

APPENDIX G

Materials Storage and Handling Guidelines

1.0 INTRODUCTION

Operations at Austin-Bergstrom International Airport (ABIA) comprise several different industrial activities including aircraft, ground service equipment (GSE), and vehicle maintenance, repairs and fueling, building and facility maintenance, fire fighting, and ground transportation, among others. Each of the ABIA industrial operations can involve periodic or routine handling and storage of chemicals including, but not limited to, used and unused oil, antifreeze, fuels, de-icing fluids, paints, solvents, skydrol, petroleum products, fuel additives, soaps, and cleaners. If managed improperly, these and other chemicals can pose unacceptable risks to the environment or human health. Implementing proper materials storage and handling procedures, therefore, is imperative to ensuring that ABIA operations:

- 1) remain safe for ABIA workers and the general public, and
- 2) are in compliance with applicable local, state, and federal regulations.

As part of ABIA's Storm Water Pollution Prevention Plan (SWP3), each of the industrial activities conducted at ABIA that could cause deleterious impact to storm water have been identified and operational procedures, or Best Management Practices (BMP), have been developed. The BMPs that have been developed focus primarily on outdoor activities, as is appropriate for the protection of storm water. The guidelines presented herein have been developed to supplement the SWP3 BMPs and incorporate practices that are appropriate for both indoor and outdoor material management activities. These guidelines cover:

- Drum and Container Labeling
- Drum and Container Storage
- Secondary Containment
- Material Safety Data Sheets
- Empty Drums and Containers
- Flammable Storage Cabinets
- Emergency Contacts

It is the responsibility of each ABIA tenant and employee to follow these guidelines. The desired result is safe and compliant operations throughout ABIA.

2.0 DRUM AND CONTAINER LABELING

During routine facility operations, chemical-handling activities may include some or all of the following:

- Chemicals are transferred from bulk storage (e.g. tanks) into individual drums or containers.
- Containers with unused portions of chemicals are stored for later use.
- Drums or containers are emptied, cleaned, and reused.
- Off-specification products are stored for later disposal.
- Used chemicals and waste residues are accumulated in containers pending disposal.

These and similar activities create situations whereby the contents of a container can become unknown, or improperly identified. This is particularly true when the activities involve more than one individual. When the content of a container is not known, or is identified improperly, pertinent Occupational Safety and Health Association (OSHA) and environmental regulations are violated and the potential for spills and/or accidents to occur is increased.

To maintain safe and compliant operations, the DOA requires that all ABIA tenants implement proper drum and container labeling procedures. At a minimum:

- Labels must be of an adhesive-type.
- Labels must be of a commercial quality. Writing on duct tape or other tape is not acceptable. (Commercial quality labels are readily available from many local or other suppliers)
- For non-RCRA hazardous waste containers, the label must identify the nature of the container contents at a minimum
- For drums containing RCRA wastes, the label information must meet Environmental Protection Agency (EPA) requirements, including at a minimum:
 - Identify contents and nature of hazard (acid, toxic, flammable, explosive, etc.);
 - Accumulation start date;
 - EPA hazardous waste code classification number; and
 - Generator's EPA identification number.

Drums that are not labeled, or are labeled incorrectly, can represent a serious and costly regulatory violation. Regulatory agencies with relevant jurisdiction, including the Texas Department of Health, Texas Natural Resource Conservation Commission, Environmental Protection Agency, and OSHA, all have the power to levy fines and penalties associated with container labeling non-compliance. Each of these agencies has the authority to conduct facility inspections within their jurisdiction. The DOA will also review drum labeling during facility inspections. In addition to regulatory fines, sampling and testing to identify the unknown contents of containers can be a major additional cost.

3.0 DRUM AND CONTAINER CHEMICAL STORAGE

Drums or chemical containers must be stored in designated areas or indoors where possible. If the material can not be stored indoors, the area must be paved, covered and equipped with secondary containment. Storage of empty containers outdoors is prohibited.

Drum storage indoors shall be in accordance with the Uniform Fire Code requirements. Pallets shall be provided for all indoor storage, but only for unopened drums and containers. Elevation of drums and containers on pallets improves the ability to identify leaks and protects the container exterior from any accumulated liquid. Waste containers stored indoors shall be equipped with secondary containment. Any chemical container that has been opened and no longer has an original seal must be stored using a secondary containment device.

