these tanks sued the DLE. However, on April 19, 1999

the Colorado Supreme Court upheld the DLE's right to promulgate rules setting eligibility cut-off dates and denying reimbursement from the State Fund.

- Increasing environmental surcharge fees once in 1992 and again in 1996 as required by statutory change. Revenue increased to about $30 million, or by 254 percent in FY97, making the State Fund 1 of 14 major revenue sources that grew above the TABOR limit. This increase had the unintended effect of displacing excess revenue that could have been kept and used for general fund priorities.

The State Fund will need to continue generating revenues to pay for current petroleum releases and claims because aboveground tanks (ASTs) and associated sites throughout the State have yet to be remediated and the owners reimbursed. Revenues will be needed to remediate abandoned and orphaned tank sites and for tank sites of unresponsive or innocent owners. Revenues will also be needed until all owners (including third parties like mortgagees) of State Fund eligible underground an aboveground tanks have been reimbursed. In addition to needing future revenues to pay for current releases and claims, the State Fund is also permanently liable for a subsequent round of claims. This is because tank owners who have been reimbursed and/or are in compliance with 1998 standards can continue to make claims against the State Fund indefinitely.

Transition to Commercial Insurance Is a Growing Fund Downsizing and Privatization Option

State funds were created to address unavailability of commercial insurance. The problems associated with leaking tanks were so prevalent and so costly that commercial insurance companies declined to continue writing policies in the late 1980s. However, the development of better tanks and more stringent regulations has caused commercial pollution liability insurance to be more available and less costly for upgraded and new tanks. The EPA reports that:

> Growth of this insurance market has not been limited by a lack of supply, but rather by a lack of demand due to competition from state assurance funds.

Nationally, insurance premiums for upgraded tanks have been falling from $1,000 per tank in 1989 to an average of $400 per tank. By contacting one major provider of this type of environmental insurance, we found annual premiums as low as $250 for tanks under eight years old and up to $735 for 20-year-old tanks. This agrees with information we received from Arizona, Wisconsin, and Nebraska, who are either investigating or have instituted privatization of liability. Tanks in compliance with federal EPA regulations would be eligible for coverage under most insurance

programs. Evidence of upgrading or tightness is required prior to coverage, and most companies prefer to insure tanks that are upgraded or put into service after 1987. Older tanks can be considered at a surcharged rate. Deductibles can also be lower than State Fund deductibles, with $5,000 being the minimum we found, whereas the State Fund deductible is $10,000.

Advantages to tank owners of privatizing tank insurance:

- All of the risk (with the exception of deductibles) will be transferred to the insurance carriers.
- Losses are paid "on behalf," which means the owner/operator does not have to make payment then seek reimbursement.
- Loss-control services are provided by the insurance companies.
- Claim services are provided by the insurance companies.

Disadvantages to tank owners of privatizing tank insurance:

- Terms and conditions are set by the insurance companies.
- Availability may be subject to geographical and market restrictions.
- Losses that occur before the policy was purchased are not covered.
- Insurance companies may enter and leave the marketplace at their discretion.

Fund Sunset Dates Have Been Set by Other States

States are reconsidering their state fund needs because all operating underground tanks must comply with Federal Regulations by December 22, 1998. According to the 1997 EPA report, “State Funds in Transition: Models for Underground Storage Tank Assurance Funds,” at least 14 states have already made plans to downsize their storage tank programs or close their state funds after claims for releases that occurred before the 1998 deadline are reimbursed. They have set a sunset date after which new releases will not be eligible for access to state funds. Ten of these dates fall before the year 2000, so we can expect more states to make transitions. These states will rely on other assurance mechanisms such as commercial insurance, bonds, letters of credit, and corporate guarantees provided by owners to comply with federal financial assurance requirements.

With the understanding that their state trust fund was never intended or constructed to provide long-term insurance, officials in Wisconsin chose to sunset coverage for new releases as soon as tanks were upgraded and to require owners to obtain commercial insurance or use another mechanism to comply with federal financial responsibility regulations. Wisconsin’s state fund continues to cover the cleanup costs for any releases found before or during upgrades. State fund staff report that surcharge fees are passed on to consumers and will remain in force until all petroleum releases are cleaned up or on December 22, 2001.

Florida's release eligibility sunset date requires tank owners to use assurance mechanisms like commercial insurance bonds and letters of credit for operating tanks as of January 1, 1999, while maintaining its state fund for others such as abandoned or orphaned tanks and tanks of innocent or unresponsive owners. It will continue its surcharge. Florida reports that continued compliance with state and federal regulations is ensured by its inspection program. They also report that one of the key benefits to using commercial insurance is getting the state out of the "clean-up business."

A 1998 survey produced for the 7th Annual State Fund Administrators Conference, shows that a total of 22 (47 percent) of the 47 states with existing state funds have established one or more sunset dates. These relate to various aspects of their state funds including petroleum release eligibility dates, fees, state fund operations, or transition dates to commercial insurance or other assurance mechanisms as shown:

	FUND SUNSET DATES			
STATE	Release Eligibility Sunset Date	Fee Sunset Date	Program Ending Sunset Date	Fund Transition to Private Financial Responsibility Assurance Mechanisms
Alaska	6/30/94			N/A
California	1/1/05	1/1/05	1/1/05	unknown
Colorado	none	none	none	unknown
Delaware		12/31/01	12/31/01	N/A
Florida	12/31/98			as of 1/1/99
Iowa	10/26/90		7/1/09	in 3 years
Kansas	6/04	6/04	6/04	no
Maine	10/1/98	12/31/05		in 7 years
Massachusetts		6/30/99		unknown
Michigan	6/18/89	when debt paid	6/29/95	transition complete
Minnesota	6/30/05	6/30/05	6/30/05	in 7 years
Missouri		triggered by fund balance	12/31/98	unknown
North Dakota		6/30/99	6/30/99	unknown
Nebraska	6/30/99			unknown
New Hampshire		1/1/05		unknown
Oklahoma		12/31/09	12/31/09	unknown
South Carolina	2026	2026	when funding is depleted	unknown
Texas	12/23/98	9/1/01	9/1/01	in 3 years
Utah	2008	2008	2008	unknown
Vermont	7/1/04	4/1/06	$ run out	unknown
Washington			6/30/01	N/A
Wisconsin		12/22/01		USTs now/ ASTs in 3 years
West Virginia				in 3 years

Source: Session Highlights, 7th Annual State Fund Administrators Conference, 1998. Responses appear as provided by states.

Colorado's State Fund is solvent today. However, there are no sunset dates to focus all stakeholders, including the State, on reevaluating the continuing appropriateness of business decisions which created the State Fund in 1989. The Fund should be reviewed for possible downsizing or termination when major portions of its original

mission have been completed. As of December 22, 1998 most operating underground storage tanks (USTs) have been upgraded and cleanup of contaminated tank sites has occurred. Thus, other forms of financial responsibility assurance are now available to owners of those tanks. Because there is no sunset date for State Fund eligibility, tank owners who have already been reimbursed and/or are in compliance with 1998 standards can continue to make claims against the State Fund indefinitely.

Consideration of privatizing, downsizing, and sunsetting options may be viewed as particularly timely, since most owners and operators have upgraded or replaced underground tanks by December 1998 and, in the process, should have discovered the bulk of historical contamination as well. As a result, owners and operators should have clean sites that would be candidates for commercial insurance at competitive prices.

OIS could reduce the State Fund's liability for subsequent clean up of new and upgraded tanks and help ensure that future State Fund revenues for current releases and cleanups are available, while keeping surcharge fees to a minimum. This could be accomplished by working with the Petroleum Storage Tank Committee, the petroleum and insurance industries, and other stakeholders to privatize pollution risk liability for upgraded tanks and remediated sites as soon as practicable.

Recommendation No. 5:

The Department of Labor and Employment Executive Director and Division of Labor management should ensure that the Oil Inspection Section works with the Petroleum Storage Tank Committee, the petroleum and insurance industries, and other stakeholders to consider privatizing pollution risk liability for new and upgraded tanks and remediated sites as soon as practicable by:

a. Developing and proposing to the General Assembly a release eligibility sunset date for the State Fund to exclude claims from owners/operators for new and upgraded tanks.

b. Encouraging those owner/operators to obtain private forms of financial responsibility assurance. This includes exploring the possibility of some level of State Fund subsidy for private insurance costs during the transition period from public to private operation.

Department of Labor and Employment/Division of Labor Response:

Disagree. The purposes of the Petroleum Storage Tank Fund are to assist owners in the cleanup of contamination of leaking petroleum storage tanks and to allow owners a mechanism to be in compliance of the federal financial responsibility regulation of $1 million dollars per leak occurrence. In the Spring of 1998, EPA certified the Colorado Petroleum Storage Tank Fund as an approved mechanism to meet this federal financial responsibility regulation. If the Colorado Petroleum Storage Tank Fund is eliminated thousands of Colorado tank owners will be potentially in violation of the federal financial responsibility regulation and would be subject to a possible $10,000 dollar per day fine from the US EPA.

The fund also applies to "innocent owner" category. This group includes innocent property owners, abandoned tank owners and lenders. These groups were added to the fund to help those folks to cleanup sites that had nothing to do with contamination and to motivate banks and other lenders to loan money to those who plan to upgrade and/or install new tanks. Private insurance most likely would not be available to those groups who are not in the tank business.

The state legislature has dealt with the Sunset of the State Fund in 1997 by eliminating the 1997 date. Additionally the state legislature implemented that July 1, 2001 if the fund balance exceeds $8 million, there will be no environmental surcharge and if the balance falls below $8 million, the surcharge will only be $25 per truckload which is half of what it is today.

In 1998 the US EPA and the Association of State Fund Administrations selected the Colorado Petroleum Storage Tank Fund as "the best fund in the country for getting the job done."

Allocation of Inspection Resources Still Needs Improvement

In our 1996 audit, OIS management reported that the 1993 increased workload of enforcing underground (UST) and aboveground (AST) storage tank laws had an effect on gas pump inspections, one of their major duties and activities. The frequency of the inspection of gas pumps changed from twice each year to annually a 50 percent

reduction. OIS did not project any changes in pump accuracy before the change or document any material accuracy reductions after the 50 percent reduction in resources allocated to routine retail station/pump inspection. OIS also reported continuing to search for:

> ... ways to free Oil Inspector's time to perform other necessary inspection functions such as: propane bulk plants, unattended automated fueling facilities, commercial fueling facilities, storage tank installations and closures.

We also searched for ways to save money and/or provide opportunities to reallocating resources by freeing up an inspector's time.

Based on experience in other states, further reducing inspection frequency could save money without risking a decline in pump accuracy. For example, inspecting Colorado's service station dispensers by using an Arizona-like three-year random cycle for lower-risk dispensers and a risk-based annual schedule for higher-risk dispensers that failed inspection would produce the following:

- **Lower-risk** 89 percent of dispensers would be randomly selected for inspection once every three years.

- **Higher-risk** 11 percent of dispensers would continue to be inspected annually.

Assigning risk and inspection frequencies for service station dispensers as illustrated in the example could have saved about 59 percent annually in recurring general fund expenditures (based on OIS's ability to reduce fixed and overhead costs 59 percent).

Our first audit recommendation in 1996 was:

> The Oil Inspection Section should develop a risk-based inspection schedule for all service station pumps/dispensers it regulates, decrease and increase inspection frequencies as applicable, and change its rules and regulations accordingly.

OIS agreed with the concept of a risk-based approach to service station meter inspections and said that they implemented that sort of approach when they reduced inspection frequency from every six months to annually in 1993. OIS agreed to design and implement a risk-based plan for inspecting service station meters. The plan would be tested in four oil inspectors' territories for a specified period of time. At the conclusion, OIS would determine what time savings were accomplished and what the impact was on meter accuracy. On the basis of those results, OIS was to implement

a full-scale risk-based inspection plan, expand or adjust the test, or return to current inspection schedules.

OIS reported the results of its test as follows:

> Oil Inspection partially agreed with this recommendation pending a test in parts of four oil inspector territories which included service station dispensers in thirty-eight zip code locations across the state. The test included inspections made during 1995, 1996 and 1997. The intent was to greatly reduce the number of dispenser inspections during the middle year to determine if it would impact the number of dispensers that would have to be adjusted in the third year. During 1995 our inspectors adjusted 7.2 percent of the dispensers inspected in the test areas, and in 1997 adjusted 6.6 percent of the dispensers inspected in the test areas. During 1996 most of these dispensers were not inspected.

This means that dispenser failures declined 8 percent after OIS started inspecting dispensers at two-year intervals instead of annually in the test area. This appears to be a 50 percent reduction in inspection resource costs with no negative effect. In spite of these remarkable test results, OIS has not expanded this policy statewide.

OIS continues to allocate the time of its 12 inspectors to a "one size fits all" inspection policy reporting on December 31, 1998, that:

> ... our goal is to inspect each retail station every 12 months and each commercial site every 18 months.

Consequently, OIS also reports that gas pump inspections are running three to six months behind schedule. We reviewed the Fiscal Year 1998 resources allocated to service station inspections for each of the 12 inspectors assigned to specific territories statewide as shown in the following chart:

Oil Inspection Section - Work Totals and Percentages									
	Stations			Pumps					
Inspector Number	Assigned	Inspected	%	Assigned	Inspected	%	Incorrect	%	Miles Traveled
1	973	273	28%	3434	3385	99%	440	13%	21050
2	471	316	67%	3620	3741	103%	195	5%	12012
3	466	354	76%	2911	2651	91%	67	3%	28183
4	368	113	31%	3194	2077	65%	92	4%	12458
5	466	493	106%	3932	4795	122%	323	7%	14444
6	263	314	119%	2870	3823	133%	67	2%	19580
7	416	200	48%	4387	3563	81%	163	5%	16289
8	327	325	99%	2416	2779	115%	263	10%	22652
9	306	207	68%	1999	1946	97%	137	7%	29149
10	375	390	104%	2001	2109	105%	112	5%	28627
11	283	280	99%	1623	2164	133%	193	9%	28419
12*	299	314	119%	1620	3813	235%	52	2%	13369
TOTAL	5013	3314		34007	36846		2104		246232
AVG	418	276	66%	2834	3071	108%	175	6%	20519

Source: OIS management report dated June 26, 1998.
* Annualized number.

