SECTION ONE: PROPERTY CONSERVATION PROGRAM

SECTION TWO: FLEET SAFETY PROGRAM

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Section One - Property Conservation Program
Chapter 1
Overview of Property Conservation
Revised: November 2004

Volume II:

Introduction

A property conservation program is a system developed to identify, conserve, and protect the physical assets of an organization. Property conservation is an essential element of management and supervisory responsibilities. It should be incorporated into agency planning, organizing, budgeting, coordinating, directing, and evaluating activities. Property conservation activities apply to all real property owned or leased by the state, all personal property (e.g., contents), and boilers and machinery contained or operated in state-occupied facilities. The state has established specific legislative mandates regarding state agency property conservation that are administered by the Office of the State Comptroller, the State Auditor's Office, the General Land Office, and the Building and Procurement Commission.

Implementation of an effective property conservation program requires the cooperation of managers, supervisors, and employees. The benefits of such a program are reduced losses and insurance premium costs, and a safer environment for employees and the general public. Every state agency should develop and maintain a sound property conservation program.

One goal of a property conservation program is to reduce property losses and any resultant personal injuries through systematic incorporation of property loss control techniques in all state activities. In order to meet this goal, the state must establish written property conservation and loss control policies and procedures. Elements of a written property conservation program should provide agency risk management points of contact (e.g., managers, supervisors, and agency risk managers and safety officers) with methods for incorporating essential property loss control techniques into their areas of responsibility.

This section of *Risk Management for Texas State Agencies* provides a management overview of specific property conservation activities that should be implemented if the state is to protect and conserve its physical resources.

Elements of a Property Conservation Program

A property conservation program includes procedures for identifying property exposures, loss control measures, loss reporting, and program monitoring.

Identification of Exposures

Identification of exposures through an accurate property/equipment inventory is the basis for building an effective property conservation program. Volume II, Section One, Chapter 2 of these guidelines discusses specific inventory and valuation methods that are available for state agency use.

Loss Control Measures

Loss prevention and control have the purpose of identifying exposures and hazardous conditions in an agency that may threaten real and personal property, and/or the safety of employees or the public. These conditions may include, but are not limited to, needed fire protection systems, security deficiencies, and the inadequacy of emergency plans. Loss control measures of a property conservation program are discussed in Volume II, Section One, Chapter 3 of these guidelines.

Loss Reporting

Loss reporting provides a means of identifying losses, maintaining an up-to-date picture of exposures, prioritizing loss control efforts, and evaluating the property conservation program. Specific procedures required of Texas state agencies to report property losses are addressed in Volume II, Section One, Chapter 4 of these guidelines.

Monitoring the Program

Monitoring the program reinforces management's interest in the property conservation program and provides an additional means of evaluating the program. Additionally, monitoring may result in identification of exposures and loss control as by-products. Specific monitoring techniques are presented in Volume II, Section One, Chapter 5 of these guidelines.

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Section One - Property Conservation Program
Chapter 5
Monitoring the Property Conservation Program
Revised: November 2004

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Introduction

Monitoring the property conservation program provides the necessary insight to assess the understanding, acceptance, and overall effectiveness of the program. A successful property conservation program should be flexible enough to address changing conditions within the agency. Monitoring the program provides the basis for such changes.

Management Awareness

Division supervisors, managers, risk managers, and safety officers can monitor certain segments of the program from their particular vantage. Monitoring and awareness closely follow supervisory duties for loss control. Refer to Volume II, Section One, Chapter 3 of these guidelines for more information on loss control measures, safety management, and responsibility.

Effective Record Keeping

Property conservation records should be maintained in an organized and up-to-date manner. This will allow for optimum evaluation by the risk manager, safety officer, safety committees, and management personnel.

Detailed information on property records maintenance (including required forms, property loans, property transfers and deletions, records retention, and real property tracking) is contained in Chapter's 1 and 2 of the *State Property Accounting Process User's Guide*, published by the Office of the State Comptroller. This publication also contains specific procedures and user information for computer screen and field instructions for the required forms.

Statistical Evaluation

Statistical and analytical methods provide the basis for detecting trends in claims and damages. The State Office of Risk Management can assist state agencies in performing appropriate statistical analysis for property conservation programs.

Additional Resources for Texas State Agencies
Publications

Government Code, Chapter 403 - Comptroller of Public Accounts, Subchapter L - Property Accounting, Sections 403.271-403.278

Government Code, Title 10, Chapter 2175 - Surplus and Salvage Property

Natural Resources Code, Chapter 31 - General Land Office, Subchapter E - Real Property Accounting and Management, Sections 31.152 and 31.154

State Property Accounting Process User's Guide,
Publication, #96-418 (June 2004)
Office of the State Comptroller
Fiscal Management
111 East 17th Street
Austin, TX 78774-0001
(512) 475-0549
FAX: (512) 475-0378

Agencies and Organizations Providing Assistance

State Office of Risk Management
William P. Clements, Jr. Building, 6th Floor
300 W. 15th Street
P.O. Box 13777
Austin, TX 78711-3777
(512) 475-1440
FAX: (512) 472-4769

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Section One - Property Conservation Program
Chapter 2
Identification of Property Exposures
Revised: November 2004

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Introduction

To determine a state agency's exposures to possible property loss, the agency should know of its assets. Therefore, the basis of an effective property conservation program is an accurate inventory of all property and equipment.

State Property Accounting (SPA) System

Government Code, §403.271(b) gives the Office of the State Comptroller (comptroller) for the State of Texas the authority to administer the property accounting system.*1* The comptroller issues rules and regulations (34 TAC §5.200) concerning the SPA system.*2* The comptroller also publishes the *State Property Accounting Process User's Guide.* This guide is designed to familiarize agencies with requirements, outline reporting responsibilities, and also contains specific policies, procedures and user information, such as computer screens, field instructions, and forms.*3* Together, the comptroller's rules and guide prescribe records, reports, and forms necessary to accomplish the statutory objectives of the property accounting system. The comptroller maintains centralized records of state personal property in the fixed asset component of the uniform statewide accounting system. The State Auditor's Office (state auditor) provides technical assistance, advice, and approval for specific situations.

Where the comptroller finds an agency has proven an ability and competence to maintain complete, accurate, and detailed records of its property without full supervision, the comptroller may direct the agency to keep the detailed records at the agency's principal office. Thus, the agency keeps detailed records and furnishes reports at prescribed times, enabling the comptroller to keep only summary records of the agency's property.*4*

The comptroller supervises the property records of an agency so records accurately reflect the agency's current property. Property that becomes surplus, obsolete, or no longer serviceable may be deleted from the agency's records only when authorized by the comptroller. Property missing from or legally disposed of by the agency may be deleted from the agency's records only under the comptroller's procedures and with the state auditor's approval.*5*

All real property owned by the state must be accounted for by the state agency that possesses the

property, under §31.153, Natural Resources Code. The Asset Management Division of the General Land Office (GLO) reviews and keeps inventory records of all property owned by the state. These inventory records are kept in the state real property inventory (SRPI). The inventory records are compiled from information submitted to the division under §31.153 and §31.155 of the Natural Resources Code. The SRPI captures information for real property assets, including correct market values, for all Texas state agencies.[6]

Property Inventory

Under the Government Code and the comptroller's rules, state agencies are required to report and maintain an inventory of all personal property, including capitalized assets, debt-financed personal property, and controlled assets. The comptroller has the authority to set the dollar value amount for capital assets and authorize reporting exemptions. Rules implemented by the comptroller provide parameters for inventory values and exemptions.[7]

Inventory values are typically the accounting values or book values. These values are the historical (purchase) cost. Property and system upgrades should also be considered when assessing values. However, from a risk management standpoint, replacement cost values should also be carried on the inventory. An accurate inventory including replacement costs is instrumental in allowing an agency to determine the extent of risk transfer (e.g., insurance or leasing) needed for the assets. Assets with low replacement values usually involve no risk transfer, while items with high replacement values may be leased or insured to lessen the loss to an agency should an item be lost, stolen, damaged, or destroyed.

The Government Code and the comptroller's rules require a state agency to make an annual physical inventory of all its property. The inventory report is due not later than 45 days after completion of the inventory, or, in any event, not later than September 20th for the prior physical year. The comptroller is responsible for establishing the inventory date for the agencies. Within forty-five days of the established date, agency heads are to forward to the comptroller a signed statement describing the method used to verify the inventory and a copy of the inventory.[8] In addition, state agencies need to inspect and report the condition of the assets during the annual inventory. Property condition, and in particular routine maintenance and repair, are important parts of the state property conservation program.

Property Manager

Section 403.273 of the Government Code makes an agency head accountable and responsible for the proper custody, care, maintenance, and safekeeping of state property owned by the agency. This responsibility may be delegated to a property manager(s) designated by the agency head. The agency head shall inform the comptroller in writing of the name(s) of the property manager(s) and of any changes in the property manager(s) status.

When entrusting an agency's property to some person other than the property manager, the property manager must obtain a written receipt for the property from the person receiving custody of the property. When an agency entrusts its property to another agency, the transfer must be authorized in writing by the agency head lending the property and a written receipt must be provided by the agency head borrowing

the property. Also, the loaning agency still has the responsibility of assuring stewardship of the property and must report all loaned property in its physical inventory.[9]

Property Exposures

Following is a brief discussion of some of the more typical property exposures that can be found in state agencies.

Buildings

Buildings owned by the state are an obvious loss exposure. Agencies often carry historical costs on the books without considering depreciation except for enterprise-type property. Where will the state obtain the funds necessary to replace the building? The true risk a state agency's risk manager wants to identify concerning buildings is the potential loss of the entire structure based on the current cost to replace it, not the book value or cost.

Damage to part of a state-owned building may result in another risk. Under most building codes in existence today, the entire building must be replaced if a building is damaged beyond 50 percent of its value. That is, the undamaged portion must be demolished before replacement. Therefore, a demolition exposure exists in the event damage to a building is over 50 percent of its value but less than 100 percent. The agency's risk manager should become familiar with applicable building codes to see if there are any other exposures created by such codes when applied to state-owned buildings.[10]

Personal Property (Contents)

Records of purchase price and date of acquisition should be kept. Useful life estimates are beneficial but should not go below a certain value for any operating equipment. This value should be higher than the salvage value, which varies from about 8 to 14 percent of original cost. Often the only practical procedure is to use an average figure based on the best available judgment, frequently that of equipment operators, their supervisor, or the property manager and risk manager.

Special attention should be given to equipment of particular value having unusual problems of repair or replacement. Older equipment often presents a repair problem when damaged. Machines of foreign manufacture can be difficult to replace or repair. Also, consideration should be given to the value of changes made by agency engineers. Such costs are often overlooked in property records.

These conditions should be considered by department heads and reviewed regularly, but it is up to the risk manager to raise the proper questions.[11]

Objects on loan to the state, such as objects of art, present exposure to loss. Review the contract with the lender to determine the state's responsibility for any loss or damage. The contract should not only describe the responsibility of the state, but also the valuation placed on the object. In this way, the exposure to loss becomes known, whether it is $100 or $1,000. Often no agreement may exist on either the responsibility of the state for these objects or the valuation placed on the objects. Consultation with

the agency's general counsel may be required to determine what, if any, responsibility the state entity providing the exhibit space assumes.[12]

Financial Exposures

Cash presents many possible exposures. From a risk management point of view, several questions must be considered. What types of controls exist for cash? Where are cash, checks, or other negotiable items kept overnight? How does the agency move cash from its initial storage facility to the bank? What personnel does the agency have acting as cashiers? Who approves invoices and who signs checks to pay those invoices? These and more questions should be raised about cash to identify relevant exposures.

Accounts receivable present many of the same hazards as cash. Tremendous exposure to loss occurs if the records of accounts receivable are destroyed and an agency has to rely on one of its debtors to recreate accounts receivable records.[13]

Inventories

Inventory values should be assembled at least annually and often monthly, depending on their fluctuation. Office supplies, inventories, etc., can be properly valued only by physical inventory. Where inventories are not available, informed estimates by those who handle or suspense use of the inventory generally serves the purpose.[14]

Valuation of inventories and buildings is a very important concern. This is particularly true with items of equipment carried at cost on the books, but that have increased in cost substantially in recent years. Property and system upgrades need to be considered when assessing values. Inventory records should be accurate. Are the items carried on the books actually in existence, or were they previously disposed of and not updated in the books? A regular inspection of properties can be used to determine true exposures or risks.

Leased electronic data processing (EDP) equipment should be looked at carefully to determine who has the risk of property loss or damage. The lease may provide that the owner or lessor of the equipment carry all normal exposures to loss passing only very unusual exposures to the lessee.[15]

Boiler and Machinery

Boiler and machinery risks are often overlooked. These risks are technical and require some engineering knowledge. Losses usually are infrequent. Unfortunately, losses that do occur can be very high. This area includes boilers (steam and hot water) and pressure vessels (fired and unfired). Facilities should be reviewed for appropriate loss control measures of both fired pressure vessels (e.g., water heaters, autoclaves, sterilizers, and vulcanizers) and unfired pressure vessels (e.g., air tanks and LP gas tanks).[16]

Property Valuation

One of the main problems in the identification of property exposures is valuation. Accurate property

valuations are an important part of risk management, and a common error is imprecise valuation of property. This may result in inappropriate loss adjustments.

Replacement Cost

Replacement cost is the total cost to replace a building with one of like utility, not necessarily an identical replacement. Costs include the total of a contractor's bid, an architect's plans and specifications, supervision, and insurance. Replacement cost should not be used to cover property that would not be rebuilt. If the agency does not rebuild, only actual cash value should be identified on property valuation records.*17*

Valuation Records

Complete valuation files should be kept on every main structure. These files should contain the following:

- Original source data (e.g., appraisal, construction cost breakdown, or whatever material was used to develop the original figure)
- Date of original valuation

Values should be broken down by pertinent categories, such as landscaping and grading, underground construction, fences, architect's fee, and detached structures. Different perils may sometimes call for different values. For example, fire might exclude foundations, while earthquake would not. An annual update should record the construction cost index used and its source and depreciation assessed. Indices for updating can be obtained from agents, brokers, or insurers if more direct sources are not at hand.*18*

Facility Planning

Planning and programming actions for state facilities have a direct impact on loss control programs. Information regarding new construction starts, plans for structural changes, new leases for state operations or activities, and any changes to facility occupancy should be analyzed for associated risk exposures in the early planning stages. The State Office of Risk Management can provide assistance to a state agency in the following property conservation areas:

- Recommendations regarding property conservation program activities, to include construction and initial inspections
- Coordination with appropriate offices for necessary program adjustments
- Review and recommendation of property conservation measures, to include recommending consultation with engineering services, if applicable

Delays in providing information on facility programs may result in increased costs for protection systems, lack of protection systems, and a less safe facility.