4.0 SECONDARY CONTAINMENT

Chemical containers are subject to releases for a variety of reasons. The integrity of the container structure may fail due to corrosion or destructive forces, they may be overfilled, the lids may not be sealed properly, or connections may leak. Once released, the chemicals can cause significant and serious contamination of environmental media including soil, groundwater, and surface waters. Cleanup of such releases can be very costly.

For these reasons, there are local, state, and federal environmental regulations, and DOA policies that specify the use of secondary containment. The regulations apply to storage of chemical products, RCRA hazardous wastes, as well as oil and other petroleum products. Secondary containment may be concrete walls surrounding bulk storage tanks, double-walled tanks, containment pallets, drum surrounds, among other devices. In accordance with DOA policies and procedures, all newly installed above ground storage tanks (ASTs) shall be equipped with secondary containment berms.

Secondary containment for outdoor bulk chemical storage areas should have a minimum capacity that will hold 10 percent of the entire volume stored, or the volume equal to the largest container inside the containment, whichever is greater, plus an additional capacity for precipitation from a 25-year storm event. Run-on into the containment system must be prevented. The containment structure should be inspected frequently to identify releases or storm water accumulations. Any liquids accumulated in the containment should be removed and disposed in accordance with applicable regulations. Typically, this will involve vacuuming the contents from the containment area for off-site disposal.

Secondary containment for drums and smaller chemical containers must be employed when the containers are in use or are not tightly sealed. Unopened containers can be placed on regular pallets to facilitate inspection of the container integrity and notice of leaks while the chemicals are not being used. Once opened for use, chemical containers and drums must be placed on secondary containment pallets or other appropriate containment devices. Any spilled liquids or materials should be removed from the containment devices promptly and be properly reused or disposed.

Open containers that are mounted on carts and/or are wheeled out to service aircraft must be mounted on enclosed carts or carts with a containment system to prevent leakage. In addition, secondary containment devices such as drip pans should be used around valves, hoses, fittings, or other connections where chemical leaks may occur. The containment devices should be checked regularly and emptied on a schedule that ensures the device does not overflow.

5.0 MATERIAL DATA SAFETY SHEETS

Material Safety Data Sheets (MSDSs) are provided by the product manufacturer and provide specific manufacturers information about a given product or chemical. At minimum, the MSDS will:

- describe the product's physical and chemical properties,
- provide handling and disposal instructions, and
- provide instructions for proper responses in the event of a spill or exposure.

OSHA safety and "right to know" regulations require that MSDSs are maintained for all products that contain hazardous substances. The MSDSs must be maintained in a readily accessible location and all employees who use, or may be potentially exposed to, the products must be trained in the use of MSDS and must know where they are kept. During inspections by the DOA or other jurisdictional agencies, the MSDS will be reviewed.

6.0 EMPTY CONTAINERS AND DRUMS

Pursuant to the good house keeping best management practice:

- Empty drums and containers shall not be stored outdoors subject to precipitation events or accumulated at a facility.
- Once emptied, the drums and containers should be properly disposed of at an approved off-site facility, or recycled/reused as appropriate. Often, chemical vendors will pick up empty drums and reuse them.
- Empty drums and containers should not be left open and exposed to rainfall. Should rainfall accumulate in an empty container, the liquids must be properly characterized and disposed according to applicable regulations.
- Empty drums and containers should not be accessible to unauthorized personnel and should not be used for any purpose for which they were not intended.

Operators should recognize the potential liabilities associated with the loss of control of empty drums. It is not uncommon for drums to be used for illicit disposal of hazardous wastes and other unwanted materials. The drums could be tracked back to the source and the original drum owner may be held responsible.

7.0 FIREPROOF STORAGE CABINETS

The Uniform Fire Code (UFC) requires that all aerosol cans and all flammables, such as paint cans, be stored in fireproof cabinets when not in use. The DOA will ask to see proper storage of flammable materials in fireproof cabinets during site inspections.

8.0 EMERGENCY CONTACTS

In a life-threatening emergency, call 911 immediately. Tenants should have a list of emergency phone numbers posted next to the telephones in their leasehold. Following is a sample list of the minimum phone numbers that should be displayed:

ABIA Emergency Coordinator	911
Ambulance	911
Air Ambulance	911
Hospital	911
Fire	911
Police	911
ABIA Environmental Coordinator - Kane Carpenter	530-6621, 748-3263
COA Watershed Protection Department	512-974-2550;
COA Water and Wastewater Utilities Department	24-hour hotline 512-972-1000
Texas Emergency Release Hotline	1-800-832-8224
National Response Center	1-800-424-8802