We were unable to determine:

- If resources had been allocated and expended on the basis of risk or any other systematic basis. For example, inspector no. 1 was assigned 133 percent more stations than average and had the lowest rate (28 percent) of stations inspected to the number assigned over 12 months.

- Any relationships between stations inspected, assigned, and miles driven. For example, inspector no. 10 is the sixth highest in stations assigned, second highest in stations inspected and third highest in miles driven.

To learn the basis OIS uses to allocate inspector resources and compare individual workload and performance, we analyzed management's "time in relation to work" weekly monitoring reports and found:

- There are four inspectors assigned to cover various regions in the Denver metropolitan area. Two of these inspectors accounted for 10 percent each of work performed by the unit, one accounted for 9 percent, and one accounted for only 5 percent of total work performed. Likewise, for two inspectors assigned to the area surrounding Colorado Springs, one inspector accounted for 14 percent of total work and the other accounted for 9 percent.

- The ruralness of some inspectors' territories and the travel hours necessary to reach certain areas account for some of the differences in the amount of work performed, but do not explain all differences. An inspector who covers the Grand Junction territory had 582 travel hours and accounted for 10 percent of all work performed, while another inspector in the metro area had 373 travel hours and accounted for 5 percent of the work.

We also found that the information in management's "time in relation to work" weekly reports:

- Has not been used to reallocate inspection workload according to risk.

- Has not been used effectively to track and compare individual inspector assignments, workload, and performance.

- Is not used to establish multi-year resource use comparisons and trends.

On the basis of other states' inspection programs, we still think that OIS could realize a 59 percent reduction of annually recurring gas pump inspection costs (based on its ability to reduce fixed costs by 59 percent) by:

- Inspecting higher-risk dispensers (those with failures at the previous inspection) annually; and

- Inspecting lower-risk dispensers every three years.

EPA reports that as petroleum storage tanks are replaced, upgraded, or removed to meet current standards, fewer inspection FTE and dollars will be needed for tank monitoring. Then cost reductions resulting from risk-based inspections could be converted into actual dollar savings if OIS:

- Reduced inspection frequency and costs by implementing a risk-based three-year lower-risk and annual higher-risk annual gas pump inspection program.

- Used "time in relation to work" and other management information to plan for the future elimination of excess FTE and dollars used to monitor tank activities.

Recommendation No. 6:

The Department of Labor and Employment Executive Director and Division of Labor management should:

a. Reduce inspection frequency and costs by implementing a risk-based three-year lower-risk and annual higher-risk gas pump inspection program.

b. Use management reports and information to plan for future elimination of excess FTE and funding used to monitor tank activities.

Department of Labor and Employment/Division of Labor Response:

Disagree. The Department is committed to redesigning our petroleum meter inspection strategy utilizing a risk-based approach based on type of meter, age of meter, volume of service station rather than the auditor's recommendation of a three-year cycle.

Colorado's adjustment statistic of over 6% is not acceptable to DOLE/OIS and gasoline consumers in the state. The OIS recommended risk based approach will be aimed at either reducing this percentage or preventing it from getting larger. This approach will be to address those meters that are most likely to be out of state tolerance and to place less emphasis on those that are less likely to be out of state tolerance.

This strategy cannot be accomplished on a three-year inspection cycle. In order to develop and implement this strategy, we will have to gather data on types of meters, age of meters, volumes of fuel sold by service stations, and other necessary data.

Better Inspection Data Are Still Needed to Improve Management of OIS Operations

Our 1996 audit found that the current recordkeeping method does not generate accurate and readily accessible information on the location, date of last inspection, or count of service stations or dispensers in the State. We recommended that OIS ensure that the accuracy and accessibility of its recordkeeping system is sufficient to identify its regulatory responsibilities and their fulfillment. OIS agreed with this recommendation and reported:

> The Oil Inspection Section has been aware of this problem for more than two years and, after many attempts of trying to improve the existing system, decided to consider automation. The problem has been analyzed and a decision item has been prepared and approved by department management to develop a computer program that will give us immediate and historical information on service station inspections and other regulatory activities.

The Legislature approved the decision items and OIS reported in 1999 that these programs are currently under development. However, our current review found that the data accessibility and accuracy problems identified in 1996 continue to inhibit OIS's ability to identify its regulatory responsibilities and their fulfillment. Consequently, it is still difficult for OIS to:

- Verify the uniformity and effectiveness of its inspection policy or inspector workload. For example:

  OIS management gets weekly work reports from each inspector. However, they were not aware that UST installations and upgrades had not been inspected at the reported 99+%.

  After we pointed out the wide variation of reported workload and territory assignments among inspectors, OIS management expressed doubt about the accuracy of its information and asked each inspector to verify the number of facilities, pumps, and bulk plants in their territories. Management said that if they had known we would be comparing numbers this way, all the reports of an inspector would have been reviewed to see if time and work really done was properly accounted for.

  After we showed OIS management data indicating that some inspectors were effectively inspecting the facilities in their territories, while others were not,

management reported that they have never done anything similar to evaluate the performance of individual inspectors.

- Ensure that its dispenser accuracy, environmental hazard, industry, and consumer protection responsibilities are being met. For example:

  OIS records showed that 3,413 of 10,191 (or 33 percent) of USTs throughout the State might not meet 1998 upgrade requirements, thus subjecting the owners of deficient tanks to fines up to $5,000 per day. OIS management estimated the number of upgraded tanks to be closer to 75 percent and identified data problems as one of the causes for the discrepancy.

- Report accurately to the Legislature, Governor, and industry groups about resource needs, efficiency, and fulfillment of its regulatory responsibilities. For example:
  OIS management reports that they still do not know the number of gas stations and pumps, even though the money allocated and budgeted for new computer program development projects (about $1.5 million for Oil Project labor, hardware, and software) has all been spent and those portions of the projects not yet completed are on hold.

We reaffirm that OIS management should be accountable for developing and organizing its inspection information in a way that allows it to know the location of and the number of fuel outlets, dispensers, meters, and storage tanks it is responsible for regulating and to use that information for budgeting, reporting, supervising, and improving operational efficiency.

Recommendation No. 7:

The Department of Labor and Employment Executive Director and Division of Labor management should ensure that OIS management is accountable for developing and organizing its inspection information in a way that allows it to know the location of and the number of fuel outlets, dispensers, meters, and storage tanks it is responsible for regulating and to use that information for budgeting, reporting, supervising, and improving operational efficiency.

Department of Labor and Employment/Division of Labor Response:

Agree. We agree with the recommendation and a new database for field inspections will be developed and implemented by July 1, 2000. However, we disagree with some of the statements in the narrative preceding this recommendation. Listed below are two examples:

1) "OIS management gets weekly work reports from each inspector. However, they were not aware that UST installations and upgrades had not been inspected at the reported 99+%."

This is an unfair statement because it is taken out of context of a larger informal conversation between the auditor and an OIS supervisor involving inspections of the 12/22/98 deadline as well as inspections of all upgrades and new tank installations. During that informal conversation, the OIS supervisor was asked how many new tank installations do we inspect and the answer was "I think we inspect 99% of the new installations." We were not asked to research our files to validate the number so at the time we did not think it was a pertinent question. Because of this circumstance, it is incorrect for this report to state that we were not aware that UST installations had not been inspected at the 99%.

2) "After we showed OIS management data indicating that some inspectors were effectively inspecting the facilities in their territories, while others were not, management reported that they have never done anything similar to evaluate the performance of individual inspectors."

If the above statement suggests that there may be better ways for us to collect data regarding inspections, we agree. However if the purpose of this statement is to insinuate that our individual Oil Inspectors are not being properly supervised, it is false.

The report details the deficiency in our data regarding the percent of underground storage tanks that potentially did not meet the December 22, 1998 upgrade requirements. This discrepancy had nothing to do with our data collection but had everything to do with tank owners failing to notify us that they upgraded their tanks. The report failed to mention that during the summer of 1998, we conducted an extensive survey from tank owners who according to our database had not upgraded their tanks. The results of that survey

allowed us to update our database and helped us determine where to target our inspections in early 1999.

Boiler Inspection Section

Chapter 2

Background

The manufacture and use of boilers and pressure vessels began during the Industrial Revolution in the late 1800s. Through the production of high-pressure steam, boilers provide energy for generating electricity. Boilers are also used for hot water heating, for storage and supply, or for space heating.

The demand for boilers and pressure vessels has increased since the Industrial Revolution. However, the risk has been greatly reduced by state adoption of rules and regulations based upon the American Society of Mechanical Engineers (ASME) and National Board of Boiler and Pressure Vessel Inspectors (National Board) codes. The Boiler Inspection Section (BIS) has adopted an annual inspection program for all boilers and pressure vessels in all commercial buildings, and in apartment buildings of six or more units, to protect lives and property.

BIS is cash-funded by inspection certificate charges paid by owners and users of various state-regulated boilers. The charge for the issuance of a certificate of inspection in Fiscal Year 1999 was $22. Statutes impose a $40 ceiling on the amount BIS can charge for an inspection certificate. BIS reports spending about $730,585 for operations in Fiscal Year 1998 and has about 38,000 boilers identified in its records.

Statutes require all active boilers (those currently in use) regulated by BIS to have a valid certificate of inspection showing an expiration date and maximum operating pressure after being inspected by either:

- State inspectors employed by BIS and qualified on the basis of relevant industry experience. There are eight state inspectors, each with a unique geographic territory based on the number of boilers and required travel. (BIS has been authorized a total of 10 inspectors as of July 1, 1999.)

- Special inspectors employed by individual insurance companies to inspect those boilers insured by their companies. Company inspectors must be commissioned by the National Board and authorized by BIS to inspect insured boilers in the State of Colorado.

BIS records show that as of December 1998, 14,751 (48.5 percent) active boilers that BIS regulates were assigned to state inspectors and 15,675 (51.5 percent) were delegated to insurance company inspectors. In addition, all 9,000 boilers located in Denver have approval from BIS to be regulated and inspected by the City and County of Denver.

Findings

We reviewed BIS and compared its policies and procedures with other states' boiler inspection programs and statutory and national industry standards. We found that BIS should:

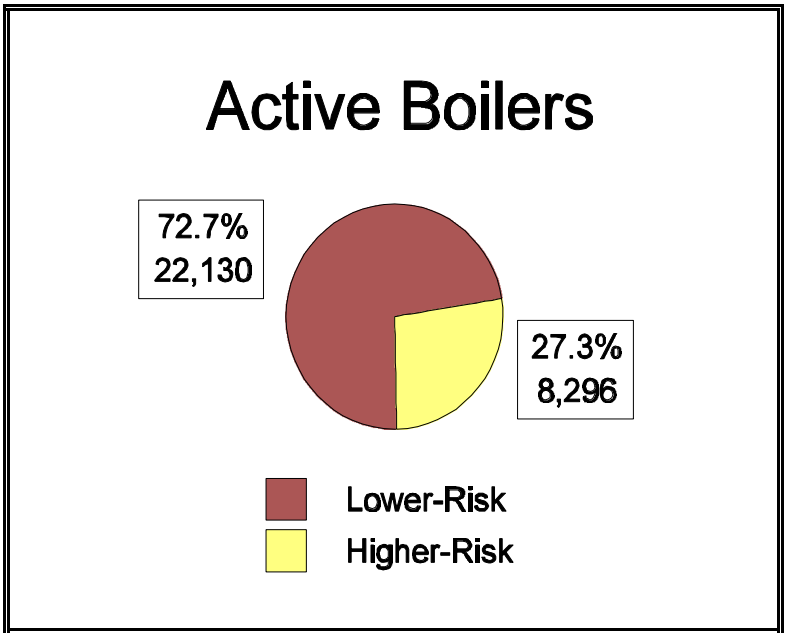
- Use National Standards to increase safety and decrease costs and fees.
- Perform routine inspections of only active boilers, those being used or proposed to be used.
- Continue to rely on boiler owners to correct boiler deficiencies and report those corrections to BIS.
- Improve inspection-scheduling efficiency and resource allocation by requiring owners to provide BIS disconnection notification and to pay a disconnection inspection fee.
- Come into compliance with recommended industry standards by establishing a certificate fee that benefits all owners.
- Ensure that indicators used in representations to the Joint Budget Committee are clear, consistent, and accurate.

Using National Standards Could Increase Safety and Decrease Costs and Fees

Boiler Inspection Section (BIS) policy, as reported in their Fiscal Year 2000 budget request, requires that all 38,000 boilers recorded in their Boiler Inspection Automated System (BIAS) records be inspected annually.

Statutes and BIAS identify regulated boilers as power boilers, steam heating boilers, hot water heating and supply boilers, and certain domestic-type water heaters. These

boiler types are defined by a variety of criteria including the design, operating temperature, operating pressure, size, and use. Boiler types also relate to a boiler's potential hazards and relative risk. The National Board of Boiler and Pressure Vessel Inspectors (the National Board) standards allow certain boilers to be inspected biennially. We have categorized boilers in the BIAS database as lower risk if they can be inspected at biennial frequencies, and higher risk if more frequent inspection is called for by the Board. The relative proportion of higher-risk to lower-risk active boilers in Colorado at the end of Calendar Year 1998 is summarized below:



Source: Office of the State Auditor analysis of BIAS database as of mid-December 1998.