Checklist for Essential Program Elements

1.	Has the agency head appointed a designated property manager under Government Code, §403.273?	Yes	No
2.	Does the agency own buildings, facilities, and/or raw land?	Yes	No
3.	Does the agency have any heating boilers, nuclear boilers, power boilers, or unfired steam boilers?	Yes	No
4.	Is there a written policy or procedure that establishes a property accountability program within the organization for internal controls of agency-owned equipment?	Yes	No
5.	Do procedures address processing agency-owned equipment inventory items to include receipt and transfer of items?	Yes	No
6.	Have any agency-owned equipment items been lost, stolen, damaged, or destroyed?	Yes	No
7.	Has the agency head appointed a designated property manager under Government Code, §403.273?	Yes	No
8.	Are annual inventories of agency-owned equipment conducted?	Yes	No
9.	Are supplies inventoried on an annual or more frequent basis?	Yes	No

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Additional Resources for Texas State Agencies

Publications

Government Code, Chapter 403 - Comptroller of Public Accounts, Subchapter L - Property Accounting, Sections 403.271-403.274

Natural Resources Code, Chapter 31 - General Land Office, Subchapter E - Real Property Accounting and Management, Sections 31.151-31.155

Texas Administrative Code, Title 34 - Public Finance, Part 1 - Comptroller of Public Accounts, Chapter 5 - Funds Management (Fiscal Affairs), Subchapter 0 - Uniform Statewide Accounting System, Section 5.200 - (State Property Accounting System)

State Property Accounting Process User's Guide, Publication, #96-418 (June 2004)
Office of the State Comptroller Fiscal Management

111 East 17th Street
Austin, TX 78774-0001
(512) 463-3982
FAX: (512) 475-0549

State Real Property Inventory Application Handbook (December 2003)
General Land Office
Asset Management Division

1700 North Congress Avenue
Austin, TX 78701-1436
(512) 475-1427, or

State Property Inventory Manager
(512) 463-5250

Protection of Assets, Volumes I-IV (April 1997)
The Merritt Company
1661 Ninth Street, P.O. Box 955
Santa Monica, California 90406-9943

Endnotes

1. Government Code, Chapter 403, Subchapter L, Section 403.271 (Vernon Pamphlet 1998). (Return to text)

2. Texas Administrative Code, Title 34 - Public Finance, Part 1 - Comptroller of Public Accounts, Chapter 5 - Funds Management (Fiscal Affairs), Subchapter 0 - Uniform Statewide Accounting System, Section 5.200 - State Property Accounting System.(Return to text)

3. *State Property Accounting Process User's Guide*, , Comptroller of Public Accounts, Fiscal Management Documentation; Publication, #96-416; June 2004. (Return to text)

4. Government Code, §403.271(d) (Vernon Pamphlet 1998); 34 TAC §5.200(d); *State Property Accounting Process User's Guide* , Chapter 2. (Return to text)

5. Government Code, §403.273(h) (Vernon Pamphlet 1998); 34 TAC §5.200(f); *State Property Accounting Process User's Guide Chapters 2 and 6*. (Return to text)

6. Natural Resources Code, Subchapter E, Sections 31.153-31.155 (Vernon 1998); *State Real Property Inventory Procedure Manual*, General Land Office, Asset Management Division, July 1987, Foreword. (Return to text)

7. Government Code, §§403.271-403.272 (Vernon Pamphlet 1998); 34 TAC §§5.200(a)-5.200(c) and §5.200(f); *State Property Accounting Process User's Guide*, Chapter 1. (Return to text)

8. Government Code, §§403.273(f)-403.273(g) (Vernon Pamphlet 1998); 34 TAC §5.200(e); *State Property Accounting Process User's Guide*, Chapter 2. (Return to text)

9. Government Code, §§403.273-403.274 (Vernon Pamphlet 1998); 34 TAC §§5.200(g)-5.200(h); *State Property Accounting Process User's Guide, Chapter 2*. (Return to text)

10. Roos, Nestor R. and Joseph S. Gerber; "Risk Identification" in *Governmental Risk Management Manual*; Risk Management Publishing Company; July 1986; pp. 2-4 - 2-5. (Return to text)

11. Warren, David and Ros McIntosh; "Property Risks and Insurance" in *Practical Risk Management*, Volume 2; Warren, McVeigh & Griffin - Risk Management Consultants; September 1990; Topic F-2, p. 4.(Return to text)

12. Roos, Nestor R. and Joseph S. Gerber; p. 2-5. (Return to text)

13. Roos, Nestor R. and Joseph S. Gerber; p. 2-5. (Return to text)

14. Warren, David and Ros McIntosh; Topic F-2, p. 4. (Return to text)

15. Roos, Nestor R. and Joseph S. Gerber; p. 2-5. (Return to text)

16. Warren, David and Ros McIntosh; Topic F-5, pp. 1-2. (Return to text)

17. Warren, David and Ros McIntosh; Topic F-2, pp. 2-3. (Return to text)

18. Warren, David and Ros McIntosh; Topic F-2, pp. 5-6. (Return to text)

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Section One - Property Conservation Program
Chapter 3
Loss Control Measures

Revised: November 2004

Volume II:

Security

In a risk management context, the security function encompasses the following:

- Analysis of crime risks and other threats to the integrity of state assets and privileged information

- Protection through
  - Guards and watchmen
  - Internal accounting controls
  - Premise security devices such as alarms, intrusion detectors, locks, and plant layout
  - Computer/Information Resource security devices such as firewalls, anti-virus software, Intrusion Detection Systems, and encrypted storage
  - Armored car services
  - Pre-employment screening

- Risk transfer through

  - Insurance policies such as comprehensive, dishonesty, disappearance, and destruction policies; fidelity bonds; and, all-risk property policies
  - Contracts.

Security should be approached as an integrated system in which people, objects, and procedures are deliberately arranged for the most effective total result.*1*

Protection Program

An important part of security is an effective protection program. Three essential elements should be included in the design of a protection program: education, prevention, and detection. The first two are the most important because risk avoidance is the key to good security protection.

Detection is important for two reasons. First, management should be informed, as soon as possible, that

an event that may cause damage has occurred so appropriate controls can be instituted to prevent a recurrence. Second, those who perform acts that would be detrimental to the agency will be made aware that they may be caught.

Employees should be encouraged to be security conscious. Awareness of the need for and the acceptance of a security program are essential. For that reason, a security education program is the cornerstone of an effective assets protection program.[2]

Life Safety Code

The scope of the Life Safety Code covers only those facility design elements that relate to life safety from fire. However, accident prevention and the preservation of property may also result from adhering to the provisions of this code.

The Life Safety Code is not a building code, but it is often used with a building code. Further, the code clearly states that it cannot "save" everyone in an occupancy even if all the design and operational requirements of the code are met. In particular, those people who accidentally or deliberately start a fire or who are near the point of ignition are beyond the code's capability to totally or, in some cases, partially protect.[3]

Fire Protection

Fire is always a major and most serious threat to agency personnel, property, and functions. Fires do not just happen. They are caused by acts such as carelessness in operating equipment, handling hazardous materials, and personal habits such as smoking. Even though these actions are not usually deliberate, this still does not lessen the results. Employees can protect themselves against these hazards by learning how to prevent fires.[4]

Fire Protection Aspects

The scope of fire protection costs is far greater than most managers realize. It encompasses not only fixed fire protection devices, such as automatic sprinklers, hydrants, water supplies, extinguishers, fire doors, fire alarms and other obvious protection devices, but also the less obvious (and often greater) costs of process layout, building design, construction materials, and fire protection design and engineering. The total cost of fire protection is often spread among other budget items, such as construction, insurance, and maintenance costs. The risk manager can bring the total cost into focus.

Professional engineering assistance regarding fire protection should be retained whenever: a major project is planned; a vital production process involving serious fire hazards is designed; significant changes occur in occupancy or processes; or, insurance or government inspectors have made costly recommendations or requirements.[5]

First Aid Fire Protection

Hand extinguishers are usually looked on as "first aid" fire protection and are of particular importance because most fires are controlled by these units. Hand extinguishers are categorized by the type of fire on which they are useful. The most common types of hand extinguishers are pressurized water, carbon dioxide, and dry chemical.6

Electrical Hazards

The leading causes of fires are electrical problems. Electrical equipment must be properly maintained to reduce failures that could cause a fire. Employees should be able to identify potential electrical hazards and should be trained to report defective equipment to the electrical maintenance department. Because fires are often caused by unskilled people installing or maintaining electrical equipment, only authorized personnel should be permitted to perform electrical work.7

Kitchens

There are two main sources of hazards in kitchens. One is ignition of deep fat used for frying. The other is ignition of accumulated grease residues in the exhaust duct. If the exhaust duct is continually kept clean by use of metal filters and regular cleaning, there will be little hazard.

Deep fat fryers can be protected against overheating by an over-temperature control separate from the controlling thermostat. Carbon dioxide fire extinguishers should be present since CO2 does not harm food and quickly dissipates. Fixed dry chemical systems are often used to protect the exhaust duct if regular cleaning is not frequent enough to prevent residue buildup.8

Hazardous Substances

A basic knowledge of principal hazardous substances likely to be encountered is of great value to the risk manager in assessing a hazard.

- **Flammable Liquids -** Though more elaborate classification systems are used, flammable liquids may be divided into those that produce flammable vapors at room temperature and those that do not. "Flash point" is the term that denotes the temperature above which a liquid gives off vapors that can be ignited and below which it does not. Gasoline has a flash point well below zero degrees Fahrenheit, so it readily produces flammable vapors at room temperatures. These vapors are heavier than air and can travel along the ground for considerable distances, which makes gasoline such a hazardous substance.

- **L.P. Gas -** Butane, propane, and other liquefied petroleum gases are exceptionally hazardous. They are liquid only at the elevated pressures within the heavy steel containers in which they are stored. When released, they turn into a gas much heavier than air, which can be ignited at a considerable distance from the container.

- **Natural Gas -** Natural gas is principally methane, which is lighter than air so it tends to rise. While easily ignited, it does not have the degree of hazard possessed by L.P. gas and gasoline.

- **Paints -** Water base paints are not hazardous. However, those with petroleum or turpentine thinners are moderately hazardous since the thinner usually has a flash point higher than room temperature. Exceptions to this are lacquer and lacquer thinners, which have low flash points and are stored in red label containers.*9*

Explosion Control

An explosion control program assists in providing a reasonably safe, reliable operation. Explosive substances take various forms, such as gases, liquids, fumes, dusts, pressures, and chemicals. Any substance that can explode should be investigated thoroughly to ensure that it can be made completely safe to work with. Using small quantities of solvents, flammables, or chemicals can give a person a false sense of security. There is no such thing as a "small" quantity of hazardous material that can be ignored. Solvents and flammables must be kept in approved containers and stored in safety cabinets.*10*

Chemical Control

The Texas Hazard Communication Act, Health and Safety Code, Chapter 502) is also known as the "right-to-know" law. The Act provides employees with access to information about job-related exposure to hazardous chemicals. The Act also requires state agencies to notify employees of the law and their rights, provide training as needed on the hazards and safe use of chemicals in their workplaces, provide appropriate protective equipment, make material safety data sheets (MSDSs) readily available to employees, ensure that chemical containers are labeled, and prepare workplace chemical lists if hazardous chemical inventories exceed 55 gallons or 500 pounds. Refer to Volume III, Section Two, Chapter 7.12 of these guidelines for details regarding hazard communication standards.

If hazardous chemicals are used, procedures must be developed to handle accidental spills to protect state property, employees, neighboring companies, homes, and businesses. A hazardous materials review will reveal methods of identifying a potential problem and containing a hazardous material before it contaminates the environment. *11* For more information regarding hazardous materials management, refer to Volume III, Section Two, Chapter 7.13 of these guidelines.

Equipment Maintenance

Identifying potential problems or hazards before a loss or damage occurs is often the most cost-effective property conservation measure that can be taken. Major activities and operations often involve large and complex machinery. Preventive maintenance, operational equipment checks, and technical inspections can detect impending failures or determine if more training/operational procedures are needed. These same preventive measures apply on a smaller scale for smaller items of equipment.

Any equipment that can cause or contribute to an accident unless it is maintained periodically should be identified, along with the equipment needed for safety and emergencies. The equipment should be inventoried and identified by name and location, and this information made readily available to those responsible for maintaining it.

Safety equipment (e.g., eyewashes and safety showers) should have daily operational checks and periodic maintenance inspections. Fire extinguisher hoses and sprinkler systems require special inspections and maintenance, and should be a top priority in the agency's total program.

Employees should be instructed to report defective equipment to their supervisors and to refuse to use any defective equipment (such as unguarded machinery, a fork truck without a working horn, a clogged eyewash, or an exhaust hood that is not working properly).

A formal record-keeping system should be developed for maintenance activities that pinpoints abusive and high-accident areas where equipment and facilities damage must be repaired by maintenance.

One important benefit of keeping safety equipment well-maintained is the knowledge that, in the event of a problem, emergency tools will function as they should. Emergency equipment failure can turn a minor problem into a major incident.*12*

Preventive Activities for Parks and Recreation Areas

The degree of preventive measures in parks and recreational areas depends on the scope of existing activities. One goal in the operations of parks and recreation areas is to provide a reasonably safe facility for users. One serious accident, injury, or fatality can easily become a costly item in any park and recreational budget. A secondary goal is the protection of park and recreational property, buildings, and facilities from loss. Examples of loss include man-made destruction such as vandalism as well as natural destruction and weather-related incidents.*13*

Environmental Impairment

When exposures involve environmental risks, identifying those exposures is particularly crucial to establishing the liabilities an agency must deal with under a complex network of federal, state, and local environmental laws and regulations. Within the last fifteen years legislative and regulatory efforts on the federal, state, and local level to control air, water, and land pollution have intensified. State agencies that are not in compliance with latest regulations are ignoring the enormous risk of substantial fines, penalties, civil suits, and even the possibility of a shutdown of operations.

A well-defined series of steps, which begins with the identification of hazardous wastes and hazardous materials, is the core of an environmental audit process. The primary goal of an environmental risk audit is to help the risk manager identify exposures and determine those areas where the agency is in noncompliance with the law. That, in turn, provides the basis for adopting measures to minimize the agency's liabilities. The risk manager also needs a system that provides exposure analysis on a continuous basis because of the numerous and changing environmental laws and regulations.

Before completion of the exposure identification phase, a state agency must become familiar with the laws and regulations that govern the handling, storage, and use of hazardous materials. The Commission on Environmental Quality can provide assistance to state agencies concerning environmental exposures and laws.

Areas of Potential Environmental Impairment Liability

The number of exposures to third party claims for environmental impairment is quite large, especially where there are operations involving waste disposal, discharges of liquids into a stream or lake, or use of any type of hazardous chemicals. The following is a list of some of the exposures to environmental impairment liability which may be found. While not exhaustive, this list should provide some idea of the kinds of incidents which have occurred in the past, giving rise to third party claims for environmental damage.

- Defoliants, herbicides, pesticides, and fertilizers are toxic in their concentrated form or even in the state in which they are applied.

- Underground tank storage of oil, solvents, and fuels presents an environmental exposure. Many tanks and pipelines have not been regularly inspected or maintained and the first notice the agency receives of the problem comes from a third party claim for contamination of a well or stream.

- Educational or health care facilities have more environmental exposures. These facilities may contain dozens of harmful substances which are stored, used, and disposed of on a regular basis.

- Hospitals may have radioactive materials on hand for diagnostic and medical treatment purposes.

- Laundry operations may give rise to third party claims for air or water pollution. Many facilities use bleaches, acids, and some pretreat water before releasing it into a stream or the public sewer system.

- Public utility services also present environmental exposures. The operation of fossil fuel boilers to generate electricity introduces additional potential sources of air and water pollution. Transformers and capacitors may contain polychlorinated biphenyls (PCBs), which have resulted in numerous claims against public and privately owned utilities.

The list of additional environmental exposures can be extended almost indefinitely. The limits of the human imagination seem boundless where a potential recovery from a "deep pocket" with taxing power is available. While many of the claims can be successfully defended, the cost of defense is significant.[14]

Emergency/Disaster Plan

A disaster plan is a set of written procedures for dealing with emergency situations. It should cover such situations as fire and explosion; hurricane, tornado, and other natural disasters; bomb threat; terrorist attack; release of toxic materials, etc.