BIS records also identify boilers as Active (A), Out of Service (O), and Scrapped (S). In Calendar Year 1998 30,426 (80 percent) of 38,000 boilers were active, thus subject to a statutorily required routine annual certificate inspection, payment of a fee, and posting of a signed Certificate of Inspection. BIS delegated certificate inspections of all 15,675 (51.5 percent) insured active boilers to insurance company inspectors. The remaining 14,751 (48.5 percent) annual certificate inspections were the responsibility of state inspectors employed by BIS. Per statute, all new or used boilers being placed into service must also be inspected by state inspectors within 10 days or as soon as possible after BIS has been notified by installers.

BIS reports in the Department of Labor and Employment (DLE) Fiscal Year 2000 budget request that:

> The growing state population has caused an increase in the number of businesses, schools and public buildings. This means a greater demand for boiler and pressure vessel inspections...they [insurance inspectors] consistently lag behind in their inspections every month...Boiler Inspection itself is understaffed, and cannot keep up with the increased workload, while attempting to minimize the past-due inspections, as required by statute...state inspectors [are] taking as long as two to three months to perform any new [boiler installation] inspections...Presently, the state Boiler Inspection staff cannot satisfy the customers' needs and perform all of its duties as required by statute.

As reported in our 1996 audit and again in 1998, neither state inspectors nor insurance inspectors fulfilled all their inspection responsibilities.

Number of Past-Due Certificate Inspections

	0-6 mo	6 mo-1yr	> 1 yr	Total
BIS				
Higher-Risk	99	51	46	196
Lower-Risk	220	105	93	418
Total	319	156	139	614
Insurance Companies				
Higher-Risk	437	149	147	733
Lower-Risk	996	308	299	1,603
Total	1,433	457	446	2,336

Source: Office of the State Auditor analysis of BIAS database for Calendar Year 1998.

BIS' strategy for fulfilling its oversight responsibilities is reflected in its Fiscal Year 1999-2000 budget request to raise fees 36 percent, from $22 to $30 per inspection certificate. Resulting revenues are projected to increase 42 percent, from $684,200 in Fiscal Year 1999 to $971,631 in Fiscal Year 2000. BIS plans to use the increased revenues to hire two boiler inspectors, pay for operating expenses, new computers and software upgrades, and maintain the Boiler Fund balance.

An alternative strategy, which we recommended in 1996, could enable BIS to fulfill its oversight responsibilities and hold down fee increases to its customers. Our 1996 audit found that:

- Many of the 46 states with boiler inspection programs scheduled inspections less often for lower-risk boilers and more often for higher-risk boilers.

- 26 of the 46 (57 percent) states inspected steam heating and low-temperature/low-pressure hot water boilers once every two years, or in some cases longer, and 29 of 46 (63 percent) states inspected domestic-type hot water heaters once every two years or longer.

- 36 of the 46 (78 percent) states inspected power boilers and high-pressure/high-temperature hot water boilers twice per year, while the remaining other states inspected on an annual basis.

At that time, BIS agreed with our recommendation.

In 1998 the National Board published Recommended Boiler and Pressure Vessel Safety Legislation and Administrative Rules and Regulations, which recommended inspecting higher-risk boilers every year and all other boilers no more than biennially.

If adopted, the National Board's recommended biennial inspection frequencies for lower-risk boilers could allow the State's inspectors and insurance company inspectors to do all of their assigned annual certificate inspections on time while requiring fewer inspections than each were actually able to perform with existing staff and resources in Calendar Year 1998. For example, the chart below shows that revenue could remain unchanged if the National Board's recommendations were adopted while maintaining the current $22 fee for annual certificate inspections, and adopting a $44 fee for biennial certificate inspections.

Boiler Type	Active Boilers (Current # Annual Certificate Insp)	Current Revenue	Recommended Inspection Frequency	# Annual Inspections at Recommended Frequency	Revenue With Annualized Fees
Higher-Risk	8,296	$182,512	Annual	8,296	$182,512
Lower-Risk	22,130	$486,860	Biennial	11,065	$486,860
Total	**30,426**	**$669,372**		**19,361**	**$669,372**

Source: Office of the State Auditor analysis of BIAS database as of mid-December 1998.

Current Statutes Prevent Adoption of National Standards

Adopting the National Board's biennial inspection frequency recommendation for lower-risk boilers, with a $22 fee for annual certificate inspections and a $44 fee for

biennial certificate inspections is currently prevented by the following statutory requirements:

> **Inspectors shall carefully inspect every boiler used or proposed to be used** in this state for steaming, hot-water heating purposes, or hot-water supply, including all attachments and connections, at least **once annually** and any other time as deemed necessary by an inspector or the director. Section 9-4-103(4), C.R.S. (Emphasis added.)
>
> There shall be paid for the issuance of a certificate of boiler or pressure vessel inspection of each individual boiler or pressure vessel, regardless of how it is joined or connected, according to the provisions of this article by the owner or user of said boiler or pressure vessel, such fees as shall be established by the director of the division of labor by rule; except that such fees shall not exceed the amount necessary to accumulate and maintain in the boiler inspection fund a reserve sufficient to defray the division's administrative expenses for a period of two months, and **in no event shall the said fees exceed forty dollars per inspection. Such fee set shall be a uniform fee** to be paid by the owner or user of said boiler or pressure vessel. **The division will not charge any expenses for annual inspections in addition to the forty-dollar fee.** Section 9-4-109(1)(a), C.R.S. (Emphasis added.)

Colorado's uniform requirement includes the need to inspect all 22,130 active lower-risk boilers at double the frequency recommended by the National Board, thus unnecessarily consuming state and insurance inspector resources. Other effects of the current law are:

- The delay of certificate inspections due to reported resource insufficiencies such that 614 (4.2 percent) of inspections to be done by state inspectors and 2336 (14.9 percent) of insurance company inspections were past due at the end of Calendar Year 1998.

- Lack of timely annual inspection of 196 (5.4 percent) out of 3636 active higher-risk boilers by state inspectors and 733 (15.7 percent) out of 4660 active higher-risk boilers by insurance inspectors.

- Loss of $29,868 in revenue because BIS prorates fees when an inspection is past due.

If Colorado's laws were changed, certificate inspections would have to be staggered for a period of time following implementation of a biennial inspection schedule in order to level inspectors' annual workload. However, by adopting the National

Board's recommended routine regularly scheduled biennial inspections for 22,130 active lower risk boilers and annual inspections for 8,296 active higher-risk boilers, BIS could do the following:

- Reduce total required annual certificate inspections as shown below:

	Inspections Currently Required	Inspections Required if Recommendation Is Adopted	% Decrease
BIS	14,751	9,301	36.9
Insurance Companies	15,675	10,060	35.8
Total	30,426	19,361	36.4 (Average)

Source: Office of the State Auditor analysis of BIAS database as of mid-December 1998.

BIS could also:

- Eliminate the need for the two boiler inspectors that BIS requested in the Fiscal Year 2000 budget request, and was granted in the 1999 Long Bill, saving almost $100,000 in annual salaries and operating expenses in future years. In addition, we estimate that the resulting inspector workload decrease would allow BIS to perform all certificate inspections on time using as few as six or seven state inspectors, depending on drive time and the need for internal inspections, instead of the current eight or the authorized ten. This could save BIS an additional $50,000 to $100,000 in annual salaries and operating expenses.

- Eliminate the current and future need to raise most annual certificate inspection fees to save customers $8 for each certificate inspection performed, totaling about $243,400.

- Maintain its statutory authority to inspect any boiler at "any other time as deemed necessary by an inspector or the director" for emergency safety purposes.

BIS's future actual costs and anticipated boiler customer certificate inspection fees could be lowered while boiler safety is increased if statutes are amended to adopt the National Board's recommended biennial certificate inspection frequencies for lower-risk boilers and if fees are annualized to retain the maximum $40 fee for an annual inspection and double the fee to $80 for a biennial inspection.

Recommendation No. 8:

The Department of Labor and Employment Executive Director and Division of Labor management should:

a. Propose to the General Assembly amendment of Section 9-4-103(4), C.R.S., allowing BIS to adopt the National Board of Boiler and Pressure Vessel Inspectors' recommendations to perform biennial certificate inspections on large utility steam boilers, domestic-type boilers, and hot water heating/supply boilers which do not require internal inspections.

b. Propose to the General Assembly amendment of Section 9-4-109(1)(a), C.R.S., allowing an $80 maximum fee for biennial certificate inspections while maintaining the current $40 maximum fee for annual certificate inspections.

Department of Labor and Employment/Division of Labor Response:

Disagree

a) The National Board of Boiler and Pressure Vessel Inspectors have not influenced Colorado law as the state does not regulate boiler operator licensing and maintenance standards as the national board recommends. However, the Department will be requesting legislation in the 2000 session to change the current state statute requiring inspection on an annual basis. Because of the boiler statute, the boiler information system has not needed to keep information regarding type, size, and usage which will determine a safe frequency of inspection based on a risk based approach. October 1999, BIS will begin to collect the above data through inspection and verification. Collection of the data will be completed in October 2000. A risk based inspection system could then be implemented.

b) Boiler owners should not pay twice as much for a biennial inspection. The department will request a fee change.

Not All Boilers Require Certificate Inspections

BIS had about 38,000 boilers recorded in its BIAS database at the end of Calendar Year 1998. BIS policy requires all of these boilers to be inspected and reports their status in the Department's annual budget request to the Joint Budget Committee (JBC).

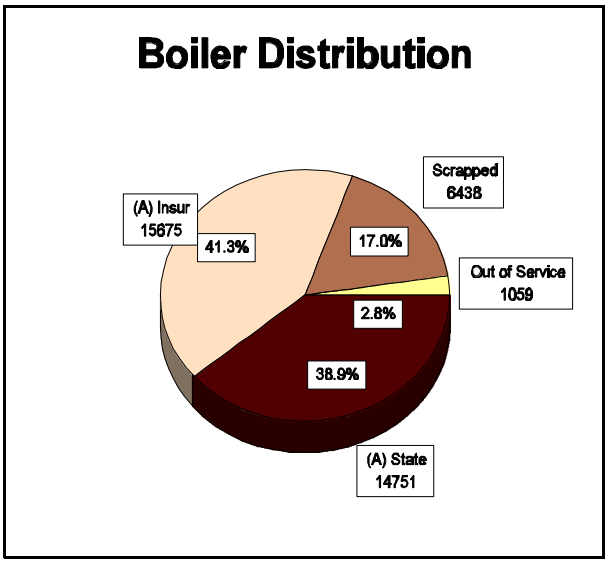
All boilers are classified into one of three categories (referred to as the "status") and inspected under BIS's authority by a state or insurance company inspector. The status and proportionate share of the 37,923 boilers recorded in the BIAS system at the end of Calendar Year 1998 is shown below:

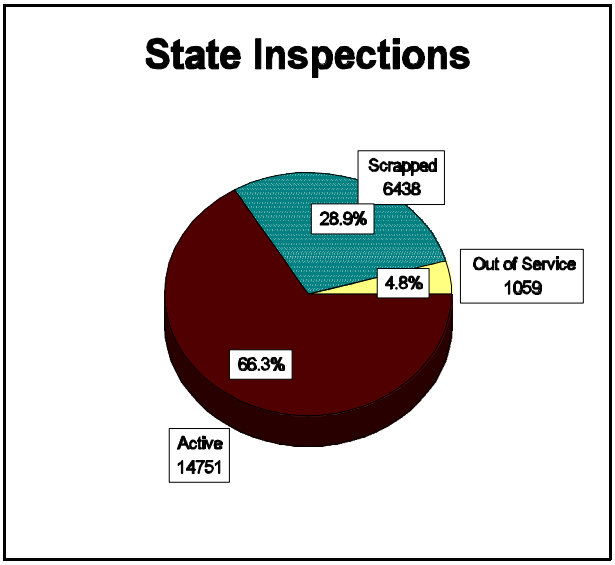
- 30,426 (80.2 percent) boilers that are currently in use are "active" (A).

- 1,059 (2.8 percent) boilers that are removed from service, but remain in their original location, are classified as "out of service" (O).

- 6,438 (17 percent) boilers that are removed from service, and removed from their original location, are classified as "scrapped (S)."

State inspectors are required by BIS policy to inspect all boilers regardless of status. Statutes limit insurance inspectors to inspecting insured boilers. Both BIS and insurance companies report that only active boilers are insured and that insurance companies do not perform annual inspections of out-of-service (O) or scrapped (S) boilers. This means that about 7,497 (33.7 percent) of the 22,248 boilers that BIS' reported policy requires state employees to inspect and reports as workload, are inactive boilers that BIS' records classify as scrapped (S) or out of service (O), as shown by the following charts:





Source: Office of the State Auditor analysis of BIAS database as of mid-December 1998.

BIS management reports that its inspections of these 7,497 out-of-service and scrapped boilers:

- Do not generate any inspection fee revenues.
- Can take about the same amount of time to inspect as active boilers. They are checked to ensure that they remain inactive.
- Are not always documented in BIS's boiler records or on state inspectors' time sheets (about 32 percent of boilers classified as out of service or scrapped had Calendar Year 1998 inspection dates).
- Have no inspector checklist, documented inspection criteria, or BIS policy guidance.
- Are performed only when they are in locations with an active (A) boiler. To avoid unnecessary drive time, inspectors do not make isolated trips to these boilers. (Our sample of four inspectors' Calendar Year 1998 records showed that about 3.3 percent of their recorded inspections were of isolated boilers

designated in the previous year as out of service (2.2 percent) or scrapped (1.1 percent)).

BIS cannot change a fee for these inspections because statutes do not require annual inspection of out-of-service and scrapped boilers since they are not "used or proposed to be used" and do not need a certificate of inspection. The statute says:

> Inspectors shall carefully inspect **every boiler used or proposed to be used** in this state for steaming, hot-water heating purposes, or hot-water supply, including all attachments and connections, at least once annually and any other time as deemed necessary by an inspector or the director. Section 9-4-103(4), C.R.S. (Emphasis added.)

Neither the National Board nor the insurers of 75 percent of the State's insured boilers have recommendations or policies addressing the inspection of out-of-service or scrapped boilers.