A disaster can take the form of a single facility catastrophe or an area-wide situation, such as from a hurricane which wipes out power and other public, as well as private, facilities. Planning would be different for each.*15*

Natural disasters should be recognized as potential hazards and planned for accordingly, depending on the geographic locations involved. Management can organize teams to plan ways in which the agency will cope with these disasters. Contingency planning teams can assign emergency responsibilites.*16*

The emergency/disaster plan should be updated whenever changes make it necessary. Proposed and actual revisions should be reviewed in detail with concerned personnel. Objectives of a disaster plan are to:

- Identify problems by focusing the attention of key managers
- Establish a plan of action in advance of a crisis
- Train personnel to carry out appropriate action in emergencies.*17*

Public Premises Usage

The Texas Tort Claims Act, Civil Practices and Remedies Code, §101.022 makes provision for the duty owed by the state if a claim arises from premises and special defects. The Code specifies that a governmental unit (e.g., a state agency) owes to a claimant only the duty that a private person owes to a licensee on private property unless the claimant pays for the use of the premises. Further, the Code states that the limitation of duty does not apply to the duty to warn of special defects such as excavations or obstructions on highways, roads, or streets or to the duty to warn of the absence, condition, or malfunction of traffic signs, signals, or warning devices as is required by §101.060.*18*

Therefore, the state may be liable for payment of claims brought against the state for defects or hazardous conditions that exist on state premises. Most state agencies have facilities or premises that are used by members of the general public. A state agency should routinely examine its premises for defects and hazards. Appropriate remedial measures to correct the defect or hazard should be started and appropriate warnings posted to notify the public of the defect or hazard.

Loss Control Inspections

Effective self-inspections have many purposes. One of the most important purposes is that inspections display management's determination that unsafe conditions and practices will be identified and

corrected. There are no inspections more effective than those made by senior executives. It is amazing how these inspections produce many beneficial results.

Inspection programs conducted internally can easily be measured for effectiveness. If a planned tour indicates many obvious, unsafe practices and conditions, it is doubtful that existing inspection programs are effective. Also, if the results of inspections are not given appropriate attention, they become useless.

Identifying potential problems or hazards through inspections before loss or damage occurs may be the most cost-effective property conservation measure that can be taken. Operational checks and technical inspections of equipment can detect potential failures or determine if more training/operational procedures are needed. Regular technical inspections should also be performed to ensure that all protective systems actually provide the designed warning and protection.

Technical inspections of emergency systems, such as lights, fire doors/shields, and communications should also be performed at least annually (more frequently if specified by the manufacturer). Loss control audits and inspections should be conducted by loss control safety specialists to evaluate property conservation efforts. Loss control audits and inspections include property conservation program implementation, effectiveness of conservation measures, and conditions requiring evaluation or corrective action.

Fire and extended coverage inspections include review of building construction including roof condition, emergency plans, emergency organizations, protective systems, and internal inspection programs.

Boiler and machinery inspections include review of boiler and machinery conditions, technical inspections, and state boiler certification. Insurance carrier engineers are state-licensed boiler inspectors and provide the certification inspections required by the state for boiler operation. Unlike fire and extended coverage recommendations, the agency must comply with recommendations made regarding required boiler repairs to obtain the boiler certificate from the state. A noncompliance could require a shut down of boiler operations.

The agency’s risk manager/safety officer should conduct an inspection of the property conservation program at least annually. Facility managers or safety/risk management officers should conduct periodic inspections of all facilities. These should include inspections of emergency plans, fire protection system equipment, alarm systems, housekeeping, flammable/combustible storage, and the status of required training. Completed inspection checklists and inspection reports should be maintained at the department or facility for review by management and auditors/inspectors. For details regarding a safety inspection program, a sample safety inspection checklist, and a sample report form, refer to Volume III, Section Two, Chapter 5.4 of these guidelines.

Line employees are often the first to recognize property/equipment problems or hazards. An agency hazard report should be established to facilitate employees’ reporting conditions that, if corrected, could reduce or prevent property damage or employee injury.

Hazard reports should be sent to the line supervisor, the agency safety officer, and the agency risk

manager. State agencies should encourage reporting and corrective action at the lowest possible level. If corrective action is beyond the capability of the investigating level to correct, the report, investigation, and recommendation should be forwarded through channels to the level that has the authority or resources to implement the action.

Hazards found while inspecting the premises may be broken down into the following areas:

- **Imminent Life Hazard--Easy to Correct**

  - Example: Locked emergency exits
  - Action: Corrections should be made at once.

- **Imminent Life Hazard--Hard to Correct**

- Example: Broken sprinkler or warning system
- Action: Corrections should be started but may require time to correct the problem. A schedule for making the corrections should be established and progress should be evident in a reasonable length of time. Adequate warnings should be provided until corrections can be made.

- **No Imminent Life Hazard--Easy to Correct**

  - Example: Poor housekeeping
  - Action: Corrections should be allowed to be made over a relatively short time period (about one or two weeks), with the possibility of a limited extension if necessary. Appropriate warnings should be provide

- **No Imminent Life Hazard--Hard to Correct**

  - Example: More sprinklers required
  - Action: Corrections should be started but may require time to correct the problem. A schedule for making the corrections should be established and progress should be evident in a reasonable length of time. Adequate warnings should be provided until corrections can be made.

Testing and Inspecting Purchases

Under §2155.069 of the Government Code, the Texas Building and Procurement Commission (TBPC) may

- Test and inspect goods and services purchased under a contract administered by TBPC to ensure compliance with specifications

- Contract for testing
- On request, test and inspect goods and services purchased by other state governmental entities on a cost recovery basis
- Test and inspect goods and services before purchase.

The responsibility for inspection and testing is delegated to the Inspections Section of TBPC's Central Procurement Services. However, state agencies may perform their own testing and inspection of goods and services before purchase using standard industry testing methods, or they may contract for testing. TBPC can advise state agencies of available, private testing facilities.[19]

Checklist for Essential Program Elements

1.	Are written procedures established for providing building and facilities security?	Yes	No
2.	Do security procedures address controls such as restricting/controlling access to agency facilities?	Yes	No
3.	Does the agency use security guards or police officers?	Yes	No
4.	Are routine building, property, fire, and safety inspections conducted?	Yes	No
5.	Are written procedures established by the agency for conducting building/facilities fire and safety inspections?	Yes	No
6.	Are boilers regularly inspected by the State Department of Licensing and Regulation?	Yes	No
7.	Does the agency have environmental liability exposures (e.g., air or water emissions, biological or radiological contaminants, petroleum storage tanks, chemical exposures, hazardous waste exposures)?	Yes	No
8.	Has a comprehensive risk assessment of environmental exposures been conducted?	Yes	No
9.	Does the agency have an emergency/disaster plan, program, or procedure that addresses all potentially significant emergencies, disasters, or business interruptions?	Yes	No

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Additional Resources for Texas State Agencies
Publications

Government Code, Title 10, Subtitle D - State Purchasing and General Services, Section 2155.069

Civil Practice and Remedies Code, Title 5, Chapter 101 - Tort Claims, Subchapter B - Tort Liability of Governmental Units, Section 101.022 and Subchapter C - Exclusions and Exceptions, Section 101.060

Life Safety Code® Handbook (Seventh Edition, 1997) National Fire Protection Association (NFPA)
1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-91101
(800) 344-3555

Practices for Protecting Information Resource Assets (September 2003)
Texas Department of Information Resources
300 West 15th St., Suite 1300
Austin, TX 78701
(512)475-4700

Protection of Assets, Volumes I-IV (April 1997)
The Merritt Company
1661 Ninth Street
P.O. Box 955
Santa Monica, California 90406-9943
(310) 450-7234
(800) 638-7597
FAX: (310) 396-4563

Agencies and Organizations Providing Assistance

Texas Building and Procurement Commission
CPS - Procurement Support Program
Inspections Section
1711 San Jacinto
P.O. Box 13047
Austin, TX 78711-3047
(512) 463-3413

Commission on Environmental Quality
12100 Park 35 Circle
P.O. Box 13087
Austin, TX 78711-3087
(512) 239-1000

Endnotes

1. Warren, David and Ros McIntosh; "Loss Control/Claims Mgt." in *Practical Risk Management*, Volume 1; Warren, McVeigh & Griffin - Risk Management Consultants; September 1992; Topic D-3, p. (Return to text)
2. "Essentials of a Security Program" in *Best's Safety Directory*, Volume II; A. M. Best Company; 1991; p. 1913. (Return to text)
3. Coté, Ron, ed.; *Life Safety Code Handbook*, Seventh Edition; National Fire Protection Association, Inc.; 1997; pp. 4-11(Return to text)

4. Colvin, Raymond J.; "Property and Process Loss Control" in *The Guidebook to Basic Safety Programming*; Safety Training Dynamics, Inc.; 1983; p. 17.2-15. (Return to text)

5. Warren, David and Ros McIntosh; Topic D-2, p. 1. (Return to text)

6. Warren, David and Ros McIntosh; Topic D-2, p. 6 .(Return to text)

7. Colvin, Raymond J.; p. 12-6. (Return to text)

8. Warren, David and Ros McIntosh; Topic D-2, p. 7. (Return to text)

9. Warren, David and Ros McIntosh; Topic D-2, p. 8. (Return to text)

10. Colvin, Raymond J.; p. 12-7. (Return to text)

11. Colvin, Raymond J.; p. 12-8. (Return to text)

12. Colvin, Raymond J.; p. 12-10. (Return to text)

13. Roos, Nestor R. and Joseph S. Gerber; "Loss Control and Safety" in *Governmental Risk Management Manual*, Volume 1; Risk Management Publishing Company; December 31, 1996; p. 5-56. (Return to text)

14. Roos, Nestor R. and Joseph S. Gerber; pp. 10-70 - 10-72.(Return to text)

15. Warren, David and Ros McIntosh; Topic D-4, p. 1. (Return to text)

16. Colvin, Raymond J.; p. 12-3. (Return to text)

17. Warren, David and Ros McIntosh; Topic D-4, p.2. (Return to text)

18. Texas Tort Claims Act, Civil Practice and Remidies Code, Title 5, Subchapter B, section 101.022 and Subchapter C, Section 101.060. (Return to text)

19. Government Code, Title 10, Subtitle D, Section 2155.069 (Vernon Pamphlet 1998).(Return to text)

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Section Two - Employee Safety and Health Program
Chapter 7
Occupational Health Program
Subchapter 7.12
Hazard Communication Program
Revised: December 2004

Volume III:

This chapter of Risk Management for Texas State Agencies supplies general information regarding state agency occupational health exposures, and techniques and methods to manage and control those exposures. It also identifies additional resources that may be available to assist state agencies in developing or enhancing its occupational health program. This chapter is not intended in any way to be a substitute for the advice and guidance of legal counsel, who should always be consulted regarding rights, duties, and responsibilities under the law.

The Texas Legislature in 1993 revised the Texas Hazard Communication Act (HCA), Chapter 502 of the Health and Safety Code.1 The Act applies to public employers over whom OSHA does not have jurisdiction, including the state (which includes all state agencies) and its political subdivisions, public schools, colleges and universities, river authorities and publicly owned utilities, and volunteer emergency service organizations.

Essentially, the HCA provides employees access to information on hazardous chemicals to which they may be exposed. The central concept behind the Act is the "right-to-know." State agencies are required to notify employees of the law and their rights, provide training as needed on the hazards and safe use of chemicals in their workplaces, provide appropriate protective equipment, make material safety data sheets (MSDSs) readily available to employees, ensure that chemical containers are labeled, and prepare workplace chemical lists if hazardous chemical inventories exceed 55 gallons or 500 pounds.

A companion Act, the Public Employer Community Right-to-Know Act, Chapter 506 of the Health and Safety Code, addresses the requirements of a public employer to inform the surrounding community of potential chemical hazards to which the community may be exposed. The Act also provides for access to hazard information for emergency response personnel and the director of the Texas Department of Health (TDH).

Guidelines for Loss Prevention and Control

The following summarizes the minimum requirements of the HCA that state agencies must implement, if hazardous chemicals exist in the agency's workplace.

Posting Notice - The agency must post a notice and maintain the TDH Notice to Employees regarding the Texas Hazard Communication Act as specified in the Texas Administrative Code, Title 25, Part 1, Chapter 295, Subchapter A, Rule 295.12.

- **Written Program** - The agency must develop, implement, and maintain at the workplace a written hazard communication program for the workplace that describes how the criteria specified in Chapter 502 of the Health and Safety Code will be met.(2) The agency should identify responsible staff to implement and administer their hazard communication program.

- **Workplace Chemical List** - The agency must compile and maintain a workplace chemical list that contains the following information for each hazardous chemical normally present in the workplace or temporary workplace in excess of 55 gallons or 500 pounds:
    - The identity used on the MSDS and container label, and
    - The work area in which the hazardous chemical is normally present.

  The workplace chemical list must be updated as necessary but at least by December 31 of each year. Each workplace chemical list should be dated and signed by the person responsible for compiling the information.

  The workplace chemical list may be prepared for the workplace as a whole or for each work area or temporary workplace and must be readily available to employees and their representatives.

  All employees shall be made aware of the workplace chemical list before working with or in a work area containing hazardous chemicals.

  The workplace chemical list must be maintained by the agency for at least 30 years. Complete records must be sent to the Texas Department of Health if the agency ceases to operate.(3)

- **Material Safety Data Sheets** - Chemical manufacturers or distributors must provide appropriate material safety data sheets (MSDSs) to employers who acquire hazardous chemicals in this state with each initial shipment and with the first shipment after an MSDS is updated. The MSDSs must conform to the most current requirements of the OSHA standard.

  State agencies must maintain a legible copy of a current MSDS for each hazardous chemical purchased. If the agency does not have a current MSDS for a hazardous chemical when the chemical is received at the workplace, the agency must request an MSDS in writing from the manufacturer or distributor in a timely manner or shall otherwise obtain a current MSDS.

  Material safety data sheets must be readily available, on request, for review by employees or designated representatives at each workplace. If the Texas Department of

Health requests a copy of an MSDS maintained by an agency, the copy must be provided. (4)

- **Labels** - A label on an existing container of a hazardous chemical may not be removed or defaced unless it is illegible, inaccurate, or does not conform to the OSHA standard (29 CFR 1910.1200(f)) or other applicable labeling requirement. Primary containers must be relabeled with at least the identity appearing on the MSDS, the pertinent physical and health hazards, including the organs that would be affected, and the manufacturer's name and address. Secondary containers must be relabeled with at least the identity appearing on the MSDS and appropriate hazard warnings. An employee may not be required to work with a hazardous chemical from an unlabeled container except for a portable container intended for the immediate use of the employee who performs the transfer.(5)

- **Employee Education Program** - The agency must maintain a written education and training program for employees who use or handle hazardous chemicals. The education and training program must include, as appropriate
    - Information on interpreting labels and MSDSs and the relationship between those two methods of hazard communication
    - The location by work area, acute and chronic effects, and safe handling of hazardous chemicals known to be present in the employee's work area and to which the employees may be exposed
    - The proper use of protective equipment and first- aid treatment to be used with respect to the hazardous chemicals to which the employees may be exposed
    - General safety instructions on the handling, cleanup procedures, and disposal of hazardous chemicals.

  Training may be conducted by categories of chemicals. The agency must advise employees that information is available on the specific hazards of individual chemicals through the MSDSs. Protective equipment and first-aid treatment may be by categories of hazardous chemicals.

  Supervisors should act as helpers and trainers for employees with poor English or reading skills to assist them in understanding how to use chemicals properly and how to avoid misusing them. Training is essential and may involve teaching employees in their native language, if necessary.

  An agency must provide additional instruction to an employee when the potential for exposure to hazardous chemicals in the employee's work area increases significantly or when the agency receives new and significant information concerning the hazards of a chemical in the employee's work area. The addition of new chemicals alone does not necessarily require additional training.

  An agency must provide training to a new or newly assigned employee before the

employee works with or in a work area containing a hazardous chemical. The agency must keep the written communication program and a record of each training session given to employees, including the date, a roster of the employees who attended, the subjects covered in the training session, and the names of the instructors. Those records must be maintained for at least five years by the agency. The Texas Department of Health shall have access to those records and may interview employees during inspections.

Emergency service organizations shall provide, to their members or employees who may encounter hazardous chemicals during an emergency, information on recognizing, evaluating, and controlling exposure to the chemicals.

As part of an outreach program created in accordance with Section 502.008 of the Health and Safety Code, the director of TDH is required to develop an education and training assistance program to assist employers who are unable to develop the programs because of size or other practical considerations. The program must be made available to those employers on request.(6)

- **Reporting Fatalities and Injuries** - Within 48 hours after the occurrence of an employee accident that directly or indirectly involves chemical exposure, or that involves asphyxiation, and that is fatal to one or more employees, or results in the hospitalization of five or more employees, the employer (state agency) of any of the employees so injured or killed must report the accident either orally or in writing to the Texas Department of Health, Toxic Substances Control Division, Hazard Communication Branch. This report shall relate the circumstances of the accident, the number of fatalities, and the extent of any injuries. If it is necessary to complete the investigation of an incident, TDH may require additional reports in writing as necessary.7 The State Office of Risk Management (Office) should also be notified of any state agency fatalities. TDH's Hazard Communication Branch recommends that a report be made to the Bureau of Disease Control and Epidemiology at TDH, since that bureau also has a program that accumulates information on any injuries or deaths related to chemical incidents.

- **Employee Notice; Rights of Employees** - The agency must post and maintain adequate notice, at locations where notices are normally posted, informing employees of their rights under Chapter 502 of the Health and Safety Code. If the director of TDH does not prepare the notice under Section 502.008, the employer must prepare the notice. A sample notice is provided as an appendix to this guideline chapter.

- An agency may not discharge, cause to be discharged, otherwise discipline, or in any manner discriminate against an employee because the employee has
    - Filed a complaint
    - Assisted a TDH inspector who may make or is making an inspection under Section 502.011 of the Health and Safety Code
    - Instituted or caused to be instituted any proceeding under or related to Chapter 502

- Testified or is about to testify in a proceeding under Chapter 502
- Exercised any rights afforded under Chapter 502 on behalf of the employee or on behalf of others.

An employee's pay, position, seniority, or other benefits may not be lost as the result of the exercise of any right provided by Chapter 502. A waiver by an employee of the benefits or requirements of Chapter 502 is void. An agency's request or requirement that an employee waive any rights under Chapter 502 as a condition of employment is a violation of this chapter.8

Investigations and Penalties

Provisions are made for TDH to investigate complaints made by an employee or an employee's designated representative against an agency that is alleged to have violated Chapter 502 of the Health and Safety Code. Administrative, civil, and/or criminal penalties may be assessed, ranging from $500 per each violation (administrative penalty), to $2,000 per day with a total not to exceed $20,000 for civil violations, to $10,000 per violation not to exceed $100,000 for criminal violations.(9)

Checklist for
Essential Program Elements

1. Does the agency have a written hazard communication (HAZCOM) program?	Yes	No
2. Does the agency compile and maintain a workplace chemical list?	Yes	No
3. Are legible copies of material safety data sheets (MSDSs) maintained for each hazardous chemical purchased/used?	Yes	No
4. Are MSDSs made readily available for review by the employee on request?	Yes	No
5. Are all hazardous chemicals properly labeled with the identity appearing on the MSDS, pertinent physical and health hazards, and the manufacturer's name and address?	Yes	No
6. Are secondary containers relabeled with the identity appearing on the MSDS and appropriate hazard warnings?	Yes	No
7. Does a written employee education program exist?	Yes	No
8. Does the employee education program include, as appropriate		
a. Information on interpreting labels and MSDSs and the relationship between those two methods of hazard communication?	Yes	No
b. The location by work area, acute and chronic effects, and safe handling of hazardous chemicals known to be present in the employee's work area and to which the employee may be exposed?	Yes	No

c. The proper use of protective equipment and first-aid treatment to be used with respect to the hazardous chemicals to which the employee may be exposed?	Yes	No
d. General safety instructions on the handling, cleanup procedures, and disposal of hazardous chemicals?	Yes	No
9. Is additional instruction to an employee provided when the potential for exposure to hazardous chemicals in the employee's work area increases significantly?	Yes	No
10. Is additional instruction to the employee provided when the agency receives new and significant information concerning the hazards of a chemical in the employee's work area?	Yes	No
11. Does the agency provide training to a new or newly assigned employee before the employee works with or in a work area containing a hazardous chemical?	Yes	No
12. Is a record kept of each training session given to employees, including the date, a roster of the employees who attended, the subjects covered, and the names of instructors?	Yes	No
13. Are training records kept for at least five years?	Yes	No
14. Are procedures in place to report to the Texas Department of Health within 48 hours the occurrence of an employee accident that directly or indirectly involves asphyxiation, and that is fatal to one or more employees, or results in hospitalization of five or more employees?	Yes	No
15. Does the agency post and maintain adequate notice, at locations where notices are normally posted, informing employees of their rights under Chapter 502 of the Health and Safety Code?	Yes	No
16. Are procedures in place to avoid the discharge, discipline, or discrimination against an employee that has filed a complaint, assisted a TDH inspector, instituted or testified in a proceeding, or exercised any rights under Chapter 502 of the Health and Safety Code?	Yes	No

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Additional Resources for Texas State Agencies

Publications

Texas Administrative Code, Title 25, Chapter 295 - Occupational Health, Sections 295.1-295.10 (Hazard Communication)

"TNRCC Rules," Publication, GI-32 (May 1995)
Texas Natural Resource Conservation Commission

P.O. Box 13087
Austin, TX 78711-3087
(512) 239-0010
FAX: (512) 239-0055

Chemical Hazard Communication, Publication, OSHA 3084 (Rev. 1994)

U.S. Department of Labor/OSHA
OSHA Publications
P.O. Box 37535 Washington, D.C. 20013-7535
Telephone: (202) 693-1888
or by Fax: (202) 693-2498
You Have a Right to Know, Publication, #200 106 00 (1993)
Business & Legal Reports, Inc.
39 Academy Street
Madison, CT 06443-1513
(203) 245-7448
(800) 727-5257

Videos (English and Spanish) and Education/Training Materials, available through

Workers' Health and Safety Resource Center
Texas Workers' Compensation Commission

7551 Metro Center Drive, Suite 100, MS 25
Austin, TX 78744
(512) 804-4622FAX (512) 804-4621
E-mail: Resource.Center@twcc.state.tx.us

Agencies and Organizations Providing Assistance

Texas Department of Health
Product Safety, Hazard Communication Branch
Hazard Communication Branch
1100 West 49th Street
Austin, TX 78756
(800) 452-2791
(512) 834-6603

Tier Two Help Line

Dial Toll Free in Texas: 1-800-452-2791
Alternate and out of state: (512) 834-6603
Environmental Epidemiology and Toxicology Division
Bureau of Epidemiology
Toll Free Number: 1(800) 588-1248
Fax: (512) 458-7222

Texas Engineering Extension Service (TEEX)
Occupational and Environmental Safety Training Division
The Texas A&M University System
301 Tarrow
College Station, TX 77840-7896
Phone: 979-458-6800
Chemical Manufacturers Assn. (CMA)
1850 M Street NW, Suite 700
Washington , D.C. 20036-5810
Telephone: (202) 721-4100 Fax: (202) 296-8120

Endnotes

1. Hazard Communication Act, *Vernon's Texas Codes Annotated*, Health and Safety Code, Title 6, Subtitle D, Chapter 502 (Vernon 1996).

2. Health and Safety Code, §502.009(b).

3. Health and Safety Code, §502.005.

4. Health and Safety Code, §502.006.

5. Health and Safety Code, §502.007.

6. Health and Safety Code, §502.009.

7. Health and Safety Code, §502.012.

8. Health and Safety Code, §502.017.

9. Health and Safety Code, §§502.014-502.016.

NOTICE TO EMPLOYEES

The Texas Hazard Communication Act (revised 1993), codified as Chapter 502 of the Texas Health and Safety Code, requires public employers to provide employees with specific information on the hazards of chemicals to which employees may be exposed in the workplace. As required by law, your employer must provide you with certain information and training. A brief summary of the law follows.

WORKPLACE CHEMICAL LIST

Employers must develop a list of hazardous chemicals used or stored in the workplace in excess of 55 gallons or 500 pounds. This list shall be updated by the employer as necessary, but at least annually, and made readily available for employees and their representatives on request.

MATERIAL SAFETY DATA SHEETS

Employees who may be exposed to hazardous chemicals shall be informed of the exposure by the employer and shall have ready access to the most current material safety data sheets, which detail physical and health hazards and other pertinent information on those chemicals.

EMPLOYEE EDUCATION PROGRAM

Covered employees shall receive training by the employer on the hazards of the chemicals and on measures they can take to protect themselves from those hazards, and shall be provided with appropriate personal protective equipment. This training shall be provided as needed. Employers shall also provide training to new or newly assigned employees before the employees work with or in a work area

LABELS

Employees shall not be required to work with hazardous chemicals from unlabeled containers, except portable containers for immediate use, the contents of which are known to the user.

EXEMPTIONS

The following chemicals are exempt from coverage by this act: articles that do not normally release hazardous chemicals, food, drugs, cosmetics, hazardous waste, tobacco and tobacco products, wood or wood products, consumer products used in the same manner as normal consumer use, and radioactive waste.

REPORTING FATALITIES OR INJURIES

Employers must report to the department within 48 hours the occurrence of a chemical accident that results in one or more employee fatalities or results in the hospitalization of five or more employees.

EMPLOYEE RIGHTS

Employees may file complaints with the Texas Department of Health at the toll free

containing a hazardous chemical.

number below, and may not be discharged or discriminated against in any manner for the exercise of any rights provided by this act.

EMPLOYERS MAY BE SUBJECT TO ADMINISTRATIVE PENALTIES AND CIVIL OR CRIMINAL FINES RANGING FROM $50 TO $100,000 FOR EACH VIOLATION OF THIS ACT.

Further information may be obtained from: 1-800-452-2791 (512) 834-6600

Texas Department of Health
Division of Occupational Health
Hazard Communication Branch
1100 West 49th Street
Austin, Texas 78756

3/94
This notice is subject to approval by the Texas Board of Health.

AVISO A TRABAJADORES

La ley de comunicación de Peligros de Texas (revisada en 1993); codificada como Capitulo 502 de el Código de Seguridad de Salud de Texas, requiere que los empleadores publicos proveen a trabajadores con información especifica sobre los peligros de químicos a los cuales los trabajadores pueden ser expuestos en el lugar de trabajo. Como es requerido por ley, su empleador debe de proveerle con cierta información y capacitación. Un breve resumen de la ley sigue:

LISTA DE QUIMICOS EN EL TRABAJO

Los **empleadores** deberán desarrollar una lista de los químicos peligrosos que se usan o se guardan en el lugar de trabajo en exceso de 55 galones o 500 libras. Esta lista debe de tener toda la información al corriente segun vaya siendo necesario o por lo menos una vez al año y ser disponible para los **trabajadores** cuando ellos lo requieran.

HOJAS DE INFORMACION EN EL RECIPIENTE

Si los recipientes que contienen químicos no tienen una hoja de información donde explica que contenido tiene el recipiente, el trabajador no deberá de ser requerido a usar químicos no identificados. Una excepción es el uso inmediato de los recipientes portatiles los cuales el trabajador tiene conocimiento del contenido.

HOJAS DE INFORMACION DE SEGURIDAD SOBRE MATERIALES PELIGROSOS

Los **trabajadores** deben de ser informados sobre el posible riesgo de estar expuestos a químicos potencialmente peligrosos, por medio de las hojas de información de seguridad sobre materiales peligrosos que el empleador deberá de proveerles.

PROGRAMA DE EDUCACION PARA EL TRABAJADOR

Los **trabajadores** que pueden ser expuestos a químicos peligrosos deberán de recibir capacitación de su empleador sobre los químicos peligrosos y sobre las medidas de protección que deben de tomar para poder protegerse de estos peligros. Los **trabajadores** deberán de ser previstos con equipo de protección personal apropiado. Esta capacitación deberá de ser prevista cada y cuando sea necesario. Los **empleadores** deberan de preveer capacitación a los **trabajadores** nuevos o a los trabajadores recién asignados antes de que el **trabajador** comience a trabajar con o en una área de trabajo que contenga químicos peligrosos.

EXEPCIONES

No es requerido por esta ley el proveerle con información o protección sobre los siguientes químicos: artículos que normalmente no expiden químicos peligrosos, alimentos, drogas, cosméticos, desechos peligrosos, tabaco y productos de tabaco, madera y productos de madera, productos de consumidor usados en la misma manera que normalmente se usan en el hogar y desechos radioactivos.

REPORTANDO FATALIDADES O LASTIMADURAS

Los empleadores deberán de reportarle al Departamento de Salud de Texas, dentro de 48 horas sobre el accidente de químico ocurrido con el resultado de una o más fatalidades de trabajadores o la hospitalización de cinco o más trabajadores.

DERECHOS DEL TRABAJADOR

El trabajador puede someter sus quejas a el Departamento de Salud de Texas, y no podrá ser despedido o descriminado de ningúna manera por ejercer los derechos que se proveen por medio de ésta ley. Pueden llamar sin costo alguno al numero que se encuentra abajo.

EL EMPLEADOR PUEDE SER SUJETO A PENAS CIVILES O CRIMINALES DESDE $50 A $100,000 DOLARES POR CADA VIOLACION DE ESTA LEY.

Para obtener más información puede llamar o escribir al: 1-800-452-2791 (512) 834-6600

Texas Department of Health

Division of Occupational Health
Hazard Communication Branch
1100 West 49th Street
Austin, Texas 78756

9/94

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Section Two - Employee Safety and Health Program
Chapter 7
Occupational Health Program
Subchapter 7.13
Hazardous Materials Management Program (HAZMAT)
Released: December 2004

Volume III:

This chapter of Risk Management for Texas State Agencies supplies general information regarding state agency occupational health exposures, and techniques and methods to manage and control those exposures. It also identifies additional resources that may be available to assist state agencies in developing or enhancing its occupational health program. This chapter is not intended in any way to be a substitute for the advice and guidance of legal counsel, who should always be consulted regarding rights, duties, and responsibilities under the law.

Hazardous materials (HAZMAT) are any materials, chemicals, or wastes that would have an adverse effect on either the environment or on human health if released into the environment in a specific volume, quantity, or amount. These types of materials include chemicals that are ignitable, reactive, corrosive, and toxic.1 OSHA defines a hazardous substance as any designated substance to which exposure results or may result in adverse safety or health effects. A hazardous material includes any substance defined under Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); any biological agent or other disease-causing agent defined in Section 104(33) of CERCLA; and, any substance listed by the Department of Transportation and regulated as hazardous materials under 49 CFR 172.101.2 It can be unusual chemicals or such common items as charcoal, matches, lighter fluid, or printer's ink.

This chapter describes the hazardous materials, regulatory agencies, problem areas, and methods of control for state agencies. State agency employees may use or come in contact with various chemicals or materials that are classified as hazardous. Such hazardous chemicals and materials create risk exposures to agency employees, members of the general public, and/or to the environment. If such hazardous materials exposures exist, a state agency should develop a program to guide the agency and its employees in appropriate procedures for safe use, handling, transporting, and disposal of these materials.

Rules to keep the process safe are found in 49 CFR Parts 171-180. Rules for the installation of bulk oxygen systems are in 29 CFR 1910.104. Section 1910.106 applies to any establishment handling flammable and combustible liquids having flashpoints at or above 100oF. The LP gas standard, Section 1910.110, covers the storage, handling, and use of LP gas, including use with commercial vehicles.