Lack of time records pertaining to out-of-service and scrapped boiler inspections makes it impossible to ascertain the time spent or the cost of BIS's current inspection policy, yet BIS reports in budget documents that:

- It lacks the resources needed to meet its statutory active and new boiler certificate inspection obligations.

- "State inspectors have no extra time to coordinate past due inspections" (2,950 active boilers, including insured boilers, were past due for inspection at the end of Calendar Year 1998).

Instead of inspecting any inactive boilers, BIS could have spent its resources performing certificate inspections on past due active boilers, thereby reducing past due certificate inspections, and collecting some portion of $29,868 in forgone prorated annual certificate inspection fees.

BIS could apply more resources to activities required by statutes by inspecting only active boilers, (those which are being used or proposed to be used).

Recommendation No. 9:

The Department of Labor and Employment Executive Director and Division of Labor management should require that BIS:

a. Concentrate its resources on activities required by statute by inspecting only active boilers, (those which are being used or proposed to be used).

b. Refrain from reporting these inspections as if they are part of its required workload.

Department of Labor and Employment/Division of Labor Response:

Disagree.

a) An out of service boiler is one that is installed but not operating due to water, electrical and/or gas being disconnected. This disconnected boiler can be placed back in service with minimal effort at any time an owner deems necessary. Because of this, it is vital that any boiler removed from service for any length of time be inspected because of the detrimental effects caused from shutdown (corrosion, mineral deposits, sludge, scale.)

A scrapped boiler is one that is removed from the original location and is never routinely inspected by BIS unless it is reinstalled elsewhere. In calendar year 1998, 1,857 boilers were verified by state or insurance inspectors as scrapped when they originally intended to do an inspection.

b) Boilers previously scrapped will no longer be included in data submitted to the JBC with the FY 00/01 budget request.

Most Deficiencies Are Corrected by Owners

All active boilers in the State are required to have an annual certificate inspection. If no deficiencies are found during this inspection, the boiler owner pays a fee, and BIS issues a certificate of inspection for the boiler. When deficiencies are found, BIS's **Boiler Inspection Requirement Codes** list 266 separate deficiency codes that are used by inspectors to cite the deficiencies found. BIS distinguishes between deficiencies that result in either a "red tag" or a "green sheet" and has a separate policy addressing each.

Some deficiencies allow an inspector to "red tag" or shut down a boiler:

> If at any time an inspector finds a boiler or pressure vessel which, according to the Colorado boiler and pressure vessel code, is unsafe after inspection of same, he shall condemn and forbid its future use until satisfactory repairs are made or said boiler is replaced. Section 9-4-105(3), C.R.S.

A "red-tag" violation as cited in BIS's **Requirement Codes** is:

> **R-T1 Red Tagged**
> Boiler has been "red tagged" by a state or commissioned [insurance] boiler inspector. Boiler cannot be used until repairs are made & it has been re-inspected. If replaced, new unit will require inspection.

Annual certificate inspections identified the need to "red tag" 73 (0.3 percent) boilers of 28,500 inspected in Calendar Year 1997 and 63 (0.2 percent) of 27,300 boilers inspected in Calendar Year 1998. Although BIS must reinspect red-tagged boilers, statutes prohibit charging a fee for the extra costs they expend for these reinspections.

Most deficiencies identified by routine annual certificate inspection are not "red tag" deficiencies. They are less severe and mean that a boiler is safe enough to continue operating. These deficiencies cause the inspector to give the owner a "Notice of Requirements" report, (Green Sheet) citing one or more of 265 possible violations. Examples of such violations and citations from BIS's **Requirement Codes** are:

> **B-1 VALID CERTIFICATE**
> A valid certificate authorizing continued use of the boiler is not posted in a readily visible location in the boiler room. Obtain and post a valid certificate.
>
> **S-4B LEAKING, RV**
> The relief valve is leaking at the disc seat. Replace this valve with an NB rated ASME stamped relief valve with set pressure not more than or a capacity not less than ASME code mandates.
>
> **Q-5 CLEAN BOILER AREA**
> This is the 2nd year you have not corrected the condition of your boiler area. Any owner who fails to comply with boiler statutes faces the eventuality of having the boiler shut down. You have 45 days to comply.
>
> **T-9 DIAPHRAGM RUPTURED**
> The gas pressure regulator diaphragm for the burner is ruptured. Repair or replace diaphragm control device.

It is the owner's responsibility to correct these deficiencies within 45 days, sign the "Green Sheet" to certify that the deficiencies have been corrected, and send it to BIS, which then issues a certificate of inspection and mails it to the owner. Corrections certified by owners are usually verified by inspectors during the next annual certificate inspection. If the cited corrections have not been made as certified by the owner, the inspector can "red tag" the boiler if its continued operation is unsafe, or the inspector can give the owner another "Green Sheet" citing "failure to repair the boiler" as a deficiency.

BIS's records show that owners have historically corrected about 90 percent of deficient boilers by fiscal year-end and have been issued certificates of inspection. However, BIS reports in the Department of Labor and Employment (DLE) Fiscal Year 2000 budget request that the number of corrected deficiencies in Fiscal Year 1998 had fallen to 57 percent as shown in the following chart:

Deficiencies/Defects						
	FY 95 Actual	**FY 96 Actual**	**FY 97 Actual**	**FY 98 Actual**	**FY 99 Estimate**	**FY 00 Request w/D.I.**
"Boiler inspections billed"	27,173	28,108	29,035	28,328	28,500	33,000
"Boilers found to have deficiencies"	4,689	4,858	3,995	3,573	3,400	4,100
"% of defective boilers corrected"	93%	95%	92%	57%	40%	100%
Source: DLE Budget Requests for Fiscal Years 1998 and 2000.						

BIS also reported that:

> State inspectors have no extra time to coordinate past due inspections and/or reinspect boilers that are defective.

In response to the decline in deficiency corrections, the DLE Fiscal Year 2000 budget requests two additional boiler inspectors, whose jobs in part will be to achieve BIS's objective to "reinspect deficient boilers." This new objective was not part of any previous year's budget request.

We reviewed BIS records to find out:

- Why owners were no longer correcting boilers found deficient during Fiscal Year 1998 at rates reported at the end of prior fiscal years.

- If the correction rate would continue to decline from 57 percent in Fiscal Year 1998 to BIS's estimate of 40 percent in Fiscal Year 1999.

We found that the correction rate of 57 percent reported at the end of Fiscal Year 1998 had by April 1, 1999, increased to 85 percent for the same group of boilers.

The 85 percent correction rate approaches expected rates based on prior years' experience. The higher correction rate was achieved by boiler owners without additional BIS resources for "reinspection of deficient boilers."

BIS could avoid the hiring of more boiler inspectors currently and in the future to follow up on deficiencies that have not resulted in "red tags" and avoid having to raise certificate inspection fees to pay the costs of their salaries and travel by:

- Continuing to rely on boiler owners to make and self-report deficiency corrections.

- Enforcing statutory requirements and regulations regarding safety and BIS policy regarding boiler correction time limits.

- Developing a fee to offset the cost of reinspecting "red-tagged" boilers and proposing to the General Assembly an amendment to Section 9-4-109, C.R.S., allowing the creation of such a fee.

Recommendation No. 10:

The Department of Labor and Employment Executive Director and Division of Labor management should reduce the possibility of increasing future certificate inspection fees and the cost of providing certificate inspections by:

a. Continuing to rely on boiler owners to correct boiler deficiencies and report those corrections to BIS.

b. Enforcing its policy regarding deficiency correction time limits, including the provision that allows inspectors to red tag deficient boilers that are not corrected within the specified time limits.

c. Proposing to the General Assembly an amendment to Section 9-4-109, C.R.S., allowing BIS to develop and charge a fee to offset the cost of reinspecting boilers that have been red-tagged.

Department of Labor and Employment/Division of Labor Response:

Agree.

a) BIS agrees to continue to rely on boiler owners to correct boiler deficiencies and report corrections to BIS. The average percentage of boiler deficiencies not corrected range from 10-15%, which equates to 500-650 boiler deficiencies not verified as corrected past the 45-day time limit.

b) BIS agrees to enforce statute requirements by reinspecting the 10-15% owners that do not correct deficiencies within the time frame allotted. This will necessitate two additional site visits; one to red tag, one to remove red tag, neither of which will generate revenue until a statute change as recommended in c) below is enacted.

c) BIS agrees that a fee should be charged to the owner for any reason a boiler requires re-inspection. BIS will propose this change to the 2000 legislative session.

Boiler Disconnections

A boiler is classified "out of service" (O) after it is properly disconnected and capped off from power, water and gas sources, but remains at its original location.

BIS records show that about 1,100 boilers were removed from "active" (A) status and reclassified to "out-of-service" (O) status in Fiscal Year 1998. About 81 (7 percent) of these were insured and 1,019 (93 percent) were the responsibility of state inspectors.

State inspectors traveled about 163,000 miles in Fiscal Year 1998 to perform about 15,000 scheduled certificate inspections of boilers that BIS records classified as "active" (A). Each of these certificate inspections should have generated a $22 fee. However, BIS could not recover certificate of inspection fees, totaling about $22,400, for 1,019 (6.8 percent) of these boilers because when state inspectors traveled to the boiler site, they found the boiler to be disconnected from service. According to Section 9-4-103(4), C.R.S., these boilers are ineligible for a certificate of inspection or a fee. BIS management reports that these unreimbursed attempted certificate inspections happen because while State inspectors try to coordinate inspections with

owners, they "almost always" learn that a boiler has been disconnected only after they go to a site to perform the scheduled certificate inspection. This also contributed to the delay of timely inspection of new boilers.

The City and County of Denver has been delegated authority by BIS to inspect all 9,000 boilers within its jurisdiction, based on statutes and industry standards using its own rules and fee schedule. The city's policy requires owners to notify them when a boiler is to be taken out of service. Denver inspectors then inspect the boiler to make sure that it has been properly disconnected, and charge a fee similar to their certificate inspection fee. If a boiler is found to be disconnected without notification, they inspect the boiler for proper disconnection, and charge a fee equal to the certificate inspection fee. In either case, they receive a service fee and verify that the boiler has been properly disconnected, or tell the owner what needs to be corrected before the boiler is classified as "out of service" and removed from Denver's certificate inspection schedule.

Although BIS management and industry agree that it is important to properly remove a boiler from active service or safety could be compromised, sometimes boilers are improperly disconnected. However, BIS's **Requirement Codes** checklist does not require state inspectors to determine and document that a boiler has been properly disconnected before it is reclassified and entered in the BIAS database as "out of service" (O).

BIS rules do not require owner notification or inspector documentation of a proper disconnection before a boiler is classified as "out of service" (O), and statutes (Section 9-4-109, C.R.S.) prohibit BIS from charging a disconnection inspection fee.

Safety could be improved if BIS required state inspectors to determine if boilers have been disconnected properly and document such on BIS's **Requirement Codes** checklist prior to designating it "out of service" in its records. We also think that inspection-scheduling efficiency and resource allocation could be improved by requiring owners to provide BIS disconnection notification and to pay a disconnection inspection fee.

Recommendation No. 11:

The Department of Labor and Employment Executive Director and Division of Labor management should improve boiler safety, inspection efficiency, and resource allocation by:

a. Developing and implementing rules and regulations addressing the proper procedures for disconnecting a boiler.

b. Requiring owners to provide written notification to BIS of their intention to disconnect a boiler.

c. Ensuring that boiler inspectors verify and document a safe disconnection before the boiler is classified "out of service" (O) and no longer eligible for routine certificate inspection.

d. Proposing to the General Assembly an amendment to Section 9-4-109, C.R.S., to provide for a disconnection inspection fee.

Department of Labor and Employment/Division of Labor Response:

Agree. Many of the boilers taken out of service are for short periods of time. The Department does not want to be in the position of placing owners in the position of having to report disconnecting a boiler and two to three months later having to report reconnecting (installing) the same boiler. We do agree with the need to ensure that boilers are safely disconnected.

Therefore, we will propose legislation in the 2000 session which will mandate owner notification of a disconnection if the boiler will remain disconnected for an established number of months. We will also include a mandate for the Division of Labor to promulgate rules and regulations addressing procedures for safely disconnecting a boiler and a mandatory inspection of the disconnected boiler. We will also propose that a disconnection inspection fee be allowed in statute.

Some Boiler Owners Continue to Subsidize Others

The annual certificate inspection of active boilers required by statute can be performed either by state inspectors or by special (insurance company) inspectors commissioned by BIS. A certificate of inspection is issued after a boiler is inspected, found to be in compliance, and a fee is paid to BIS. This fee can change from year to year:

FY 95-96	FY 96-97	FY 97-98	FY 98-99	FY 99-00
$18	$31	$22	$22	$30

All owners of active boilers pay the same fee as required by statute:

> There shall be paid for the issuance of a certificate of boiler or pressure vessel inspection of each individual boiler or pressure vessel, regardless of how it is joined or connected, according to the provisions of this article by the owner or user of said boiler or pressure vessel, such fees as shall be established by the director of the division of labor by rule; except that such fees shall not exceed the amount necessary to accumulate and maintain in the boiler inspection fund a reserve sufficient to defray the division's administrative expenses for a period of two months, and in no event shall the said fees exceed forty dollars per inspection. Such fees set shall be a uniform fee to be paid by the owner or user of said boiler or pressure vessel. The division will not charge any expenses for annual inspections in addition to the forty-dollar fee. Section 9-4-109 (1)(a), C.R.S.

Requiring all owners to pay the same fee regardless of whether or not they have paid for boiler insurance means that in Calendar Year 1998:

- Owners of 12,723 boilers paid for insurance, got inspected by an insurance inspector, and yet were required to pay BIS the entire $22 fee for the certificate of inspection.

- Owners of 14,580 uninsured boilers got an inspection from a state employee, a certificate, and paid BIS the same $22 fee.