Section 1910.119, Process Safety Management of Highly Hazardous Chemicals, requires employers to implement safety management practices that protect workers from the consequences of chemical accidents. The final rule on hazardous waste operations, Section 1910.120, was added to protect employees at hazardous waste sites, including employees who respond to hazardous substance emergencies.3 The Superfund Amendments and Reauthorization Act of 1986 (SARA) created a standard governing safety and health practices for hazardous materials handling. The Resource Conservation and Recovery Act (RCRA) created the "cradle to grave" system for handling hazardous waste. This law (1) tells what hazardous wastes are and how to keep track of them; (2) sets up rules for handling hazardous wastes safely; and (3) establishes a documentation system to track each hazardous waste from generation to disposal.

Volume III, Section Two, Chapters 5 and 7.12 of *Risk Management For Texas State Agencies* contain several sections on hazardous chemicals, hazardous waste, hazard communication, and transportation of hazardous materials. These chapters discuss areas of responsibility and reference enabling legislation and rules. Telephone numbers are included to request further information. Examples of chemical hazards, along with hazardous characteristics, and the definitions of the types of hazardous waste generators are also provided.

Types of Hazardous Materials

The following are types of hazardous materials:

- Chemical
- Biological/medical waste
- Radiological.

Chemicals

Chemicals can be hazardous in the following ways:

- **Toxic** - Most chemicals are toxic at some level of exposure. Fumes, dusts, and vapors from toxic materials can be especially harmful as they can be inhaled and pass quickly from the lungs into the blood, allowing the poisons to circulate throughout the body.

- **Corrosive** - Materials like acids and bases that can eat through other substances are considered corrosive. If splashed on the skin or in the eyes, they can cause serious burns. Some of these materials can break down into poisonous gases, making them doubly hazardous.

- **Explosive** - These types of materials can explode when exposed to heat or flame. Examples of these materials are flammable liquids and compressed gases.

- **Flammable** - Materials that catch fire easily, burn rapidly, spread quickly, and give off intense

heat. Many solvents and lubricants are flammable such as propane and acetylene.

- **Reactive** - Reactive materials burn spontaneously and give off vapors that can be hazardous if inhaled. These materials have to be isolated, stored in special containers, and used with extreme caution. Some can burn when exposed to air or water; some burn when mixed with other substances.4

The National Fire Protection Association (NFPA) provides a means for classifying hazardous chemicals. This classification can be accomplished through the use of the NFPA fire diamond.

- The NFPA fire diamond ("704 diamond") employs a basic symbol- and number-based system that is intended for use on fixed installations, like the following: storage tanks and bins, storage rooms and warehouses, entrances to laboratories, and chemical processing equipment. The system is designed for the benefit of firefighters.

- The "704 diamond" system is a visual representation of the health, flammability, and self-reactivity hazard categories, as well as the severity degree of each of these hazard categories. The degree of hazard (number) used in the diamond is assigned based on the worst hazard expected in the area, whether from the original material or from products resulting from the original material's breakdown or combustion. It is also important to consider the effects of local conditions.5

For more details concerning the NFPA fire diamond, refer to NFPA 704, Standard System for the Identification of the Fire Hazards of Materials, and the graphic examples at the end of this chapter.

In addition to the hazardous material information obtained from the fire diamond, material safety data sheets (MSDSs) must also be available for all chemicals in the workplace. For more information concerning MSDSs, refer to Volume III, Section Two, Chapter 7.12 (Hazard Communication Program [HAZCOM]).

Biological/Medical Waste

Employees working in a laboratory (clinical, microbiological, or medical research) are subject to hazards created by the handling and manipulation of infectious agents. Administrative policies, work practice controls, and engineering controls are necessary to prevent exposure to these agents. For more information on laboratory safety, refer to Volume III, Section Two, Chapter 7.16 of these guidelines.

A hospital has many type of hazards. Chemical hazards include such things as waste anesthetic gases and cleaning materials. Biological hazards include exposure to bacteria, viruses, infectious aerosols, and bloodborne pathogens. Employees who work in laundry, housekeeping, and the laboratory are particularly at risk. Routes of entry for these agents include inhalation, ingestion, injection, and

absorption through the skin. Improperly managed sharps are the main cause of bloodborne pathogen exposures.

Biological/medical exposures also occur in agriculture. The biohazard sources are the diseases that both animals and humans share. Among the most common diseases are anthrax, brucellosis, tetanus, rabies, and salmonellosis. The infection enters the body through ingestion, inhalation, or through skin and mucous membranes. Employees who work with animals are prime targets.6

Radiological

The human body can tolerate a certain amount of exposure to radiation without damage to any organ. Effects on the organs or tissues depend on the type and energy of the radiation and the length of time in the body. There are two types of injurious effects associated with ionizing radiation: somatic (injury to individuals) and genetic (changes passed on to future generations). The maximum dose for an adult worker is 5 rem per year, but exposures should be kept to a minimum.7

Devices available for radiation monitoring and measurement are: film badge, pocket dosimeter, ionization chambers, and Geiger-Mueller counters. Calibration of ionization chambers and Geiger-Mueller counters should be done by experts.8

Guidelines for Loss Prevention and Control

A state agency should first conduct an internal, comprehensive inventory of all hazardous waste, materials, and chemicals at the agency. The inventory must be updated as necessary, but should be done annually at the very least. (Refer to Volume III, Section Two, Chapter 7.12 of these guidelines for complete information.) This initial step is important in determining the scope of an agency's hazardous waste and materials program.

Training

Any agency that has hazardous materials must be aware and make employees aware of the associated exposures. Training and supervision must ensure that each employee

- Reads labels and material safety data sheets before working with a chemical
- Uses protective clothing and equipment
- Follows procedures
- Practices good hygiene
- Knows what to do in an emergency
- Is thoroughly trained.(9)

A regulation issued under docket number HM-126F, which covers Training for Safe Transportation of Hazardouc Material, requires that all individuals who transport, or affect the safe transportation of hazardous materials receive training in their safe handling, storage, and transportation.

Training is the most crucial element. If employees are not thoroughly familiar with the hazards connected with the materials they are handling, as well as the required procedures for safety, then incidents are certain to occur. Recent studies of hazardous materials incidents have concluded that human error was the primary cause in over 60% of all spills.10

Spills

In case of spills, follow these procedures:

- Evacuate the area.
- Notify the emergency coordinator.
- Stay out of the area unless assigned to a clean-up team and trained.11

For reporting discharges, spills, and releases and getting technical guidance, contact the Texas Commission on Environmental Quality (TCEQ), Emergency Response Unit at 512-239-2508 or 1-800-832-8224.

Once a spill has been cleaned up, it is necessary to properly dispose of the spilled materials according to Environmental Protection Agency (EPA) guidelines (40 CFR Parts 260-280).

A provisional plan for safe cleanup of spillage and safe disposal of contaminated materials should be posted in the storage area. Storage areas containing ignitable, reactive, or incompatible wastes should be readily accessible to

- Internal emergency personnel (fire fighters or spill response teams)
- Outside organizations that might be called on to provide emergency services.12

Also, security precautions should be taken to prevent unauthorized entry into the storage area.

Storing Hazardous Materials

The primary constraints of hazardous materials storage deal with the safety of workers, equipment, and

structures in the event of a release, fire or explosion, or mixing of incompatible wastes. Ignitable and reactive wastes should be protected from processes or operations that could act as sources of ignition (e. g., cutting and welding). Flammable liquids should be stored according to the standards in NFPA 30, Flammable and Combustible Liquids Code.13

The storage area of chemical wastes or other hazardous materials should be well ventilated.14 Installing an exhaust fan or other type of ventilation can reduce the risk of fire and explosion. Whatever type of ventilation is provided, care should always be exercised to prevent exhausted air from reentering the building through doors, windows, and air intakes on the building's ventilation system. Also, proper respiratory protection should be provided for employees who may be exposed to vapors or fumes.15

Portable containers (drums, barrels, carboys) of liquid chemicals should be properly stored. As a rule, only a minimum amount of flammable liquid should be kept at the point of operation (enough for use on one shift). The main stock should be stored in a safe, isolated place. Corrosive or highly toxic liquids should be isolated by impervious walls and flooring. To protect workers and equipment, a separate building or specially constructed chemical storage room should be used for storage of different materials. When this is not feasible, different materials should be stored in separate, designated areas that are divided by wide aisles.16

Containers used for collecting hazardous waste must meet the Department of Transportation (DOT) standards. The containers should not show signs of deterioration and should be capable of being completely sealed. Containers can be reused only to transport waste from the same wastestream.17

For more information concerning labeling of hazardous wastes, state agencies can also refer to EPA's rules in 40 CFR Part 261 - Identification and Listing of Hazardous Waste.

The Hazard Communication standard [29 CFR 1910.1200(f)] requires that warning labels be placed on all packages and containers in the workplace that contain hazardous chemicals or other dangerous materials.18 Read all labels carefully. If no label is present, do not use the materials.

Weather is an important factor in determining storage conditions. Heat, cold, moisture, and wind can have adverse affects on the safe storage of chemicals. Weather conditions can cause labels to deteriorate, which increases the risk of improper handling and disposal.19

Storing flammable materials outside in drums during a hot summer can present problems, such as the following:

- Pressure buildup from high temperatures can damage a container's integrity if venting is not provided.

- Pressure buildup can result in the "spraying" of hazardous waste on an employee who unknowingly opens a drum to add more waste.20

If waste materials have to be stored outside, cover with a roof or tarpaulin, away from direct sunlight. Drums or other containers should be stored on pallets, or kept off the ground. Secondary containment devices (berms, dikes, trays, liners) should be provided in the event of a leak or spill. Ideally these devices should be capable of holding at least 10 to 15% of the total volume of the stored containers.21

Storage area locations are often regulated by the following:

- State and local fire codes
- Building codes, or
- Zoning ordinances.22

If an exterior storage area is used, it should be located a minimum distance from the following:

- Buildings and property lines
- Streets and alleys
- Public ways or exits to a public way.23

State agencies can also refer to the following NFPA standards: NFPA 231, Standards for General Storage; and NFPA 82, Standards on Incinerators, Waste and Linen Handling Systems and Equipment.

Transportation and Disposal of Hazardous Materials

The information contained in this section was extracted from the TNRCC publication entitled *Hazardous Waste Regulations for Small Quantity Generators, A Handbook for Small Business,* which as of this writing is under revision. For complete information and assistance, contact TNRCC.

The three most important things to remember when shipping hazardous waste off-site are the following:

1. Choose a hauler and facility that have Environmental Protection Agency (EPA) identification numbers.

2. Package and label the wastes for shipping.

3. Prepare a hazardous waste manifest.

Under federal regulations, if an agency is a 100-1000 kg/mo generator, hazardous wastes are allowed to accumulate on the premises without a permit for up to 180 days (270 days if wastes must be shipped more than 200 miles), as long as the agency never accumulates more than 6000 kilograms. These limits are set to make shipping and disposal more economical.

- **Choosing a Hauler and Facility** - Before choosing a hauler or designating a facility, check

with the following sources:

- The TCEQ or the EPA regional office, which will have information on whether a company has a U.S. EPA Identification Number, and may know whether the company has had any problems
- Friends and colleagues who may have used a specific hazardous waste hauler or designated facility in the past
- Trade associations, which may keep a file on companies that handle hazardous wastes
- The Better Business Bureau or Chamber of Commerce for information on any complaints registered against a hauler or facility.

- **Packaging and Labeling** - Regulations allow hauling of hazardous waste to a designated facility by the agency itself. The agency must obtain a state and EPA transporter identification number and comply with the DOT regulations (49 CFR Part 172) for packaging, labeling, marking, and placarding the shipment. The agency may be exempt from the financial responsibility and liability requirements under the Federal Motor Carrier Act if it does the following:
  - Uses a vehicle (van or pick-up truck) with a gross vehicle weight rating of less than 10,000 pounds
  - Transports wastes for commerce within the state in non-bulk shipments (i.e., containers with capacities of less than 3,500 gallons)
  - Transports hazardous wastes that meet the "limited quantity exclusion" requirements of Section 172.101 of the DOT regulations.

- **Preparing a Manifest** - A hazardous waste manifest is a multicopy shipping document that must be completed and used to accompany an agency's hazardous waste shipments.

  The manifest form is designed so that shipments of hazardous waste can be tracked from the point of generation to the final destination -- the so-called "cradle to grave" system. The following parties must sign and keep a copy of the manifest

  - Hazardous waste generator

  - Hauler

  - Designated facility.

  The designated facility operator must return a copy to the agency as confirmation that the shipment arrived. This copy, which is signed by the hauler and the designated facility, must be kept on file for three years.24

Checklist for Essential Program Elements

1. Does the agency have any operations that produce biological and/or medical wastes?	Yes	No
2. Does the agency have a written hazardous waste program?	Yes	No
3. Are employees trained on proper disposal of hazardous waste?	Yes	No
4. Are procedures available for the removal, transportation, and disposal of hazardous waste?	Yes	No
5. Has the agency conducted an internal, comprehensive inventory of all chemicals and hazardous materials?	Yes	No

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Additional Resources for Texas State Agencies

Publications

Vernon's Texas Codes Annotated, Water Code, Title 2, Subtitle D, Chapter 26 - Water Quality Control, Sections 26.039, 26.121, and 26.262-26.268

Texas Administrative Code, Title 30, Chapter 327 - Spill Prevention and Control

Texas Administrative Code, Title 25, Chapter 295 - Occupational Health, Section 295.102 (Occupational Health Rules and Guidelines)

Hazardous Waste Regulations for Small Quantity Generators, A Handbook for Small Business Rules and Regulations for Small-Quantity Generators (RG 234, PDF Version Revised October 1999)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087
(512) 239-1000

Occupational Safety and Health Standards - 29 CFR Part 1910, Subpart H - Hazardous Materials, Sections 1910.101-1910.120; amended March 7, 1996
U.S. Department of Labor (OSHA)
525 Griffin Street, Room #602
Dallas, TX 75202
(214) 767-4731

Research and Special Programs Administration, Department of Transportation, Title 49, Subchapter C - Hazardous Materials Regulations, Parts 171-180
For mail orders:

Superintendent of Documents
Attention: New Orders
P.O. Box 371954
Pittsburg, PA 15250-7954

For telephone orders:

Washington, D.C.
(202) 512-1800

1996 North American Emergency Response Guidebook, A Guidebook for Initial Responders During the Initial Phase of a Hazardous Materials/Dangerous Goods Incident(October 1996)
U.S. Department of Transportation
Research and Special Programs Administration
400 Seventh Street, S.W.
Washington, DC 20590-0001
(202) 366-8553
(800) 467-4922

Fire Protection Guide to Hazardous Materials Publication, NFPA No. HAZ-91 (10th Edition 1991); contains complete text of NFPA 49, 325M, 491M, and 704
National Fire Protection Association (NFPA)
1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9101
(800) 344-3555

Transportation of Hazardous Materials (Second Edition, 1992)
Government Institutes, Inc.
4 Research Place, Suite 200
Rockville, MD 20850
(301) 921-2300

Videos (English and Spanish) and Education/Training Materials, available through:

TWCC Resource Center
Texas Workers' Compensation Commission
Southfield Building
4000 South IH-35
Austin, TX 78704-7491
(512) 440-3993

Agencies and Organizations Providing Assistance

Texas Natural Resource Conservation Commission
Office of Waste Management
Industrial and Hazardous Waste Division
P.O. Box 13087
Austin, TX 78711-3087
(512) 239-2334

Emergency Response Unit
(512) 239-2508
(800) 832-8224 (environmental release hot line)

Pollution Clean-Up Division
(512) 239-2454
(512) 463-7727 (24-hour hot line)

Texas Engineering Extension Service (TEEX)
Occupational and Environmental Safety Training Division
The Texas A&M University System
College Station, TX 77843-8000
(800) 252-2420
(409) 845-3418

American Institute of Hazardous Materials Management
900 Isom Road, Suite 103
San Antonio, TX 78216-4102
(800) 729-6742

Chemical Transportation Emergency Center (CHEMTREC)
c/o Chemical Manufacturers Association (CMA)
2501 M Street, NW
Washington, DC 20037
(202) 887-1255
(800) 424-9300

Endnotes

1. McGovern, G. J. and P. T. Vavala; "Storing Hazardous Materials"; *NFPA Journal;* September/ October 1994; Volume 88, Number 5; p. 73.

2. "Hazardous Materials" in *OSHA Reference Manual - Occupational Safety & Health Compliance Simplified,* Volume 1; The Merritt Company; 1993; p. H-v.

3. "Hazardous Materials"; pp. H-i - H-ii.

4. *Play It Safe...Handle Hazardous Materials with Care;* Bureau of Business Practice, Inc.; Publication, HZB; 1993 (reprinted); p. 3.

5. Benedetti, Robert P., rev.; "Identification of the Hazards of Materials" in *Fire Protection Handbook,* Seventeenth Edition; National Fire Protection Association; July 1991; pp. 9-144 - 9-146.

6. Plog, Barbara, ed.; "Biological Hazards" in *Fundamentals of Industrial Hygiene,* Fourth Edition; National Safety Council; 1996; pp. 409-410.

7. Plog, Barbara, ed.; "Ionizing Radiation" in *Fundamentals of Industrial Hygiene*, Fourth Edition; National Safety Council; 1996; pp. 255-257.

8. Plog, Barbara, ed.; pp. 258-261.

9. *Working Safely with Chemicals;* Business & Legal Reports, Inc.; Publication, #200-045; Rev. February 1993.

10. Kenworthy, William E. with Mark H. Snow and Fred H. Daly; "Employee Training" in *Transportation of Hazardous Materials; A Compliance and Practice Guide for Safe Transportation of Hazardous Materials,* Second Edition; Government Institutes, Inc.; 1992; p. 72.

11. *Working Safely with Chemicals;* Publication, #200-045.

12. Lindgren, Gary F.; "Container Handling and Storage" in *Managing Industrial Hazardous Waste*; Lewis Publishers, Inc.; 1989; p. 284.

13. Lindgren, Gary F.; p. 284.

14. Phifer, Russell W. and William R. McTigue Jr.; "On-Site Storage and Handling" in *Handbook of Hazardous Waste Management for Small Quantity Generators;* Lewis Publishers, Inc.; 1989; p. 77.

15. Phifer, Russell W. and William R. McTigue Jr.; p. 78.

16. Laing, Patricia M., ed.; "Manual Handling and Material Storage" in *Accident Prevention Manual for Business & Industry, Engineering & Technology,* 10th Edition; National Safety Council; 1992; p.

230.

17. Nwaelele, O. Dan, Network Engineering Services, Inc.; "Hazardous Waste Issues" in *Health and Safety Risk Management, Guide for Designing an Effective Program*, Part III; Government Institutes, Inc.; 1994; pp. 10-11.

18. *Code of Federal Regulations*, Title 29, Part 1910, Sections 1910.1200(f) and 1910.1201(a)-(b); Rev. July 1, 1996.

19. Phifer, Russell W. and William R. McTigue Jr.; p. 79.

20. Phifer, Russell W. and William R. McTigue Jr.; p. 79.

21. Phifer, Russell W. and William R. McTigue Jr.; p. 79.

22. Lindgren, Gary F.; p. 284.

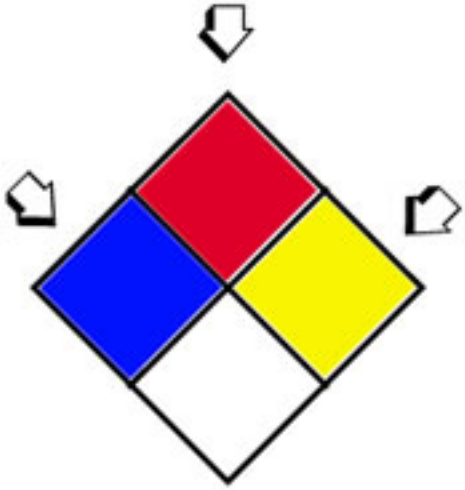
23. Lindgren, Gary F.; p. 284.

24. *Hazardous Waste Regulations for Small Quantity Generators, A Handbook for Small Business;* Texas Natural Resource Conservation Commission; Publication, RG-5; Rev. September 1993 (and currently under revision); pp. 15-17.

Identification of Health Hazard Color Code: BLUE		Identification of Flammability Color Code: RED		Identification of Reactivity Color Code: YELLOW	
Type of Possible Injury		Susceptibility of Materials to Burning		Susceptibility to Release of Energy	
Signal		Signal		Signal	
4	Materials that on very short exposure could cause death or major residual injury.	4	Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature, or that are readily dispersed in air and that will burn readily.	4	Materials that in themselves are readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures.

3	Materials that on short exposures could cause serious temporary or residual injury.	3	Liquids and solids that can be ignited under almost all ambient temperature conditions.	3	Materials that in themselves are capable of detonation or explosive decomposition or reaction but require a strong initiating source or which must be heated under confinement before initiation or which react explosively with water.
2	Materials that on intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.	2	Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.	2	Materials that readily undergo violent chemical change at elevated temperatures and pressures or which react violently with water or which may form explosive mixtures with water.
1	Materials that on exposure would cause irritation but only minor residual injury.	1	Materials that must be preheated before ignition can occur.	1	Materials that in themselves are normally stable, but which can become unstable at elevated temperatures and pressures.
0	Materials that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible material.	0	Materials that will not burn.	0	Materials that in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.

QUICK REFERENCE TO NFPA 704 IDENTIFICATION SYSTEM



FIRE HAZARDS
(This square is color-coded red.)

4	Extremely flammable
3	Ignites at normal temperature
2	Ignites when moderately heated
1	Must be preheated to burn
0	Will not burn

HEALTH HAZARDS
(This square is color-coded blue.)

4	Too dangerous to enter -- vapor or liquid
3	Extremely dangerous -- use full protective clothing
2	Hazardous -- use breathing apparatus
1	Slightly hazardous
0	Like ordinary material

REACTIVITY (STABILITY) HAZARDS
(This square is color-coded yellow.)

4	May detonate -- evacuate area if materials are exposed to fire
3	Strong shock or heat may detonate -- use monitors
2	Violent chemical change possible -- use hose from distance
1	Unstable if heated -- use normal precaution
0	Normally stable

SPECIAL HAZARDS
(This square is color-coded white.)

OXY	Oxidizer
ACID	Acid
ALK	Alkali
COR	Corrosive
W	Use NO WATER

Source: Benedetti, Robert P., rev.; "Identification of the Hazards of Materials" in Fire Protection Handbook, Seventeenth Edition; National Fire Protection Association; July 1991; pp. 9-144 - 9-145.

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Section One - Property Conservation Program
Chapter 4
Property Loss Reporting

Revised: November 2004

Volume II:

Government Code, §403.271(b) gives the Office of the State Comptroller (comptroller) for the State of Texas the authority to administer the property accounting system.[1] The comptroller issues rules and regulations (34 TAC §5.200) concerning the SPA system.[2] The comptroller also publishes the State Property Accounting Process User's Guide which is designed to familiarize agencies with requirements and outline reporting responsibilities. In addition, this guide contains specific procedures and user information, such as computer screens and field instructions and forms.[3] Together, the comptroller's rules and guide prescribe records, reports, and forms necessary to accomplish the statutory objectives of the property accounting system. The comptroller maintains centralized records of state personal property in the fixed asset component of the uniform statewide accounting system. The State Auditor's Office (state auditor) provides technical assistance, advice, and approval for specific situations.

All real property owned by the state must be accounted for by the state agency that possesses the property, under §31.153, Natural Resources Code. The Asset Management Division of the General Land Office (GLO) reviews and keeps inventory records of all property owned by the state. These inventory records are kept in the state real property inventory (SRPI). The inventory records are compiled from information submitted to the division under §31.153 and §31.155 of the Natural Resources Code. The SRPI captures information for real property assets, the name of the state agency holding title, property acquisition price and date, legal description for the land, facility descriptions, and current and projected uses of the property. [4]

Loss or damage to these types of properties will be discussed herein. Personal property will be covered first; real property covered last.

Lost, Destroyed, or Damaged Property

Government Code, V.T.C.A., §403.275 holds the agency head, property manager, or agency employee entrusted in writing as pecuniarily liable for agency property that disappears because of theft or other cause if the loss is due to the failure of such person(s) to exercise reasonable care for the safekeeping of the property. It further states that agency property damaged or destroyed as a result of an intentional wrongful act or a negligent act of any state official or employee will result in that person being

monetarily liable.[5] Further, §403.276 establishes a procedure for reporting to the Comptroller's Office and the attorney general any state property lost, destroyed, or damaged through the negligence or fault of any state official or employee. In addition, if the property is thought to be stolen, the agency head or property manager must report it to the appropriate law enforcement agency. Following the report, the attorney general must make an investigation. If the investigation discloses that the loss, destruction, or damage was sustained through the fault of a state official or employee, the attorney general shall make a written demand upon the state official or employee for reimbursement of the loss. If the attorney general's demand is refused or disregarded, legal action may be taken as considered necessary by the attorney general.[6]

Transfer of Personal Property

Section 403.278 of the Government Code makes provisions for the transfer of state property, with the exception of real property, between agencies under the following broad guidelines. The transfer may involve monetary compensation and should be immediately reported by both agencies to the comptroller. When monetary compensation is involved, the recipient of the property should issue a voucher to the agency disposing of the property so the comptroller may issue an interagency transaction voucher (ITV) for reimbursement. The comptroller will adjust the property inventory of both agencies as appropriate.[7]

Surplus and Salvage Property

Chapter 2175, Government Code gives the Building and Procurement Commission (TBPC) the authority to establish and maintain policies and procedures for the transfer, sale, or disposal of surplus and salvage personal property no longer needed by state agencies.

Section 2175.001 of the Government Code contains the following property definitions:

- "Personal property" includes: personal property lawfully confiscated and subject to disposal by a state agency and personal property affixed to real property, if its removal and disposition is for a lawful purpose under this or another law.
- "Salvage property" means personal property that through use, time, or accident is so damaged, used, or consumed that it has no value for the purpose for which it was originally intended.
- "Surplus property" means any personal property that exceeds a state agency's needs and is not required for the agency's foreseeable needs. The term includes used or new property that retains some usefulness for the purpose for which it was intended or for another purpose.

All state agencies that determine they have surplus or salvage property shall inform TBPC and the Comptroller of the kind, number, location, condition, original cost or value, and date of acquisition of the property.

Surplus property must be made available to eligible entities before it can be made available to the public. When a state agency reports to TBPC that it has surplus or salvage equipment or material, TBPC informs other state agencies, political subdivisions, and assistance organizations, of the comptroller's website listing surplus property. Not later than the second day after the comptroller receives notice from a state agency of the surplus property, they will post on their website of the existence, kind, number, location, and condition of the equipment or material. During the 10 business days after the date the property is posted on the comptroller's website, a state agency, political subdivision, or assistance organization may coordinate directly with the reporting state agency for a transfer of the property at a price established by the reporting agency.

If a transfer is made to a state agency, the participating agencies shall report the transaction to the Office of the State Comptroller. The Comptroller debits and credits the proper appropriations and adjusts the state property accounting records.*8* No later than the second day after the comptroller receives notice of the transaction, the property is removed from their website list of surplus property.8

Refer to the Comptroller's Process User's Guide for further information relating to surplus and salvage property and exemptions applicable to certain state agencies.*9*

Reporting Deletions to the Accounting System

To delete missing or stolen property, state agencies must use the policies and procedures prescribed by the Comptroller. The comptroller and state auditor authorize deletions of missing, obsolete, or no longer serviceable property. A state agency must notify the State Auditor's Office regarding stolen property by processing the online deletion request prescribed by the comptroller. The deletion process serves as a request for approval to delete property. Agencies must notify the TBPC prior to deleting surplus property, unless the agency qualifies as exempt. For complete information regarding the notification and deletion procedures for missing, stolen, and surplus/salvage property, refer to the Comptroller's Process User's Guide.*10*

Report of Loss or Damage to Real Property

The General Land Office's (GLO) State Real Property Inventory online reporting system is used to report demolished or partially damaged buildings to the GLO. Refer to the *State Real Property Inventory Application Hanbook* by GLO for further details, or contact the State Property Inventory Manager for specific questions regarding SRPI entries.

Checklist for Essential Program Elements

1. Are employees held accountable for lost, damaged, and stolen property in accordance with V.T.C.A., Government Code, §403.275? Yes No
2. Are lost, destroyed, damaged property reported yearly to the to the Comptroller and Office of the Attorney General; and if believed to be stolen, also reported to appropriate law enforcement agency in accordance with Government Code, §403.276? Yes No

Additional Resources for Texas State Agencies
Publications

Government Code, Chapter 403 - Comptroller of Public Accounts, Subchapter L - Property Accounting

Government Code, Title 10, Subtitle D - State Purchasing and General Services, Chapter 2175 - Surplus and Salvage Property

Natural Resources Code, Chapter 31 - General Land Office, Subchapter E - Real Property Accounting and Management

Texas Administrative Code, Title 34, - Public Finance, Part 1 - Comptroller of Public Accounts, Chapter 5 - Funds Management (Fiscal Affairs), Subchapter O - Uniform Statewide Accounting System, Section 5.200 (State Property Accounting System)

State Property Accounting Process and Procedures Guide, Publication, #96-416 (June 2004)
and
State Property Accounting User's Manual, Publication, #96-418 (February 1997)
Office of the State Comptroller
Fiscal Management Documentation
111 East 17th Street
Austin, TX 78774-0001
(512) 475-0549
FAX: (512) 475-0378

State Real Property Inventory Application Handbook (December 2003)
General Land Office
Asset Management Division
1700 North Congress Avenue
Austin, TX 78701-1436
(512) 463-5250475-1427, or
State Property Inventory Manager,
(512) 463-5250

Endnotes

1. Government Code, Chapter 403, Subchapter L, Section 403.271 (Vernon Pamphlet 1998). *(Return to text)*

2. Texas Administrative Code, Title 34, Section 5.200. (Return to text)

3. State Property Accounting Process User's Guide, Comptroller of Public Accounts, Fiscal Management Documentation; Publication, #96-418; June 2004; Introduction. (Return to text)

*4.*Natural Resources Code, Subchapter E, Sections 31.153-31.155 (Vernon 1998); *State Real Property Inventory Application Handbook*, General Land Office, Asset Management Division, December 2003, Page 1.(Return to text)

5. Government Code, §403.275 (Vernon 1998); *State Property Accounting Process User's Guide*, Chapter 2.(Return to text)

6. Government Code, §403.276 (Vernon 1998); *State Property Accounting Process User's Guide*, Chapter 2.(Return to text)

7. Government Code §403.278 (Vernon 1998); *State Property Accounting Process User's Guide*, Chapter 2.(Return to text)

8. Government Code, Title 10, Subtitle D - State Purchasing and General Services, Chapter 2175 - Surplus and Salvage Property, Sections 2175.001 and 2175.121-2175.126 (Vernon Pamphlet 1998). (Return to text)

9. Government Code, §§2175.301-2175.303 (Vernon Pamphlet 1998); *State Property Accounting Process User's Guide*, Chapters 2, 3, 4, 5, 6, 8.(Return to text)

10. Government Code, §§403.273 and 403.276 (Vernon 1998); *State Property Accounting Process User's*, Chapters 2 and 6.(Return to text)

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Section Two - Fleet Safety Program
Chapter 1
Overview of Fleet Safety

Revised: December 2004

Volume II:

Introduction

The ultimate goal of the fleet safety section of *Risk Management for Texas State Agencies* is to promote safe vehicle operation by presenting a guide that will allow each agency maximum flexibility in planning their individual fleet programs. The scope of this section is limited to fleet safety. For discussions concerning employee safety and loss control, refer to Volume III, Section Two.