Charging the same fee regardless of services rendered has been addressed in the National Board's 1998 Recommended Boiler and Pressure Vessel Safety Legislation as follows:

> Special [insurance company] inspectors shall inspect all boilers, pressure vessels and nuclear components insured by their respective authorized inspection organization. **All boilers, pressure vessels and nuclear components, when so inspected, shall be exempt from the payment to the State for inspection fees.** Special inspectors may conduct shop or field inspections of new boilers, pressure vessels or nuclear components in accordance with the applicable ASME Code requirements...**The Board shall establish fees for inspection certificates, certificate inspections**, shop inspections, inspections of secondhand or used boilers, pressure vessels or

> nuclear components and special inspections made by the Chief Inspector or his/her deputy... (Emphasis added.)

BIS could split the $30 annual fee into a $15 inspection fee and a $15 certificate fee and double these fees for biennial inspections and certificates. If BIS simply reduces certificate fees for insured boilers and continues to inspect all boilers annually, fees to owners whose boilers receive an actual inspection from a state employee could increase. However, if the fund reserve is sufficient and BIS also adopts recommendation one of this report by changing the certificate inspection frequency, changing certificate fees, and lowering expenditures to match revenue, fees to owners whose boilers are actually inspected by state employees could remain at current levels.

Implementing separate inspection and certificate fees could save insured boiler owners about $235,125 per year without increasing fees for uninsured boiler owners.

BIS could come into compliance with recommended industry standards by establishing a certificate fee that benefits all owners, separate from an inspection fee, and charge owners/users accordingly.

Recommendation No. 12:

The Department of Labor and Employment Executive Director and Division of Labor management should consider coming into compliance with National Board recommendations by working with the General Assembly to determine if BIS should split the fee it currently charges into two parts — one for the issuance of a certificate of inspection and one for the actual inspection.

Department of Labor and Employment/Division of Labor Response:

Disagree. We think that the recommendation is too selective. For some time we have been concerned about groups of owners subsidizing other owners. We will investigate a multiple rate structure that is expanded from insured/non-insured, as proposed, to one that includes size differences, differences between high & low pressure and the complexity of the inspection (internal vs. external) to more fully ensure equity. Any multiple rate structure must include a fee to insurance companies for past due inspections performed by a State Inspector. We will propose that the Legislature change the statute to enable the Division of Labor to establish multiple rates by rule.

We do not think it prudent to implement a multiple inspection rate structure until the impact on revenue from the implementation of biennial inspections (recommendation #8) and the re-inspection fee (recommendation #10) is available. The statutory limitations of C.R.S. 9-4-109(1)(a) require that the fund balance be maintained at or below a specific level. The impact of implementing a lesser number of annual inspections while adding two additional types of inspections. It is imperative that the revenue into the fund be stabilized before implementing a multiple rate structure.

Representations Made to the JBC Still Need Improvement

The DLE annual budget request includes performance effectiveness, efficiency, and workload measures reported by BIS to support its current and anticipated resource needs. According to Joint Budget Committee (JBC) staff, it is the intent of the JBC to use performance indicators to assist in making future funding decisions. Our last audit found that BIS reported completing 4,396 (16 percent) more inspections in Fiscal Year 1995 than its own records showed.

We reviewed various performance indicators BIS reported in the Fiscal Year 2000 budget request and found that confusing discrepancies and inaccuracies continue.

The first example is that statutes require all newly installed active boilers to be inspected by state personnel who then issue each one a new serial number. BIS reported 1,957 newly installed boilers in Fiscal Year 1998. About half of these newly installed boilers will not add to the ongoing workload of state inspectors because they are insured and will be added to annual workload for insurance inspectors. Then, BIS apparently included this newly installed boiler workload in the reported growing total number of boilers requiring an inspection by either state or insurance personnel. The BIAS system does not archive boiler status information over multiple years. So, to determine the effects of state growth on annual boiler inspection workload, we compared verified boiler records from the last audit with verified numbers from a point during this audit as shown by the chart:

Total Number of Boilers Requiring Inspection per BIS Policy					
			Total Increase		Annualized Increase
	May-96	Dec-98	No.	%	No.
Total	32,398	37,923	5,525	17%	2,210
Active	29,735	30,426	691	2%	276
Out of Service & Scraped	2,663	7,497	4,834	182%	1,934
Source: Office of the State Auditor analysis of BIAS database.					

The comparison shows that total boiler records in the BIAS system increased about 2,000 annually. However, about 4,834 out of 5,525 (87.5 percent) of these were boilers that had been taken out of service (disconnected) or scrapped (disconnected and removed). The only boilers that require a regular certificate inspection, active boilers, grew by just 2 percent, or 276 per year. Dividing this increased annual workload evenly between state and insurance companies means that the workload of each of the State's eight inspectors' has increased by about 17 boilers per year, or about 1.4 per month. To deal with this and other growth-related issues, BIS asked for and received funding for two additional boiler inspectors, a 25 percent increase, thus allowing BIS to grow from 8 to 10 boiler inspection territories.

The misleading boiler workload reporting results because BIAS does not allow out-of-service and scrapped boilers and their serial numbers to be edited/removed from the database. Consequently, BIS is actually reporting growth in the number of serial numbers recorded in BIAS. BIS does not report the net increase in active boilers when newly installed boilers with new serial numbers replace boilers that have been taken out of service (O) or scrapped (S). This distorts the performance indicators reported and used by the JBC to assist in future funding decisions.

The second example of unclear reporting in the Fiscal Year 2000 budget request is BIS's use of the terms "deficient boilers" and "defective" for two different performance indicators, which actually addressed the same problem and obscured the fact that most boiler deficiencies are corrected by owners.

The third example of a confusing performance indicator reported by BIS is:

	FY 96-97 Actual	FY 97-98 Actual	FY 98-99 Estimate	FY 99-00 Request
Average number of boilers inspected per state staff per year				
Target	2,275	2,425	2,650	2,500
Actual	2,384	2,332		

Source: Information as it appears in DLE's FY 99-00 Budget Request (emphasis added).

The reported ratio of state inspectors to inspections of active, out-of-service and scrapped boilers is inaccurate. For example, multiplying the Fiscal Year 1998 average of 2,332 inspections by eight state inspectors yields a total of 18,656 inspections. BIS records show 16,871 uninsured active and inactive boilers with Fiscal Year 1998 inspection dates. Each year an estimated 2000 new and replacement boilers are inspected by state and insurance inspectors, but BIAS records do not credit state inspectors for initial inspections of insured boilers. We used the current proportions of active boilers to add 51.5 percent or 1030 initial insured boiler inspections to the number of uninsured boilers with Fiscal Year 1998 inspection dates, thus increasing the total to 17,901. Therefore, BIS is reporting 755 more state inspections than their records can verity. This difference is equal to about three years of actual growth in active boilers at 276 per year.

Since reported performance indicators are used to assist management and legislative resource allocation decision making, indicators should be clear, consistent, and accurate.

Recommendation No. 13:

The Department of Labor and Employment Executive Director and Division of Labor management should ensure that BIS performance indicators reported in budget requests are clear, consistent, and accurate including:

a. Reporting routine annual inspection requirements only in terms of active boilers requiring annual or biennial certificate inspections by state and insurance inspectors.

b. Reporting net annual growth in active boilers requiring certificate inspections separately from new installations and new serial numbers.

c. Using terms such as "deficiency" consistently and reporting the number/proportion of deficiencies corrected by owners and the number of deficient boilers resulting in "red tags" and requiring reinspection.

Department of Labor and Employment/Division of Labor Response:

Disagree.

a) It is BIS's policy to inspect Out of Service boilers as described in our response to Audit recommendation #9. Therefore BIS will continue to report active and out of service boilers as workload. The FY00/01 budget request will be submitted to reflect boiler counts that exclude scrapped boilers.

b) BIS presently does not have a mechanism to provide a separate report based on growth as the computer system tracks all boilers by serial number. BIS will explore the ability to track growth separately from replacements with the installation of its new system scheduled for completion by June 30, 2001.

c) BIS will agree to change the word defective to deficient for consistency purposes. The current computer system is not programmed to separate deficiencies between red and green tags. This will be rectified with the installation of the new system, estimated completion date June 30, 2001.

Explosives Section

Chapter 3

Background

The Public Safety Explosives Section (the Section) is authorized by the "Explosives Act." The purpose of the act is to:

> ...provide for safety inspections to assure suitable control of the procurement of and access to explosives, and at the same time to avoid undue limitations upon the manufacture, sale, transport, or legitimate use of explosives.... Section 9-7-102, C.R.S.

To avoid regulatory duplication, fireworks, explosives used in mining, and explosives transported on public roads are excluded from the Section's oversight.

The Section issues permits to applicants, and performs inspections to ensure compliance with the provisions of the Act. To obtain an explosives permit, applicants must complete an application and have it notarized, take the application to a local Sheriff's Department for a background check, pay a $25 application fee, and pass a general knowledge examination.

Findings

We reviewed the Explosives Section's policies, procedures, and activities in comparison to statutory requirements, other states, and industry standards. We found that the Explosives Section should:

- Propose statutory changes that authorize a three-year explosives permit to replace the current one-year explosives permit.

- Improve controls and security over explosives storage.

Annual Renewals of Explosives Permits May Not Be Necessary

The Public Safety Explosives Section issues permits valid for one calendar year for a fee of $25 to explosives users, purchasers, vendors, manufacturers, and transporters. Initial permits are granted after applicants are investigated and tested by the Section. Permits not previously revoked or suspended can be renewed annually upon payment of the $25 fee. The Section tests permit renewal applicants every three years to verify their qualifications to handle explosives. The Section has one Safety Specialist who issues about 900 permits (800 renewal, 100 new) annually.

Section records show that in Calendar Year 1998, permits were issued to applicants in the following 21 business types/activities:

Distributor	Water	Well
Demolition	Seismic	Law
Government	Telephone	Mining
Manufacturing	Ranching	Logging
Agribusiness	Avalanche	Power
Excavation	Highways	Other
Hazardous	Research	Construction*

*Construction permits constituted about 36 percent of permits issued in Calendar Year 1998.

DLE/DOL reports in its Fiscal Year 2000 budget request that:

> An administrative assistant is needed in the Public Safety and Inspections office to handle the office duties currently being performed by the Explosives Public Safety Specialist. Due to the serious, increasing number of explosives violations in the state, the Public Safety Specialist must conduct field inspections and closely monitor explosives permit users to ensure public safety and compliance with state statutes. With the additional workload in Boiler Inspection and the School Inspection program, the Administrative Assistant will assist that staff with required duties and responsibilities as well.

The annual renewal of about 800 explosives permits needlessly consumes the administrative resources of the Section and the time resources of its permit customers because:

- Permit holders' qualifications are tested every three years, so the annual permit requirement is of limited value in the verification of user qualifications.

- Statutes provide a process for DOL to revoke or suspend any permit, at any time for cause.

The Section could eliminate the administrative cost and customer inconvenience of issuing about 1,600 (59 percent) of all renewed permits every three years by issuing a three-year permit. Current revenue could be maintained with no fee increase by charging a $75 fee for three years instead of the current $25 one-year fee. In order to level administrative workload, issuance of permit renewals could be staggered for a period of time following implementation.

However, statutes do not authorize a three-year permit or fee:

> **Issuance of permit - renewal.** Permits issued under this article shall be valid for the calendar year after the date of issue unless sooner revoked or suspended. Permits may be renewed on each anniversary date upon the payment of the required fee of twenty-five dollars. Section 9-7-108, C.R.S.

The Public Safety Explosives Section could lower its administrative costs, increase customer convenience, and reallocate resources to higher-priority activities by recommending statute changes to Section 9-7-108, C.R.S., as necessary. This would reduce or eliminate the current or future need for an additional one-half of an administrative FTE (costing about $14,500 annually) requested in the Fiscal Year 2000 budget request while maintaining the current annualized $25 permit fee.

Recommendation No. 14:

The Department of Labor and Employment Executive Director and Division of Labor management should propose statute changes to the General Assembly to decrease Public Safety Explosives Section administrative costs and increase customer convenience by:

a. Authorizing a three-year explosives permit.

b. Converting the current $25 per year fee to a $75 three-year fee.

c. Staggering inspections and issuance of permits to maintain a level annual workload.

Department of Labor and Employment/Division of Labor Response:

Partially agree. Public safety disagrees that the recommendations could eliminate the administrative cost of issuing 1600 renewal permits every three years by issuing a three year permit. Our internal audit indicates that in 1999, only 652 (75%) of issued permits were renewal permits. Therefore, a three-year permit renewal interval would eliminate the processing of approximately 1300 renewal applications; not the 1600 reported by the auditor. The number of applications processed y early would only be reduced by approximately 50 percent under three-year renewal system.

a) The department will propose this change to the 2000 legislative session.
b) The department will propose this change to the 2000 legislative session.
c) Public Safety agrees and will begin to stagger the issuance of permit renewals upon legislative approval of a three-year explosive permit.

Control and Security of Explosives Storage Could Be Improved

The Bureau of Alcohol Tobacco and Firearms (ATF) has notified the Explosives Section that in 1997, 1,912 blasting detonators were stolen within this state. This is the largest amount reported stolen from any of the 50 states. The next highest state was Oklahoma, which had 438. Subsequent field inspections by the Section's Public Safety Specialist found that 50 percent of the explosives storage facilities inspected lacked statutorily mandated explosives inventories or had inaccurate inventories.

Explosives are stored or inventoried in permanent and portable magazines and day boxes. Permanent magazines are constructed on a foundation. Portable magazines are usually stationary, but can be moved using heavy equipment. There are about 2,000 permanent and portable magazines at about 300 sites in Colorado. Section rules and regulations and industry standards specify storage magazine requirements, including siting, construction, and proximity to other magazines, based on the amount and types of explosives stored.

The Section reports that poor security and controls over stored explosives is the main cause of thefts and unaccounted inventory.