Definition of Fleet Safety

For purposes of this chapter, a fleet of vehicles may be defined as one or more vehicles owned or leased by a state agency. A fleet of vehicles may include airplanes, automobiles, trucks, truck tractors, power boats and other water going vessels, loaders, forklifts, motorcycles, snow mobiles and other "off road" vehicles. Fleet safety encompasses all activities that are necessary to plan, organize, staff, develop, implement, control and monitor a program to prevent or reduce accidents, claims and damages that arise from fleet operations. The fleet safety program includes all functions that involve the fleet to systematically prevent, reduce and control accidents.(1)

Importance of Fleet Safety

Fleet safety directly affects the productivity and fiscal well-being of all state agencies that operate a fleet of vehicles. Every time a fleet vehicle is operated, it runs the risk of becoming involved in an accident. Once the vehicle is involved in an accident the state agency may become liable for the direct costs of property damage, bodily injury, workers' compensation and other legal claims. The state agency will also bear the indirect costs of lost productivity from services not rendered, reassignment of employees and preparation of reports. Therefore, it is imperative that safe vehicle operation be recognized as a necessary skill that must be practiced and reinforced by every vehicle operator.(2) It is equally important that appropriate fleet vehicle maintenance and safe operating procedures be developed and implemented by state agencies in order to accomplish the goals of the fleet safety program.

Elements of a Fleet Safety Program

This section of *Risk Management for Texas State Agencies* provides some basic guidelines for fleet safety risk exposure identification, loss prevention and control, loss reporting, and program appraisal. The program fundamentals include the following:(1)

- exposure identification;
- fleet safety organization;
- fleet safety policy;
- program supervision;
- employment selection;
- fleet safety training;
- awards and recognition;
- vehicle operation and maintenance;
- driver record review; and,
- accident and loss reporting.

References

1. *Motor Fleet Safety Manual*, 4th Edition; National Safety Council; Chicago, IL; 1996.
2. *Public Employee Safety & Health Management;* National Safety Council; Chicago; 1990; p 255.

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Section Two - Fleet Safety Program
Chapter 2
Identification of Fleet Exposures

Revised: December 2004

Volume II:

Introduction

Operation of a fleet vehicle exposes the driver, passengers, and/or others to a diversity of risks. These risks may result in injury to employees and members of the general public, lost time from work, decreased productivity, and monetary loss in terms of workers' compensation and/or other claims and damages. In order to prevent and control accidents and losses, an agency must first identify what risks exist. Once the risks have been identified, the agency may develop a program to manage and control losses from fleet exposures.

Methods of Identifying Fleet Exposures

Perhaps the most useful methods of identifying fleet exposures are the use of checklists, making personal on-site safety inspections, and use of accident and loss report documents and statistics. Checklists have the advantage of being specifically tailored to meet the needs of fleet safety maintenance and operational facilities. Checklists can provide a variety of uses in the fleet exposure identification process. For example, checklists can be developed for use by fleet maintenance personnel to provide controls over routine maintenance of fleet vehicles. Operators of fleet vehicles can be provided with a checklist of items that should be reviewed before beginning operation of the vehicle. Also, when an accident or loss occurs that involves a fleet vehicle, a checklist can serve as an accident investigation tool. Checklists should, however, be reviewed and updated on a regular basis to reflect conditions that currently exist. Events may bring attention to conditions were not considered previously or eliminate an item from the checklist that no longer exists.

Personal safety inspections are very effective in identifying exposures. In some cases, exposures and hazards may not be identified unless a physical inspection is conducted.(1) Every fleet maintenance and operations building and facility should receive routine, frequent inspections.(2) The inspection should concentrate on the quality of housekeeping and maintenance efforts. However, fire protection, personal protective equipment, emergency response procedures, and other items as appropriate should also be included in the inspection.

The third principal method of identifying fleet exposures is to utilize claims data and statistics. A data

base of claims loss experience developed over a period of several years can be a valuable tool to identify loss exposures and to identify trends.

References

1. Crawford, Jay; "How to Conduct an Inspection"; *Public Sector Risk Management*; Public Risk Management Association; Arlington, VA; 1990.

2. *Motor Fleet Safety Manual*, 4th Edition; National Safety Council; Chicago, IL; 1996.

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Section Two - Fleet Safety Program
Chapter 3
Fleet Loss Control Measures

Revised: December 2004

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Introduction

"Accidents can be prevented".(1) This message has been preached for many years by such organizations as the National Safety Council. The statement is true for any specific event that results in an accident if one or more of the situational, environmental, or human factors that contribute to the accident could be changed, altered or removed. Therefore the prime directive of a typical safety program is to prevent all accidents.

Unfortunately another statement also is true: "Accidents do happen." In spite of the best laid plans of safety professionals in the pursuit of the idealistic goal of preventing all accidents, accidents can and oftentimes do occur. Accordingly, the discipline of loss control recognizes that not all accidents will be prevented. A loss control program certainly promotes prevention of accidents, but effective loss control plans also anticipates the eventuality of an accident and formulates plans to reduce and control its' adverse impact upon people and resources within and beyond the organization.

This chapter discusses some of the loss control measures that state agencies who operate vehicle fleets may utilize to prevent accidents, and control the effects of the accident when it occurs.

Fleet Safety Policy

A concise, well-written fleet safety policy statement is one of the cornerstones of a fleet safety program. A policy statement, issued and fully supported by top management, sets the tone for developing a corporate safety culture. The exact format and length of the policy statement is unimportant. What is important is that all employees know and understand managerial expectations regarding fleet operations - employees must perform their jobs safely. This does not mean that unreasonable, unrealistic or unachievable safety expectations are created, but rather that employees are expected to take all reasonable and necessary precautions to avoid having an accident.

Employee Roles in a Fleet Safety Program

Directors and Agency Managers

The agency's executive officer directs fleet safety efforts by appointing a knowledgeable fleet safety officer, setting safety priorities and goals, providing appropriate resources, and management support. Agency managers should follow the director's lead by giving priority support for fleet safety efforts.

Managers should emphasize to employees who drive agency vehicles that agency policies and procedures concerning vehicle safety should be religiously followed. Appropriate disciplinary procedures should be developed and used if policies and procedures are not followed. Use of disciplinary procedures must be done in a consistent manner to be effective. This is very important.

Fleet Manager

The agency fleet manager directs the operations and maintenance efforts of agency fleet vehicles. The fleet manager plays a key role in fleet safety efforts by setting schedules and priorities for maintenance of agency vehicles and developing guidelines for operations of the vehicles. The fleet manager should incorporate appropriate safety procedures into all operating procedures of agency vehicles.

Fleet Safety Officer

The fleet safety officer must be a safety professional and should be given appropriate authority to carry out the duties of the position. The fleet safety officer should investigate and analyze all vehicle accidents. The fleet safety officer will work with the fleet manager and other agency managers to develop appropriate programs to create and maintain fleet safety awareness and accident prevention.

Supervisors

Supervisors who direct the activities of employees who operate agency vehicles should require their employees to be fully qualified. This includes requiring employees to possess a valid license for the type of vehicle to be driven. They must possess the appropriate personal vehicle insurance. And they must have and maintain a safe driving record based on standards that are acceptable to the agency.

Employees Who Drive Agency Vehicles

The ultimate success of a fleet safety program depends directly on those employees who drive agency vehicles. Employees must be adequately trained in proper safety procedures and should be given management direction and support to drive safely. Given proper training, direction and support, most employees will prove to be responsible drivers. Employees must possess a valid license for the type of vehicle to be driven, they must possess the appropriate personal vehicle insurance and they must maintain a safe driving record according to agency standards.

Fleet Safety Training Program

Motor vehicle accidents are a leading cause of occupational injuries and death.(1) This problem makes fleet safety training imperative. The fleet safety training program should include basic training in vehicle operation, refresher instruction at regular intervals, and remedial training for employees involved in an accident. Fleet safety training programs can be developed in-house or commercially developed programs

can be purchased.(2) Training topics should include, but not be limited to, the following:

- wearing seat belts;
- effects of driving while under the influence of drugs or alcohol;
- hazardous conditions;
- high risk driving periods; what to do following an accident; and,
- vehicle maintenance.

Operators of heavy duty trucks and truck tractors with trailers may require additional behind-the-wheel training. Such training should simulate actual road and working conditions. Refresher training should be repeated at regular intervals.

Specialized Training Courses

Specialized training courses relative to fleet safety have been commercially developed and are available for purchase. For example, The National Safety Council (NSC) has developed several specialized driver training courses.(2) The "Defensive Driving Course" is designed to instruct and motivate motor vehicle drivers to control and avoid accident producing situations. This course develops the qualities of knowledge, foresight and skills.

NSC's "DDC-Attitudinal Dynamics of Driving" course is designed for the operator with multiple tickets or traffic accidents. The course applies the principles of Reality Therapy to the problem driver's driving behavior. NSC's "Commercial Drivers License Skills Training Programs" are aimed at preparing commercial drivers for CDL testing. Instructor development courses can also be taken to become an instructor in the National Safety Council's driving courses.(2)

Commercial Drivers License

In 1986, Congress enacted the Commercial Motor Vehicle Safety Act of 1986, Title XII of Public Law 99-570.(6) The act requires all states to implement a commercial drivers license testing program. Every state has passed legislation providing for implementation of a commercial drivers license program.(4) The Texas Commercial Driver's License Act, V.T.C.S., Article 6687b, §(2) has been enacted and became effective April 1, 1990. By April 1, 1992, every driver of a commercial vehicle must carry a commercial drivers license (CDL). Since September 1990, the Texas Department of Public Safety has been testing drivers under the new program.

A driver must have a CDL to operate any of the commercial motor vehicles listed below:

- a single vehicle with a gross vehicle weight rating (GVWR) of more than 26,000 pounds;
- a trailer with a GVWR of more than 10,000 pounds if the gross combination weight rating is more than 26,000 pounds;
- a vehicle designed to transport more than 15 persons (including the driver); or,
- any size vehicle which requires hazardous materials placards.(3)

Refer to the *Texas Commercial Motor Vehicle Driver's Handbook* for additional information on CDL requirements.(3)

Safe Driver Recognition Program

A fleet safety program should motivate driving employees to maintain and/or improve safe driving records. Such programs can increase awareness of vehicle safety, reduce preventable fleet accidents and reduce costs. An effective safe driver recognition program should "pay for itself" in reduced accident claims and lost production. The program should be developed at the grassroots level, using employee and supervisor suggestions and recommendations. Successful programs have been built on recognition for "zero-accidents."

Preventive Maintenance Program

Article 601b, §14.01, Vernon's Texas Civil Statutes (V.T.C.S.), makes provision for the Texas building and Procurement Commission (TBPC) to administer a program to provide fleet maintenance services for all state-owned vehicles.(7,8) Presently, however, the maintenance service is only available in Travis County. The service includes but is not limited to the following:

- state-approved vehicle safety inspections;
- bulk fuel system credit card purchases;
- lubrication services;
- preventative maintenance services; and,
- contract maintenance service for extensive mechanical work.

Other information concerning the preventive maintenance program is provided in the TBPC's "Statewide Vehicle Fleet Management Rules," §125.41 through §125.53. Additional help is available by writing the office of Vehicle Fleet Management Section (OVFM), P.O. Box 13047, Austin, Texas 78711 or going online to: http://www.tbpc.state.tx.us/fleet/ContactInformation.html.

Pre-trip Inspection Procedures

Procedures should be developed for conducting vehicle inspections by drivers of vehicles prior to driving. The driver should inspect the vehicle for conditions that could cause hazardous driving. The inspection should include the exterior, interior and mechanical systems. Pre-trip inspection forms help the driver to consistently check all important vehicle systems. The Texas Department of Public Safety provides some criteria for basic safety inspections on a variety of vehicles. The criteria can be utilized to help build an agency's own Vehicle Inspection Checklist. The DPS criteria can be found at: http://www.txdps.state.tx.us/vi/inspection/sta_loc_emis.asp

Vehicle Safety Equipment

Vehicle safety equipment that has been installed by the manufacturer will vary depending on the type of vehicle and the year of manufacture. Such safety equipment should be maintained in an operable condition. Such equipment may include but is not limited to the following:

- seat belts;
- air bags;
- quality tires;
- antilock brakes;
- left and right sideview mirrors;
- reflective or light colored paint (for night visibility); and,
- slip resistant steps and rails (for trucks, tractors, vans and buses).6

Moving Violation Records

Procedures should be developed by agency management to routinely check the moving violation records (MVR's) of agency drivers. A MVR check should be conducted on agency drivers at the time of employment and on a regular basis thereafter. This is commonly done on an annual basis however, if an employee is found to have a problematic driving record but the agency feels they need to keep this person on their approved driver list, then more frequent MVR checks are recommended. For both safety and liability reasons no unsafe driver should allowed to operate agency vehicles. In addition, employees who operate agency vehicles must be required to inform the agency if/when their state issued drivers license is revoked or suspended. A "good driving record" should be a job requirement of agency drivers, and must be included in both the position description and job posting announcement. An applicant for a driving position will be notified that the applicant's MVR will be checked. Questions concerning an applicant's MVR should be asked during an interview only if the driving record is pertinent to the job duties to be performed.

Requests for MVR checks may be made to the Texas Department of Public Safety using Driver Records form D.R.-1 (Rev 9/01). Level #2 Checks are done a cost of $6.00. Information provided may include the applicant's or employee's date of birth, license status and a list of all accidents and violations within the past three-year period (option number two on the D.R.-1). Driver record request guidelines, a printable copy of the D.R.-1 Form and additional information can be found online at: http://www.txdps.state.tx.us/administration/driver_licensing_control/faq/answers_dr_ac.htm

For further information contact:

Texas Department of Public Safety
Attn: Driver Records Bureau
P.O. Box 149246
Austin, Texas 78717-9246
Fax: (512) 424-7285

MVR checks may be extended to verify that the type and class of license is adequate for the type of vehicle required for a particular job description.

Care should be exercised to maintain and control MVR's. These records should be provided to agency managers or supervisors on a need-to-know basis only, unless requested (and found subject to disclosure) under the Open Records Act. The agency should develop a standard which would be the basis for comparison of MVR's prior to receipt of MVR's.

Operations of Fleet Vehicles

All agency vehicle operators should be expected to obey all federal, state and local laws and ordinances, including speed limit laws. Speed limits during operations should be adjusted to account for adverse weather, road conditions, heavy traffic periods, and low visibility.(5) Each agency should develop a comprehensive set of safe operating procedures for all agency drivers who operate state owned vehicles and/or are required to drive in the course and scope of agency business.

Transporting Non-Agency Personnel

Occasions arise which require state agency vehicles to transport non-agency personnel. The agency should keep in mind that volunteer workers and private citizens may bring suit against the agency and state if personal property damage, personal injury or death occurs. Such suits may be brought against the state under the conditions set forth in the Texas Tort Claims Act, §101.021. State agencies therefore should establish appropriate procedures concerning transportation of non-agency personnel in agency-owned vehicles.

REFERENCES

1. *Motor Fleet Safety Manual*; 4th Edition; National Safety Council; Chicago, IL; 1996.