Part of the problem may be that the DOL Explosives Section does not regulate magazines used to secure and control explosives by permit. Statutes regulate individuals, not the storage magazines:

> **Explosives permits**. (1) It is a violation of this article to manufacture, sell, store, transport, or use explosives without first obtaining from the division a permit. (2) Permits issued under this article shall not be transferable, and shall be readily available for inspection by representatives of the division and law enforcement officials. Section 9-7-106, C.R.S.

The holders of explosives permits turn over at a rate of about 10 percent a year and may not be the owners or custodians of storage magazines, thus diminishing control, accountability, and security of stored explosives.

The State of Washington addresses security and control problems that can result from stored explosives by regulating the operation of magazines by statute as follows:

> All explosives or blasting agents as defined in this chapter shall be kept or stored in magazines licensed by the department and which comply with the construction, location, and security requirements established by this chapter.
>
> Any person engaged in keeping or storing explosives or blasting agents shall make application to the department for an operating license for each storage magazine before engaging in the activity of keeping or storing explosives or blasting agents.

The section could analyze the potential costs and benefits of regulating permanent and portable magazines through the State's existing explosive permitting process as a way to increase security and controls over stored explosives.

Recommendation No. 15:

The Department of Labor and Employment Executive Director and Division of Labor management should:

a. Consider the potential costs and benefits of securing and controlling stored explosives through the regulating and permitting of permanent and portable magazines.

b. Propose statutory amendments to the General Assembly as necessary.

Department of Labor and Employment/Division of Labor Response:

Agree.

a) Public Safety has already written proposed regulations that would include the issuance of a separate permit for explosives storage sites. The number of reported storage sites within the state at this time is 277 with 142 sites located outside a 150-mile radius of Denver and 135 within 150 miles of Denver. The expense of implementing this recommendation could be covered by the additional fees charged for the storage permit.

b) The current statutes provide for the issuance of permits for the manufacture, sale, storage, transportation, and use of explosives.

Follow-Up on 1996 Audit Recommendations

Chapter 4

Background

In 1996 the Office of the State Auditor conducted a performance audit of the Oil and Boiler Inspection Sections, Division of Labor (DOL), Department of Labor and Employment (DLE). We asked the Director of the Division of Labor to provide the Office of the State Auditor with a formal response regarding each of the audit's 17 recommendations, including:

- The implementation status of the recommendation.
- Any documentation that demonstrates that the recommendation has been fully or partially implemented.
- The planned implementation date of any recommendation not yet implemented, or reason why a recommendation has not or will not be implemented.

A summary of progress in implementing 1996 audit recommendations as of December 22, 1998, is shown in the following chart:

1996 DLE/DOL Oil and Boiler Inspection Sections Performance Audit	Total
Implemented	1
Partially Implemented	3
Not Implemented	10
Disagreed	3
No Longer Applicable	0
Total	**17**

On the basis of our current review:

- We have renewed some recommendations agreed to by DLE/DOL that have not been implemented.

- We have also re-recommended some recommendations DLE/DOL previously disagreed with.

Each recommendation from the 1996 audit is prefaced with an explanation of the issue, followed by the Division's 1996 response, and its most recent 1999 formal response to our implementation status request. Finally, we have included our assessment of the recommendation implementation status.

All Fuel Dispensers Are Inspected at the Same Frequency Regardless of Risks

The Oil Inspection Section (OIS) spent about $335,000 of General Funds in Calendar Year 1995 inspecting 36,902 wholesale and retail fuel pump/dispensers. In 1995 OIS reported that 32,797, or 89 percent of retail service station dispensers inspected were within state standards and 4,105, or 11 percent failed and required calibration. When Colorado reduced inspection frequency 50 percent in 1993 by changing from a six-month to an annual inspection frequency, no material degradation in dispenser accuracy was projected before the change or documented afterwards.

On the basis of other states' inspection programs, we thought inspecting higher-risk dispensers (those with previous failures) annually and lower-risk dispensers every three years could reduce inspections and costs by 59 percent without risking a decline in pump accuracy.

Recommendation No. 1:

The Oil Inspection Section should develop a risk-based inspection schedule for all service station pumps/dispensers it regulates, decrease and increase inspection frequencies as applicable, and change its rules and regulations accordingly.

1996 Oil Inspection Section ResponseSImplementation Date 10/1/96:

Partially agree. The department agrees with the concept of a risk-based approach to service station meter inspections and implemented that sort of approach in 1993 when it began reducing the frequency of service station inspections. The department does not agree with the financial findings described in the report, but is willing to test the concept. The Oil Inspection Section will design and implement a risk-based plan for inspecting service station meters. The plan will be tested in four oil inspectors' territories for a specified period of time. At the conclusion, we will determine what time savings was accomplished and what the impact was on meter accuracy. On the basis of those results, we will either implement a full-scale risk-based inspection plan; expand or adjust the test; or return to current inspection schedules.

The department strongly disputes the concept that a savings in meter inspection time translates into a savings in General Fund expenditures. Any savings in services, station meter inspection time actually translates into a reallocation of General Fund expenditures for other functions that are performed by oil inspectors.

As the report states, the Oil Inspection Section continues to search for ways to free Oil Inspectors' time to perform other necessary inspection functions such as propane bulk plants, unattended automated fueling facilities, commercial fueling facilities, storage tank installations, and closures. These duties have been historically performed and charged, at least in part, to the Highway Users Tax Fund and the General Fund. While all these activities may not have been reported in budget narratives for certain years, this does not mean that they were not

performed. In recent years instructions for listing activities in budget narratives have changed periodically.

All of the functions of the Oil Inspection Section described in Title 8, Article 20 (which was written more than 30 years ago, long before the underground storage tank laws) are to be funded from the Highway Users Tax Fund (8-20-105). The funding source was changed to the General Fund in 1995. These duties in part include enforcement of storage tank regulations concerning petroleum product quality; petroleum product measurement, calibration, and labeling; hazardous or dangerous conditions; and liquefied petroleum gas systems, equipment, product quality, measurement, and calibration. These have historically been funded out of the General Fund and should continue to be so.

1999 Division of Labor's Update on Implementation Status:

Oil Inspection partially agreed with this recommendation pending a test in parts of four oil inspector territories which included service station dispensers in thirty-eight zip code locations across the state. The test included inspections made during 1995, 1996, and 1997. The intent was to greatly reduce the number of dispenser inspections during the middle year to determine if it would impact the number of dispensers that would have to be adjusted in the third year. During 1995 our inspectors adjusted 7.2 percent of the dispensers inspected in the test areas, and in 1997 adjusted 6.6 percent of the dispensers inspected in the test areas. During 1996 most of these dispensers were not inspected.

We are not exactly sure what these reduced adjustments tell us, but we think that they are due in part to Recommendation No. 2 listed below. We also recognize there is a large number of new dispensers throughout the state. For the immediate future reduced service station dispenser inspections are a necessity due to other crucial responsibilities, such as inspections for compliance with the 1998 UST deadline. In the longer term, other activities, such as propane bulk plant inspections, above-ground storage tank inspections, commercial UST inspections, tank installation and closure inspections will inhibit our ability to inspect service station meters on an annual basis.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 1:

Not implemented - Our evaluation of OIS' test results indicates a 50 percent reduction in inspection resource costs with no negative effect in the test areas. In spite of these remarkable test results, OIS has not expanded this policy statewide and continues to allocate the time of its 12 inspectors to a "one size fits all" inspection policy reporting on December 31, 1998, that, "... our goal is to inspect each retail station every 12 months and each commercial site every 18 months." See current audit Recommendation No. 6.

Enforcing National Accuracy Standard Produces Cost Savings

The State was enforcing a standard that was twice as restrictive (+ or - 3 cubic inches per 5 gallons) as the National Institute of Standards and Technologies (NIST) recommends.

About 3,200, or 78 percent of the 4,105 dispensers that failed the + or - 3-cubic-inch standard would have passed the + or - 6-cubic-inch standard recommended by N.I.S.T. and enforced by all 36 of the states surveyed by OIS. This would have lowered the 1995 dispenser failure rate to about 2.5 percent or 905 dispenser calibrations in 1995.

On the basis of our observation of state inspectors and interviews with private pump calibrators in Colorado and surrounding states, we estimated that a pump calibration costs about $9. Consequently, we thought about $28,800 in recurring annual general funds could have been saved by enforcing the + or - 6-cubic-inch NIST accuracy standard.

Recommendation No. 2:

The Oil Inspection Section should enforce the NIST recommended tolerance for petroleum dispensers of + or - 6 cubic inches in 5 gallons.

1996 Oil Inspection Section ResponseSImplementation Date 9/1/96:

Partially agree. While the department agrees with the recommendation, it does not necessarily agree with the statistical or financial conclusions the auditors present. The auditors' conclusions are mathematical hypotheses based on analyses of selected inspections. We will conduct a test and find out for ourselves what the results are.

Starting September 1,1996, Oil Inspection will apply the National Institute of Standards and Technologies (NIST) standard of + or - 6 cubic inches per 5 gallons in four Oil inspectors' territories. After 6 months of this test, we will determine what impact there was on time and meter accuracy. Afterwards we will decide whether to expand or continue the test, implement the NIST standard statewide, or return to our existing procedure of adjusting meters that are 4 cubic inches or higher per 5 gallons.

1999 Division of Labor's Update on Implementation Status:

Oil Inspection partially agreed with this recommendation pending a test of inspecting certain retail dispensers using the NIST recommended tolerance of + or - 6 cubic inches in 5 gallons compared to our internal procedure. The test was conducted from 9/1/96 - 3/1/97 and we found that the percentage of dispenser adjustments was reduced from 11 percent to 5.3 percent in the tested areas. As a result of this test, we have implemented the recommended NIST tolerance for all our retail dispenser inspections.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 2:

Implemented.

Cost of Regulating Industry Can Be Supplemented

The OIS's pump accuracy regulatory and service activities have been paid for with general funds with no supplemental or offsetting fees. Before July 1, 1995, these activities were paid for with Highway User Trust Funds (HUTF).

The State Department of Agriculture (DOA), Measurement Standards Section regulates and inspects accuracy of commercial scales, an activity similar to OIS's regulation of pump-meter accuracy. DOA charged a fee paid by the owners of each scale to supplement about 50 percent of the general funds needed to run the program. Regulatory fees are charged by other states in our region to support pump inspection regulatory activities.

We thought that OIS could replace a portion of the general funds used to pay for its industry regulating activity. (This could increase funds available for other purposes under the TABOR limit.) For example, charging a $6.25 per dispenser fee as Texas does could replace about $181,000 of general funds annually.

Recommendation No. 3:

The Oil Inspection Section should determine the costs of providing regulatory inspection services; review pump regulatory fees paid in other states and regulatory fees paid by other Colorado industries; consult with the petroleum industry; and recommend fees and statutory changes to the Legislature as necessary.

1996 Oil Inspection Section ResponseSImplementation Date 10/1/96:

Partially agree. The Oil Inspection Section will develop an appropriate regulatory pump fee and will consult with the petroleum industry regarding the recommended fee. The department will then recommend that any proposed legislation be sponsored by the legislative audit committee.

1999 Division of Labor's Update on Implementation Status:

Oil Inspection partially agreed with this recommendation. We estimated cost for use in developing a regulatory pump fee and consulted with representatives of the oil industry. After those discussions, the industry representatives indicated that they would not support proposed legislation that would include pump or inspection fees.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 3:

Partially implemented - An evaluation of OIS documentation showed they pursued the fee part of this recommendation by consulting with the oil industry and

concluded that due to the lack of industry support, it would not pursue legislation. We still believe this recommendation should be implemented.

Calibration Services Are Provided to Pump Owners for Free

In 1995 state inspectors calibrated/adjusted 4,105 retail service station dispensers that failed to meet state accuracy tolerances during routine scheduled service station inspections. The calibrations are a service paid for with general funds and provided free of charge to pump owners as often as necessary, at a cost of about $37,000 in 1995. For example, Amoco paid a private contractor to test the pump accuracy at about 80 stations in Colorado and then called the State for a free calibration. Statutes do not require performance of calibration services by state inspectors and also do not preclude the offering of calibration services by private entities to pump owners for a fee.

A 1996 OIS survey of 36 states showed that in 35 states, including all those in our region, private contractors calibrated inaccurate petroleum dispensers for a fee paid by owners. Colorado was the only state that performed calibration services statewide.

In fact, two private providers of calibration services to Wyoming and Nebraska pump owners were Colorado companies.

Recommendation No. 4:

The Oil Inspection Section should evaluate the costs of providing calibration services if offering such services is not prohibited, establish a fee, and recommend changes to the Legislature, as necessary.

1996 Oil Inspection Section Response:

Disagree. Oil inspectors are already on site performing inspection services of service station meters and the additional time that it takes to adjust meters that are outside of state calibration standards does not justify charging an additional fee. Additionally this fee would unfairly target a small group of pump owners.

1999 Division of Labor's Update on Implementation Status:

Oil Inspection disagreed with this recommendation and explored it no further.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 4:

The agency disagreed and thus did not implement the recommendation. We still believe that the recommendation should be implemented.

Changing an Inspection Approach Could Produce Savings

OIS is required by statute to protect the environment and the public health by making, promulgating, and enforcing regulations for the design, construction, and operation of petroleum storage tanks. Each of these tanks is required to have procedures for, and documentation indicating, recent compliance with leak detection requirements, such as monthly inventory reconciliations, tank tightness tests, line tightness tests, and automatic line leak detector tests. OIS has made review of leak detection documentation part of its regular annual inspection process and records the results on the certificate of inspection.

However, our examination of inspection certificates over the previous three years, including those stations that were inspected more than once per year, revealed that at least one of every four service stations failed to provide the inspector the leak detection documentation. One state inspector estimated that over 50 percent of the service stations in his territory could not produce the documentation during the inspection. In fact, OIS regulations allow the records to be kept at another "readily available alternative site."