2. *General Materials Catalog;* National Safety Council; Chicago, IL.

3. "CDL: The Test Question"; *Safety and Health Magazine;* National Safety Council; Chicago, IL; January 1991; p 49.

4. *Texas Commercial Motor Vehicle Drivers Handbook;* Texas Department of Public Safety; Austin, TX; p 1-1.

5. *Public Employee Safety and Health Management;* National Safety Council; Chicago, IL; 1990; pp262-265.

7. *Texas Driver's Handbook,* Texas Department of Public Safety, Inspection and Planning Division; Austin, TX; pp 5, 13-14, 60.

6. The Commercial Motor Vehicle Safety Act of 1986, http://www.access.gpo.gov/uscode/title49/subtitlevi_partb_chapter311_.html .

7. Texas Building and Procurement Commission Office of Fleet Management, http://www.tbpc.state.tx.us/fleet/index.html.

8. Texas Building and Procurement Commission State Vehicle Fleet Management Plan, http://www.tbpc.state.tx.us/fleet/finalfmp102500.html.

Appendix A

LIDR-1 (Rev. 1/90)

REQUEST FOR INFORMATION FROM TEXAS DRIVER LICENSE RECORDS
(Mail To: LIDR, Texas Department of Public Safety, Box 15999, Austin, Texas 78761-5999)
MAKE CHECK PAYABLE TO: TEXAS DEPARTMENT OF PUBLIC SAFETY
TO BE COMPLETED BY PERSON REQUESTING INFORMATION

CHECK TYPE SERVICE DESIRED:

☐ 1.	Date of birth-License status-Latest address.	Fee $2.00
☐ 2.	Date of birth-License status-List of accidents and violations in record within immediate past 3 year period	Fee $3.00
☐ 2A.	Same as #2 (above)-Certified. **THIS RECORD NOT ACCEPTABLE FOR DDC COURSE.**	Fee $5.00
☐ 3.	Date of birth-License status-List of all accidents and violations in record. **THIS RECORD FURNISHED TO LICENSEE ONLY.**	Fee $3.50
☐ 3A.	Same as #3 (above)-Certified. **THIS RECORD FURNISHED TO LICENSEE ONLY. ACCEPTABLE FOR DDC COURSE.**	Fee $5.00

INFORMATION REQUESTED ON:

TEXAS DRIVER LICENSE NO.	SOCIAL SECURITY NO.	DATE OF BIRTH Month Day Year

LAST NAME	FIRST	MIDDLE/MAIDEN

MAIL DRIVER RECORD TO:

MAILING ADDRESS STREET/BOX NUMBER

CITY	STATE	ZIP CODE

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Section Two - Fleet Safety Program
Chapter 4
Reporting Fleet Losses

Revised: December 2004

Volume II:

Introduction

A vehicle accident involving a state agency vehicle can result in property losses, liability losses, workers' compensation losses, and the direct loss of productivity and efficiency. Because the loss potential is high and the accident circumstances so varied, it is important for state agencies that operate fleet vehicles to establish procedures for reporting vehicle accidents and losses, and for conducting accident investigations. This chapter provides guidelines and suggestions that may assist state agencies in establishing such procedures.

Accident Reporting Packet

Each fleet vehicle should contain an accident reporting packet. The envelope or first page of the packet should contain a quick check list of step-by-step instructions regarding what the vehicle operator should do in the event of an accident. The accident reporting packet may include the following:

- accident Report Form required by the agency;
- name and telephone number of the agency fleet manager, fleet safety officer or other persons directly responsible for initiating fleet accident investigations;
- instructions concerning legal responsibilities of agency drivers;
- writing pens or pencils; and,
- Texas Department of Public Safety (DPS) Driver's Confidential Accident Report Form (ST-2). Copies of this form can be obtained at the Texas Department of Public Safety website: http://www.txdps.state.tx.us/ftp/forms/st-2.pdf.

Accident report packets that are carried in agency vehicles should be examined by the fleet safety officer at least quarterly and upon return of a vehicle that has been involved in an accident. Any missing forms or writing materials should be replaced. An example of an accident reporting packet is described in the National Safety Council's *Accident Prevention Manual Business and Industry - Administrstion & Programs Industrial Operations.(1)*

Loss Control of a Fleet Accident

Loss control measures that reduce or limit the agency's losses actually begin before an accident occurs. The fleet safety officer should develop specific procedures that agency drivers are expected to follow in the event a vehicle accident occurs. These procedures should include guidelines regarding appropriate oral and written statements that can be made to law enforcement officers and to other persons involved in the accident. All state agency drivers should receive training on an annual basis regarding these procedures. The key to successful loss control measures rests with the driver at the scene of the accident. Statements that are made verbally or in writing can have a direct bearing upon the liability incurred by the state and/or the ultimate amount of money paid by the state in claims and damages.

Investigations of Fleet Vehicle Accidents

Circumstances may require that the state agency driver perform the agency's initial investigation of the accident. Appropriate accident report forms provided in the accident reporting packet carried in each agency vehicle should serve this purpose.

However, more effective accident investigations can be provided by a professional accident investigator who is specifically trained to conduct such investigations. If a state agency assigns personnel to conduct vehicle accident investigations, such personnel should be thoroughly and professionally trained. A trained accident investigator can accurately and systematically examine and document vehicle accidents in a manner that will limit the agency's liability exposure.

An accident investigation should provide objective documentation and/or evidence concerning the conditions and events that existed prior to, during and after the accident. Only the facts as they occurred should be recorded and reported. Subjective comments and statements should never enter into an investigation.

If the agency driver is injured and transported to emergency medical facilities and the agency's accident investigator cannot be present at the accident scene, the agency investigator should contact the investigating police officer and obtain relevant accident information. The agency representative may obtain a copy of the officer's report by completing and submitting a "Request For Copy Of " Peace Officer's Accident Report" (ST-913) that is available at the Texas Department of Public Safety website:, Statistical Services Section at the address previously noted on page one of this chapter, http://www.txdps.state.tx.us/ftp/forms/st-91.pdf.

Accident investigation information should be compiled and maintained by the fleet safety officer. This information should be analyzed to determine frequency and severity of various types of accidents and other statistical information that may be beneficial to agency management to monitor and control the fleet operations, maintenance and safety programs.

Driver Procedures Following a Fleet Accident

The agency fleet safety officer should develop a comprehensive set of procedures that agency drivers

should be expected to follow in the event of a vehicle accident. These procedures may include but should not necessarily be limited to the following suggested guidelines:

- *Stop* the vehicle immediately. Avoid obstructing the normal flow of traffic if possible. Place appropriate warning flags, reflective triangles, flares or other such devices, if available, to prevent additional accidents or damage.

- *Aid* any injured person(s) and request medical assistance from police officers, firemen, or emergency medical services technicians. The driver of any vehicle involved in an accident resulting in injury or death is required by law to render reasonable assistance to an injured person. Such assistance includes carrying or making arrangements for carrying the injured person to a physician, surgeon, or hospital if it is apparent that medical or surgical treatment is necessary, or if the injured person requests such transportation.

- *Report* the accident by telephoning law enforcement authorities having appropriate jurisdiction. Within an incorporated city, the city police department would be the appropriate authority to call. Outside the city limits, the county sheriff's department should be called. The Texas Department of Public Safety should be called if the accident occurs on a state, federal or interstate highway or in a rural area where DPS troopers are accessible. If the accident occurs in Austin in a state controlled parking garage or lot, the Capitol Security Police should be notified at (512) 463-3333. If the accident occurs in San Antonio in the Sutton Building parking lot (321 Center Street), the Capitol Security Police should also be notified at (512) 222-4669.

- *Report* the accident to the agency's fleet safety officer, fleet manager or accident investigator. The names and numbers of the designated contact persons should be listed in the accident reporting packet.

- *Complete* the accident report form(s) included in the accident report packet. If an accident is not investigated by a law enforcement officer and if the accident results in injury or death to any person including the driver to an apparent extent of at least $500.00, the driver of the vehicle must forward a written report of the accident (DPS form ST-2) to the Texas Department of Public Safety within ten (10) days after the accident.

- *Fault or liability* should not be stated, admitted or accepted. All liability questions should be directed to the agency's general counsel or the Litigation Division of the Attorney General's Office.

- *State the facts* clearly and objectively to law enforcement officers and agency accident investigators. Subjective, misleading or false statements should not be made.

- *Witness Information* should be obtained from all witnesses of the accident. Witness information should include the names, addresses, telephone numbers and, if applicable, vehicle plate numbers of the witnesses.

Obtain insurance information from the driver of other vehicles involved in the accident. Such insurance information should include:

- name of insured;
- name, address and telephone number of insurance company;
- insurance policy number;
- driver's license number of driver; and,
- vehicle license number.

Reporting Theft or Vandalism of Fleet Vehicles

State agencies should develop appropriate procedures for internal reporting of vehicle theft or vandalism. The agency's property manager, fleet manager and agency risk manager should jointly develop procedures regarding theft or vandalism of fleet vehicles. State Purchasing and General Services Commission's *Personal Property Accounting System Manual of Instruction* should be consulted for appropriate reporting forms and procedures for reporting to TBPC and the State Auditor.(3)

If a fleet vehicle is stolen, the agency should notify the appropriate law enforcement agency having jurisdiction. The law enforcement officer should complete an offense report and provide a copy to the agency. This information can be provided on the Texas Department of Public Safety's supplemental crime reporting form"Stolen Property Report" (form UCR-16CAS-5). A copy of the form UCR-16 can be found at: http://www.txdps.state.tx.us/ftp/forms/ucr-16.pdf. The information included on this report should include but not be limited to the following:

- vehicle make, model and color;
- vehicle registration license plate number;
- vehicle identification number (VIN) located on the left-hand side of the dashboard or on the vehicle registration certificate;
- name of driver, if applicable;
- name of witnesses, if any; and,
- last known location of the vehicle.

Reporting Damaged or Destroyed Vehicles

If an agency vehicle is damaged or destroyed, it must be reported to the Texas Building and Procurement Commission, the State Auditor and/or the Comptroller's Office. If the vehicle is destroyed, it should be deleted from the agency's property inventory. The agency's property manager should be notified and should report the deletion according to procedures contained in TBPC's *Personal Property Accounting System Manual of Instruction.*(2)

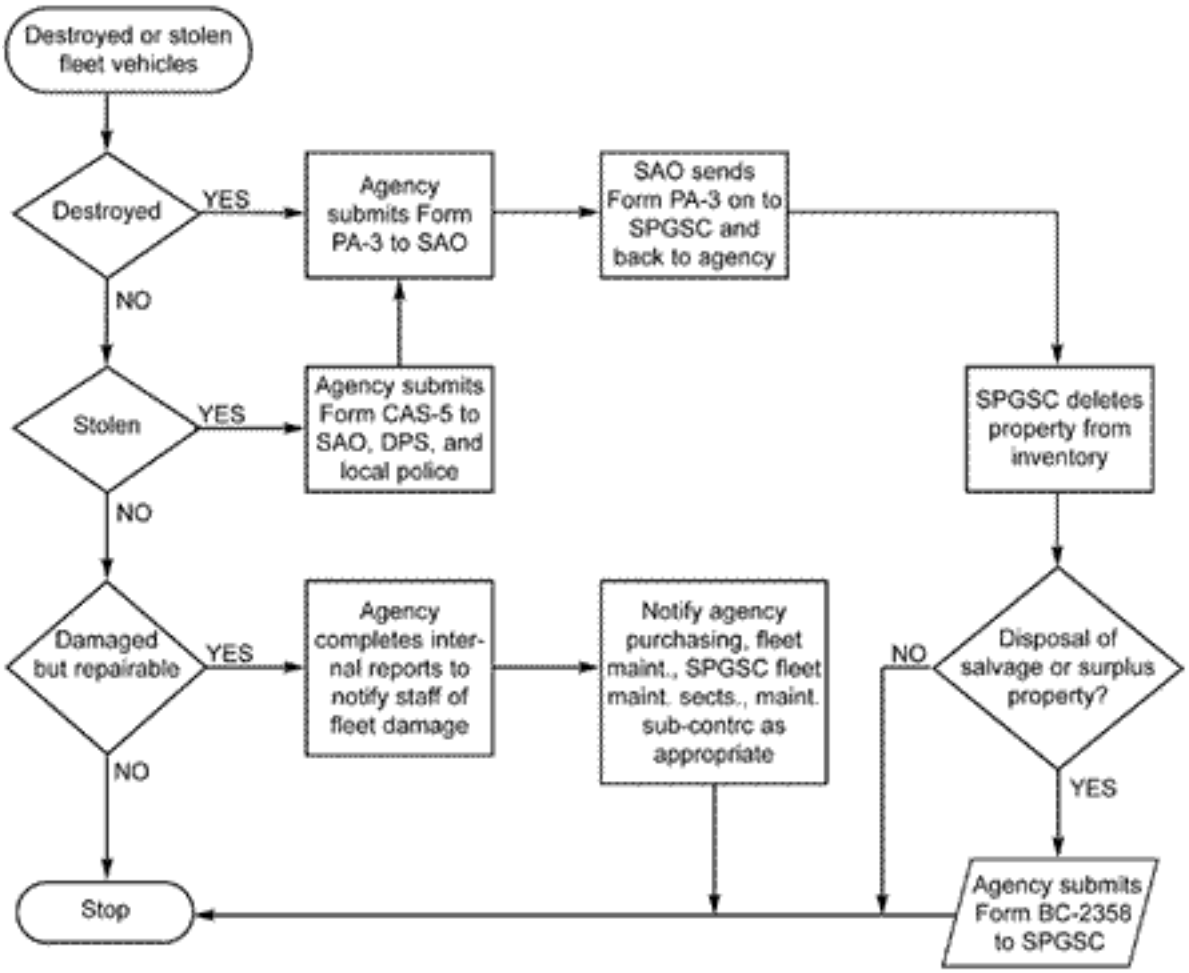
REFERENCES

1. *Accident Prevention Manual for business and Industry - Administration & Programs for Industrial Operations; 12th Edition;* National Safety Council; Chicago, IL.,(also available on CD-Rom).

2. *Public Employee Safety & Health Management;* National Safety Council; Ninth Edition; 1990: pp270-271.

3. *Personal Property Accounting System Manual of Instruction;* Texas Building and Procurement Commission, pp i-32.2, 4.

Interagency Notification of Damaged, Destroyed or Stolen Fleet Vehicles



(Notification should be handled by the agency's property manager or designee. The property manager should also refer to "Personal Property Accounting System Manual of Instruction" issued by State Purchasing and General Services Commission [SPGSC].)

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Section Two - Fleet Safety Program
Chapter 5
Monitoring the Fleet Safety Program

Revised: December 2004

Volume II:

Introduction

A successful fleet safety program is one that is flexible enough to change when conditions warrant that change is necessary. An effective monitoring program provides the basic information that sends the message to management that the program may need to be closely examined for effectiveness.

Record Keeping and Statistical Analysis

The key to monitoring the fleet safety program is an effective, efficient record keeping system. Fleet safety records should be well organized, maintained and kept up-to-date. The most effective way to accomplish this is through computerization. The development and maintenance of a computer data base that contains fleet maintenance and accident records provides the best mechanism for analysis. Statistical analysis can identify trends that may suggest different methods of operations and/or loss control measures. Some examples of statistical data that may prove useful are as follows:

- vehicle accident frequency rates per 1,000,000 miles driven;
- accident frequency rates per hours worked;
- accident frequency rates per driver;
- vehicle accident loss ratio; and,
- direct and indirect costs attributed to vehicle accidents.

REFERENCE

1. *Public Employee Safety & Health Management;* National Safety Council; Chicago, IL; (1990)

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