Recommendation No. 5:

The Oil Inspection Section should require leak detection records to be submitted with annual tank registration and to be inspected centrally.

1996 Oil Inspection Section Response:

Disagree. The most effective way to inspect leak detection records and equipment is on site by a trained person. The oil inspectors have been thoroughly trained in the inspection of leak detection records and devices. Additionally, they know when and how to conduct a leak investigation if records, etc., indicate a suspected release. A leak investigation cannot be conducted from the office. It is convenient for inspectors to analyze leak detection records because they are already on site inspecting meters etc.

Since enforcement of leak detection records was implemented in 1993, Oil Inspection has experimented with various methods of inspecting records and equipment including having records submitted to the office. We concluded that the most effective and cost-effective method is to inspect on site, as is our current practice.

Regulations allow for records to be kept on site or at a readily available alternative site. As a convenience to petroleum distributors, upon their request, we do inspect records at their administrative offices. These records are usually for multiple sites that are owned by these small companies and these same sites are normally located near the companies' offices.

The report indicated that during a given year within the last three years, 25 percent (623) of the total number of stations inspected (2,490) did not have leak detection records on site and had to mail them to the office for review. That number declined to 592 in Fiscal Year 1996 and should continue to decline as owners become more knowledgeable of the regulations. Additionally, Oil Inspection has developed a fine and penalty schedule which will be implemented by October 1, 1996, and should provide further motivation to tank owners to have leak detection records available.

1999 Division of Labor's Update on Implementation Status:

Oil Inspection disagreed with this recommendation for the reasons mentioned in the report.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 5:

The agency disagreed and thus did not implement the recommendation. We still believe that the recommendation should be implemented.

Better Inspection Data Could Improve Management of OIS Operations

Our review of 710 Certificates of Inspection from 13 cities and field observations showed that OIS's records were unable to generate accurate and readily accessible information on the location, date of last inspection, violations history, count of service stations, dispensers or fuel storage tanks in the State.

Consequently, it was difficult for OIS to:

- Verify the uniformity and effectiveness of its inspection policy or inspector workload. For example, about 3,000 inspections were performed in 1995. There were 2,490 retail service stations where some were inspected up to five times and others were not inspected at all.

- Determine if the decision to cut inspection frequency (in 1993) in half has made an impact on the accuracy of the dispensers or the allocation of resources. For example, if an inspection frequency change for all dispensers is not uniformly implemented, it is impossible to determine the overall effect of the inspection frequency change.

- Ensure that its dispenser accuracy, environmental hazard, industry, and consumer protection responsibilities are being met. For example, OIS has adopted an annual inspection schedule for non-retail service stations to determine compliance with laws and regulations such as UST/AST requirements. OIS management indicated that they do not know the number or the location, of all non-retail service stations. In 1995 there were about 400 non-retail service station inspections for approximately 6,500 active non-retail petroleum storage tanks.

- Report accurately to the Legislature, Governor, and industry groups. For example, the OIS did not know how many service stations or dispensers there are in the state of Colorado. The amounts reported are the number of inspections and calibrations performed, not the number that are supposed to be performed (i.e., number of service stations). Also, we found that the OIS reported different numbers of retail service stations to the Colorado Petroleum Marketers Association, an industry publication, and the Office of the State Auditor.

- Determine when an inspection is due. For example, some stations were not inspected for over two years, despite the annual inspection policy.

- Determine the most recent inspection. For example, when a consumer complains about the accuracy of a dispenser at a service station, it was difficult to determine if the service station was recently inspected without driving to the station location. Therefore, all consumer complaints are investigated regardless if there was a recent inspection.

Recommendation No. 6:

The Oil Inspection Section should ensure that the accuracy and accessibility of its recordkeeping system is sufficient to identify its regulatory responsibilities and their fulfillment.

1996 Oil Inspection Section ResponseSImplementation Date 8/5/96:

Agree. The Oil Inspection Section has been aware of this problem for more than two years and, after many attempts of trying to improve the existing system, decided to consider automation. The problem has been analyzed and a decision item has been prepared and approved by department management to develop a computer program that will give us immediate and historical information on service station inspections and other regulatory activities. The decision item along with other department decision items will be presented to the Information Management Commission (IMC) on Monday, August 5, 1996, and will be submitted to the Office of State Planning and Budget (OSPB) on approximately August 9, 1996. If funds are approved, then a feasibility study and pilot project will be completed during this fiscal year. Copies of this decision item for FY97/98 and of the department's guidelines for the preparation of feasibility studies are available for review.

The department takes issue with comments made in the report regarding uniformity and effectiveness of its inspection policy. It was cited that some facilities were inspected up to 5 times in one year. Out of the 3,000 inspections made, these are isolated occurrences and there were very serious reasons for doing so. Rather than criticizing, the inspectors should be praised for their dedication in performing these necessary additional inspections.

1999 Division of Labor's Update on Implementation Status:

Oil Inspection agreed with this recommendation and requested funding from the Legislature for new computer program development projects. The Legislature approved our decision items and these programs are currently under development.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 6:

Not implemented - OIS management reports that they still do not know the number of gas stations and pumps and the status of storage tanks even though the money allocated and budgeted for new computer program development projects (about $1.5 million for Oil Project labor, hardware, and software) has all been spent and those portions of the projects not yet completed are on hold. See current audit Recommendation No. 7.

All OIS Regulatory and Inspection Responsibilities Could Benefit From Review

Service stations accounted for 95 percent of the inspection activity reported by OIS and were the primary focus of our audit recommendations. However, OIS also inspects and calibrates wholesale propane and liquid fuel meters, along with a growing storage tank inspection workload, technical review, and testing resulting from its new tank leakage mitigation and cleanup responsibilities. For example, OIS reported in 1995 inspecting 1,127 wholesale flammable liquid meters of which 518 (46 percent) were outside state calibration limits. Also, of 994 wholesale propane meters inspected, 797 (80 percent) were outside state calibration limits.

Although our previous recommendations focused on retail service stations, they could be applied to OIS's other regulatory inspection activities including:

- Risk-based approaches to inspection requirements.
- Supplementing regulatory costs with fees.
- Charging fees for nonregulatory services.

- Accurately identifying, quantifying, and then reporting the number and location of facilities/units it is responsible for regulating.

Recommendation No. 7:

The Oil Inspection Section should apply Recommendations 1, 3, 4, and 6 of this audit to its other regulatory responsibilities and inspections as appropriate in terms of safety, cost, and service.

1996 Oil Inspection Section ResponseSImplementation Date 1/1/96:

Partially agree. Last January the Oil Inspection Section started a lengthy process of training and analyzing Risk Based Corrective Action (RBCA) for leaking petroleum storage tanks. RBCA is a national standard designed by the American Society for Testing and Materials (ASTM) that applies risk factors to all forms of contamination from petroleum. Its purpose is to clearly identify which forms of contamination under certain circumstances must be cleaned up, and which can be left to degrade naturally. Our training and analysis will conclude by the end of this fiscal year. At that time we will decide whether to adopt the national standard, adopt a modified standard, or retain existing state standards.

Along with the test mentioned in our response to recommendation number one, we will test in the same territories a reduced frequency on inspecting leak detection records and equipment. During this fiscal year a risk-based analysis will be considered for all other inspections and decisions will be made on whether or not to test and/or implement. This objective as well as others mentioned in our responses will be added to the Oil Inspection Section's existing strategic plan.

Fees are currently being collected from tank owners and operators that in part fund the environmental work at the Oil Inspection Section and therefore additional fees do not need to be implemented.

1999 Division of Labor's Update on Implementation Status:

Oil Inspection partially agreed with this recommendation and for the last eighteen months has conducted extensive research and developed a risk-based approach to cleaning up petroleum contamination. The approach is based on a national standard developed by ASTM (American Society of Testing and Materials). As a result of this

effort, we have adopted new regulations incorporating a risk-based approach to corrective action which will be implemented on February 1, 1999.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 7:

Partially implemented - As stated above, OIS implemented a portion of the recommendation by working with EPA to develop and implement risk-based corrective action (RBCA) when cleaning up petroleum contamination. However, OIS did not implement the important parts of Recommendations 1, 3, 4, and 6 of the 1996 audit to its other regulatory responsibilities and inspections as appropriate in terms of safety, cost, and service. We still believe this recommendation should be implemented.

Reducing the Total Number of Inspections Could Improve Public Safety and Decrease Costs and Charges

BIS has a uniform annual inspection program requirement for all boilers regardless of their relative risks. On the basis of 46 other states with inspection programs, higher-risk boilers require inspection more frequently than lower-risk boilers (36 states or 78 percent). A risk-based inspection program could reduce the number of required inspections from about 32,000 annually to 19,000, reduce costs by $236,000, and increase public safety.

Recommendation No. 8:

The Boiler Inspection Section should evaluate and categorize safety risks of boiler types, using experience from other states, and reduce and increase inspections based on risks, and recommend any needed statute changes to the Legislature.

1996 Boiler Inspection Section ResponseSImplementation Date FY 97/98:

Agree. As the new BIAS [recordkeeping] system increases in accuracy and information, we will be able to evaluate and categorize safety issues unique to the State of Colorado. Inspections may be adjusted accordingly to coincide with our risk evaluation without compromising safety to the general public. To perform

this risk analysis, a minimum of three (3) years of history and information should be accumulated in BIAS. This will be accomplished in Fiscal Year 1997-98.

1999 Division of Labor's Update on Implementation Status:

The Boiler Inspection Section did perform a risk evaluation completed in February 1997 (attached is a copy for your review). At this time, BIS does not feel that inspections should be reduced until we can improve on maintenance and operator qualifications.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 8:

Not implemented - Our evaluation of BIS documentation did not reveal evidence that maintenance standards or operator qualifications in the 36 states with risk-based inspection programs were different from Colorado's. New industry standards also support the recommended approach. See current audit Recommendation No. 8.

Most Boilers Operate With Invalid, Expired Inspection Certificates

An annual inspection program, as required by state statute, has been developed and implemented by BIS to promote a greater level of safety for life and property. Upon inspection and payment of $18, compliance is evidenced by the posting of an inspection certificate. However, in 1995 about 20,951 (66 percent) of BIS-regulated boilers operated from one day to a year or more with invalid, expired inspection certificates. This increases life and safety risk, and can also reduce revenue without a corresponding decrease in operating cost. We multiplied the $18 fee by 32,000 boilers, yielding $576,000. However, we estimated that about $460,000 will be collected, a difference of $116,000.

Recommendation No. 9:

The Boiler Inspection Section should exercise its responsibility by ensuring that all boilers are inspected and certified in compliance with statutory requirements.

1996 Boiler Inspection Section ResponseSImplementation Date 1/97:

Agree. With the implementation of the new BIAS system, BIS is able to accurately monitor inspection activities. Since February of 1996, BIS has been working closely and diligently with the insurance companies to consistently perform inspections prior to expiration of the Operating Certificates. A continued effort to eliminate past due inspections is needed and will be reviewed on a consistent basis. A goal of three (3) percent per month or less past due inspections should be accomplished by January 1997.

1999 Division of Labor's Update on Implementation Status:

BIS has worked continuously with insurance agencies to minimize overdue inspections, but they do not have the manpower, funds or the inclination to perform these inspections unless the state mandates them to do so. We currently have two remedies under consideration. One is to submit a proposal to the legislature for a change in statutes to mandate inspections for insurance agencies and propose fines for those agencies who do not perform inspections when required. The other is to submit a request to the Joint Budget Committee asking for additional boiler inspectors to assume all past due inspections currently assigned to the insurance companies. We will be meeting with the major insurance companies at the beginning of 1999 to include them in our discussions. Also, BIS has presented a decision item to the Joint Budget Committee requesting two (2) additional boiler inspectors to help maintain and complete all boiler inspections on time, due to increased workload (expansion within the state).

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 9:

Not implemented - An evaluation of BIS records shows that past due inspections continue to be an issue for both state inspectors and insurance company inspectors. See current audit Recommendation No. 8.

Proration of Charges Is Not Targeted

State statutes allow boiler inspection certificates and fees to be prorated. BIS management reported that proration allows for practical scheduling efficiencies for new boiler installations. However, most reductions of charges/prorations, about $21,000 (88 percent) resulted from inspection certificates issued more than three

months after the expiration of the previous certificate of inspection. Unlike new or relocated boilers, the scheduling of inspections for previously certified boilers is within BIS's control and statutory responsibility.

Recommendation No. 10:

The Boiler Inspection Section should recommend that the Legislature amend Section 9-4-109(2), C.R.S. by limiting proration of charges to new installations and relocations.

1996 Boiler Inspection Section ResponseSImplementation Date 1/97:

Partially agree. Allowable proration of charges provides a necessary benefit to state and insurance inspectors as well as the owners. Limiting prorations of charges to new installations and relocations will not solve the real issue of lost revenue. This issue is addressed in Recommendation No. 9. (See report.) Consequently, by complying with Recommendation No. 9 any problems associated with prorations will be corrected and a statute change is not necessary.

1999 Division of Labor's Update on Implementation Status:

Limiting proration of charges to new installations and relocations will not address the real problem of lost revenue. Inspections need to be made on time. BIS feels that by addressing the recommendation made in the 1996 audit and taking the action to address the situation as explained in Recommendation No. 9 above, proration of funds should not be a factor. The benefits of proration to state and insurance inspectors is important to maintain.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 10:

Not implemented - BIS did not propose a statutory amendment or comply with Recommendation No. 9 to address problems caused by proration. Consequently, problems associated with proration remain uncorrected. We still believe that this recommendation should be implemented.

Duplicate Inspections Increase Costs

State inspectors reinspect all new insured boilers, previously inspected by company inspectors. Management reported that the duplication is necessary to maintain an accurate record of boilers because it allows only state inspectors to control the assignment and affixing of serial numbers. Other states reported being able to maintain their inventory of boilers without the cost of duplications. This method of maintaining boiler records cost about $48,000 in 1995. This includes expenditures of about $34,000, incurred reinspecting of new boilers, and the forgone revenues of $13,788 that could have been earned inspecting existing boilers.

Recommendation No. 11:

The Boiler Inspection Section should decrease the cost of maintaining accurate records by analyzing other states' methods and recommending any needed statute changes.

1996 Boiler Inspection Section ResponseSImplementation DateSNone given:

Partially agree. The new BIAS system automatically and accurately issues the unique state ID number to each boiler after the inspection information is entered. This unique ID number identifies each individual boiler throughout its existence within the state regardless of location or insurance company status. It is critical that duplication does not exist. BIS will continually review and work within the given program parameters to effectively keep costs to a minimum, and assure the safety to the people as well as accuracy of the BIAS system.

1999 Division of Labor's Update on Implementation Status:

BIS has changed its internal procedures to allow for greater flexibility and minimize cost relative to duplicating efforts for number assignments. This process of issuing number assignments can be further addressed once the BIAS system is rewritten. A decision item to rewrite the BIAS system to allow for needed improvements has been sent to the Joint Budget Committee (1999).

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 11:

Not implemented - The BIAS system's presumed capabilities were the basis for BIS's response; consequently, analysis of other states' methods for implementing the recommendation were not pursued. We still believe that the recommendation should be implemented.

Another Source of Installation Information Is Available

BIS's records did not contain all boilers operating in the State, because the method for identifying new boiler installations was inadequate. BIS management reported that it relies on two primary sources for this information:

- The owners' statutory "duty" to report the new installation or relocation of boilers.

- The knowledge and experience of state inspectors regarding installation activity within their assigned territory.

A Colorado Municipal League building code survey indicated that 100 percent of 100 cities surveyed and 67 percent of all counties require building, plumbing, and/or electrical permits to be issued prior to construction. Our survey of four jurisdictions in three inspector territories showed no record of review by a state inspector. Permit records are a public information source that may reveal potential boiler installations or relocations. For example, Arizona and Montana boiler inspectors routinely examine mechanical permits or construction permits issued in the state to identify potential new boiler installations.

Recommendation No. 12:

The Boiler Inspection Section should consider utilizing existing information sources, such as building permits, to help determine possible boiler installations.

1996 Boiler Inspection Section ResponseSImplementation DateSImmediately:

Agree. BIS will continuously look for ways to determine boiler installations through reliable sources and/or imposing requirements.

1999 Division of Labor's Update on Implementation Status:

BIS is presently proposing a regulation to require an application for boiler installation as well as working with contractors, installers, manufacturers, suppliers and local building officials to determine installation of boilers. BIS performs a number of training seminars annually to develop a working relationship and improve communication and education pertaining to boiler requirements.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 12:

Not implemented - BIS has not addressed the problem noted in the audit, i.e., increasing inspection efficiency by adopting a policy for using resources of local jurisdictions to identify locations of boilers. We still believe that the recommendation should be implemented.

Some Boiler Owners Are Required to Subsidize Others

All boiler owners paid the $18 inspection charge and received an inspection certificate. However, only the uninsured, or about 50 percent of them, received an inspection by a state inspector, paid for with cash funds from the $18 charged to all owners. Consequently:

- Half of all owners, those who pay for insurance, subsidized the cost of service to the other uninsured boiler owners.
- The $18 charge was unreflective of actual cost.
- Managing costs and projecting charges was uncertain.

Recommendation No. 13:

The Boiler Inspection Section should determine the cost of providing certification and inspection services, establish separate charges, and recommend statutory changes allowing the application of separate charges to boiler owners/users accordingly.

1996 Boiler Inspection Section Response:

Disagree. This issue has been reviewed in the past. Costs to all boiler owners at this time are very minimal to insure the self-funding operation of this program. A separation of fees for inspections would increase the costs dramatically to boiler owners. Also, a number of statutes would have to be reviewed and changed to address this issue. At this time, it is not likely this could or should happen.

1999 Division of Labor's Update on Implementation Status:

In 1996, BIS did not agree with this recommendation based on the present minimal cost to all boiler owners ($22.00/boiler). By separating fees between inspection and certification, statute changes as well as BIAS changes are needed. Also, fees to boiler owners would increase for inspections performed by state personnel. We have had no questions, concerns or issues from owner users or insurance agencies concerning fees charged for boiler operation; however, this recommendation is noted and may at one future point in time become a feasible recommendation.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 13:

Disagreed - An evaluation of new industry standards supports the approach recommended by the Office of the State Auditor. See current audit Recommendation No. 12.

New Electronic and Manual Reporting Standards Fall Short

In 1995 the Boiler Inspection Automated System (BIAS) was completed at a cost of approximately $221,000. BIS's budget document described the project as having the capability "to provide the electronic interface with the branch program and the field inspection staff (state inspectors and insurance company special inspectors)."

However, only 50 percent of annual inspection results can be electronically interfaced and recorded on BIAS. This is because without reprogramming, the system is limited to interfacing with a maximum of eight inspectors. Company inspectors must still use forms as would any additional state inspectors.

The annual cost of manually inputting company inspection result data was about $12,000, and the cost will increase annually because about 1,600 boilers are added annually.

Recommendation No. 14:

The Boiler Inspection Section should expand BIAS capabilities to include direct data entry from insurance companies when costs can be reduced to each party.

1996 Boiler Inspection Section ResponseSImplementation DateSFY 1997:

Agree. BIS would be agreeable to allowing all interested insurance companies to perform their inspections and record them on electronic equipment (i.e., laptops) by allowing them access to their assigned boiler records in the BIAS system and allowing the download and upload as is performed by all state inspectors. Further research is needed as to cost and capability. The feasibility of this will be explored by the end of Fiscal Year 1997.

1999 Division of Labor's Update on Implementation Status:

BIS presently has a decision item into the Joint Budget Committee to rewrite the BIAS system which will allow for insurance companies to electronically transfer inspection information directly into our data base, thus reducing the time and cost for both parties.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation No. 14:

Not implemented - Due to the inadequacy of the BIAS system, we still believe that the recommendation should be implemented.

Report Should Reflect Industry Standards

In 1995, BIS adopted new standard inspection reporting forms, one for each that boiler insurance companies insure and inspect. However, BIS management has not enforced reporting on its new standard form. In 1995, BIS reported 12,424 (78 percent) of the inspections performed by company inspectors were reported on a variety of company forms instead of the state form. Companies reported that the state reporting form was organized in a different manner than the sample reporting form issued by the National Boiler and Pressure Vessel Inspection Board, and was not compatible with their current reporting systems. They also reported that the State did not ask for input from the insurance companies when developing the standard form. This resulted in:

- $5,000 in additional annual data entry costs to BIS.
- $900 in wasted annual printing costs for unused forms.
- Inconvenience to owners and cost to companies caused by boiler deficiency coding and reporting incompatibilities that occurred 237 times in 1995.

Recommendation No. 15:

The Boiler Inspection Section should work with industry to make the inspection report more compatible with national industry standards and enforce its use.

1996 Boiler Inspection Section ResponseSImplementation DateS7/1/96:

Agree. As of July 1, 1996, the state has worked closely with the insurance companies to use department-mandated forms. Use of our forms allows for National Industry Standard information plus required information needed for accurate data entry into BIAS.

1999 Division of Labor's Update on Implementation Status:

BIS continually works with the insurance agencies communicating, training, assisting and coordinating efforts to obtain appropriate information needed for our database.

There have not been any major issues concerning inspection reports relative to the minor differences between the national standard and our state-mandated form.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 15:

Partially implemented - BIS has reached agreement with most insurance companies to use a state form; however, agreement about using the form has not been reached with the single largest insurer.

BIS Can Build on Its Internet Initiative

BIS spent about $1,200 annually, not including the cost of postage and handling, printing standard forms used by insurance companies to report inspection results. These costs increased at about the same rate as the growing boiler population.

BIS also has a page on the Internet containing information such as answers to frequently asked questions about boiler inspections.

We thought that BIS should build on this customer service by adding the standard reporting form along with a list of required inspections to their existing Web page. This would allow the insurance companies to download the standard form, saving BIS printing, postage, and handling costs. Furthermore, the insurance companies could simply e-mail inspection results to BIS, providing more savings.

Recommendation No. 16:

The Boiler Inspection Section should add the standard reporting form and consider adding a list of pending inspections to the BIS Web page, along with allowing insurance companies to e-mail inspection results. Alternatively, one copy of the standard reporting form should be given to each company for their reproduction.

1996 Boiler Inspection Section ResponseSImplementation DateSImmediately:

Agree. All insurance companies have access to all state standard reporting forms now. The Internet will be utilized by BIS as the state internal system expands.

1999 Division of Labor's Update on Implementation Status:

Use of the Internet is being explored more and more. We are just now, as a Department, able to change and add to our Web page. Further research and improving Internet capabilities is an excellent recommendation made by state auditors, and we will continue to improve and expand Public Safety Web pages as time and budget allows.

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 16:

Not implemented - BIS reports that its Web site capability has been limited but expects improvement in the future. We still believe that the recommendation should be implemented.

Representations Made to JBC Are Inaccurate

The Fiscal Year 1996-1997 Department of Labor and Employment budget request document reported the following for BIS:

Performance measures, workload measures, and workload comparison measures:

	Actual FY 94-95	Estimate FY 95-96
Boiler inspections completed	31,396	34,535

However, according to BIS records, about 27,000 boiler inspections were performed in Fiscal Year 1994-95, and about 5,000 boilers were not inspected. The numbers reported as boiler inspections completed appeared to be the total number of boilers required to be completed, not the number actually completed.

Recommendation No. 17:

The Boiler Inspection Section should ensure that performance measure information reported in the annual budget request is correctly reported.

1996 Boiler Inspection Section ResponseSImplementation DateSImmediately:

Agree. There have been discrepancies in the past. However, the accountability due to the new computer system should be much more accurate in future years. BIS is learning and improving and will continue to learn and improve, the BIAS system.

1999 Division of Labor's Update on Implementation Status:

BIS has reviewed annual budget information and has clarified performance measures to more accurately reflect workload measures, effectiveness measures, and efficiency measures (1997/1998).

1999 Office of the State Auditor Evaluation of Action Taken Recommendation 17:

Not implemented - An evaluation of information BIS submitted in their Fiscal Year 2000 budget request showed that confusing discrepancies and inaccuracies continue. See current audit Recommendation No. 13.

Appendix A

Department of Labor and Employment/Division of Labor Comments on State Auditor Evaluation of Actions Taken on Oil and Boiler Inspection Sections 1996 Performance Audit

Recommendation No. 1
We implemented the portions agreed to in the 1996 audit response. We conducted the test, studied the results and decided to continue our current inspection schedules and at the same time develop a plan for future inspections. See our remarks under this year's Recommendation No. 6.

Recommendation No. 2
Agency didn't comment on this recommendation.

Recommendation No. 3
We implemented the portions agreed to in the 1996 audit response. We presented a fee proposal to industry and did not receive their support for a legislative change.

Recommendation No. 4
We disagreed with this recommendation in 1996 and the Legislature did not question our disagreement.

Recommendation No. 5
We disagreed with this recommendation in 1996 and the Legislature did not question our disagreement.

Recommendation No. 6
Agree.

Recommendation No. 7
Implemented. To label the development and implementation of Risk Based Corrective Action (RBCA) as "Partially implemented" is disappointing because this achievement along with the elimination of the backlog of applications to the Petroleum Storage Tank Fund, are the most significant accomplishments we've experienced at OIS since the petroleum storage tanks programs were consolidated here in 1995.

Risk Based Corrective Action is a highly scientific process for remediating petroleum contamination that develops site-specific cleanup standards for each contaminated site while at the same time, the process properly allocates limited financial resources. Using RBCA, the selected remediation technology is determined based on the actual threat to receptors. This means in many cases that sites that previously may have required expensive remediation may now require only limited monitoring or may be closed.

It took a team of OIS employees 16 months to develop RBCA without any assistance from EPA. However there was considerable participation from various stakeholders. Our development has been applauded by both industry and environmental groups. In June of this year the US EPA gave us a national award for our implementation of RBCA.

This accomplishment fits recommendation number seven of the 1996 recommendation audit because environmental cleanup is the most important part of our regulatory responsibilities in terms of safety, cost and service.

Recommendation No. 8

Disagree. A risk evaluation was performed and completed February 1997. This report was submitted to the legislature at which time no response was given or questions asked. Therefore, our understanding was that no further response was needed by BIS.

Recommendation No. 9

Partially Agree. See BIS response to current audit recommendation #8 and #12, which we believe, when implemented, will remedy past due inspections.

Recommendation No. 10

Disagree. BIS response to the original recommendation did not agree to make any statute changes.

Recommendation No. 11

Disagree. BIS has made several procedure adjustments for issuance of state serial numbers in order to minimize inspector duplication efforts and cost.

Recommendation No. 12

Disagree. BIS did verbally adopt a policy to interface as much as possible with other agencies. Documentation was submitted to the Auditors to support this effort.

Recommendation No. 13

Disagree. BIS originally disagreed to this recommendation.

Recommendation No. 14

Disagree. A decision item was initiated by BIS and was approved by the Joint Budget committee prior to the Auditor's re-review of BIS performance. Presently, the boiler information system is being rewritten to include the capability for insurance agencies to electronically transfer inspection information.

Recommendation No. 15

Disagree. BIS has worked diligently with all insurance agencies to work within each organization's capabilities. BIS has partially implemented this recommendation as much as possible until electronic information transfer is established with the rewrite of BIAS.

Recommendation No. 16

Agree. BIS has addressed the capability for the insurance agencies to electronically transfer inspection information with the rewrite of the boiler information system.

Recommendation No. 17

Disagree. BIS has made every effort to ensure performance measure information reported in the annual budget is correct.

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