

5.G.1 HAZARDOUS WASTE

FAA actions to fund, approve, or conduct an activity may require consideration of hazardous material, pollution prevention, and solid waste impacts in the National Environmental Protection Act (NEPA) documentation. Section 10.2 of FAA Order 1050.1.E, Change 1, *Environmental Impacts: Policies and Procedures*, dated March 20, 2006, states that an environmental document prepared for such an activity, should demonstrate that the FAA has determined whether hazardous wastes will be generated, disturbed, transported or treated, or stored or disposed by the action under consideration.

The following sections describe regulations governing hazardous waste storage, transportation, and disposal, as well as, the hazardous waste conditions at FLL for existing conditions.

5.G.1.1 Regulatory Context

5.G.1.1.1 FEDERAL

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): The CERCLA of 1980 was amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. The purpose of CERCLA is to conduct an increasingly complex series of evaluations of Federally-listed suspected hazardous waste sites to determine if those sites pose sufficient threats to human health and the environment to become eligible for Federally-funded investigation and clean up under Superfund. This act has four basic elements:

- The establishment of a system for gathering and analyzing information for characterizing contaminated sites (this information is used in the development of the U.S. Environmental Protection Agency (USEPA) National Priorities List);
- The establishment of Federal authority to respond to hazardous substance emergencies and cleanup leaking sites;
- The creation of a trust fund to pay for removal and remedial actions; and
- Assignment of liability for cleanup and restitution costs to persons who are responsible for hazardous substance releases.¹

Community Environmental Response Facilitation Act: The Community Environmental Response Facilitation Act, PL 102-426, amends CERCLA. It requires that, prior to the termination of Federal activities on any real property owned by the Federal Government, agencies must identify real property where no hazardous substance was stored, released, or disposed of. The purpose is to identify property that offers the greatest opportunity for reuse and redevelopment.

¹ Title 42 United States Code 9601-11050, 10 United States Code 2701-2810 et. al.

Pollution Prevention Act: The Pollution Prevention Act of 1990 established that it is the national policy of the U.S. that, whenever feasible:

- pollution should be prevented or reduced at the source;
- pollution that cannot be prevented should be recycled in an environmentally safe manner;
- pollution that cannot be prevented or recycled should be treated in an environmentally-safe manner; and
- disposal or other release into the environment should be employed only as a last resort, and should be conducted in an environmentally-safe manner.²

Toxic Substances Control Act (TSCA): The TSCA of 1976 states that it is the policy of the U.S. that:

- adequate data should be developed with respect to the effect of chemical substances and mixtures on health and the environment, and that the development of such data should be the responsibility of those who manufacture and those who process such chemical substances and mixtures;
- adequate authority should exist to regulate chemical substances and mixtures that create an unreasonable risk of injury to health or the environment, and to take action with respect to chemical substances and mixtures which are imminent hazards; and
- authority over chemical substances and mixtures should be exercised in such a manner as not to impede unduly or create unnecessary economic barriers to technological innovation while fulfilling the primary purpose of the TSCA to assure that such innovation and commerce in such chemical substances and mixtures do not create an unreasonable risk of injury to health or the environment.³

Resource Conservation and Recovery Act (RCRA): The RCRA of 1976, which amended the Solid Waste Disposal Act, addresses non-hazardous (Subtitle D) and hazardous (Subtitle C) waste management activities. The Hazardous and Solid Waste Amendments of 1984 strengthened RCRA's waste management provisions and added Subtitle I, which governs underground storage tanks (USTs). The Federal Facility Compliance Act, 1992 (FFCA) amended RCRA with the primary purpose of ensuring a complete and unambiguous waiver of sovereign immunity with regard to imposition of administrative and civil fines and penalties on Federal facilities.

Regulations promulgated pursuant to Subtitle C of RCRA establish a "cradle-to-grave" system governing hazardous waste from the point of generation to disposal. RCRA hazardous wastes include the specific materials listed in the regulations:⁴

² Executive Order 12856, Federal Register, Volume 58, Number 150.

³ Title 15, United States Code, Chapter 53.

⁴ Title 40, Code of Federal Regulations, Parts 260 through 299.

- commercial chemical products designated with the code "P" or "U;"
- hazardous wastes from specific industries/sources designated with the code "K;"
- hazardous wastes from non-specific sources, designated with the code "F;" or
- materials that exhibit a hazardous waste characteristic, such as ignitability, corrosivity, reactivity, or toxicity and are designated with the code "D."

Regulated entities that generate hazardous waste are subject to waste accumulation, manifesting, and record-keeping standards. Facilities generally must obtain a permit from the USEPA or from a state agency authorized by the USEPA to implement the permitting program if they store hazardous wastes for more than 90 days before treatment or disposal. Facilities may operate "less than 90-day" tanks or containers of hazardous wastes without a permit. Subtitle C permits contain general facility standards such as contingency plans, emergency procedures, record-keeping and reporting requirements, financial assurance mechanisms, and unit-specific standards. The RCRA contains provisions for conducting corrective actions that govern the cleanup of releases of hazardous waste or constituents from solid waste management units at RCRA treatment, storage, and disposal facilities.⁵

Many operators and organizations have a variety of operations that result in the generation and management of different types of solid and hazardous waste. These operations may be subject to specific parts of RCRA, depending on the type of waste generated, its management (e.g., stored, transported) and disposal. Most RCRA requirements are not industry-specific but apply to any entity that generates, transports, treats, stores, or disposes of hazardous waste. The following lists some of the more pertinent RCRA regulatory requirements:

- Identification of Solid and Hazardous Wastes delineates the procedure every generator must follow for determining whether the material in question is considered a hazardous waste or solid waste, or is exempted from regulation.⁶
- Standards for Generators of Hazardous Waste establish the responsibilities of hazardous waste generators including: obtaining a USEPA identification number, preparing a manifest, ensuring proper packaging and labeling, meeting standards for waste accumulation units, and meeting record-keeping and reporting requirements.⁷

⁵ Title 40, Code of Federal Regulations, Part 264, Subpart S and Section 264.101.

⁶ Title 40, Code of Federal Regulations, Part 261.

⁷ Title 40, Code of Federal Regulations, Part 262.

- Land Disposal Restrictions (LDR) is a regulation that prohibits the disposal of hazardous waste on land without prior treatment. Under the LDR program, materials must meet LDR treatment standards prior to placement in an RCRA land disposal unit (e.g. landfill, land treatment unit, waste pile, or surface impoundment).⁸
- Used Oil Management Standards impose management requirements affecting the storage, transportation, burning, processing, and re-refining of the used oil.⁹
- Tanks and Containers, as well as any unit used to store, treat, or dispose of hazardous waste, are regulated under RCRA. Tanks and containers used to store hazardous waste with a high volatile organic concentration must meet emission standards under RCRA. Regulations require generators to test the waste to determine the concentration of the waste, to satisfy tank and container emissions standards, and to inspect and monitor regulated units.¹⁰
- Boilers and Industrial Furnaces that use or burn fuel containing hazardous waste must comply with unit design, provide performance standards and required emissions monitoring, and restrict the type of waste that may be burned.¹¹

Executive Order 12088: Executive Order 12088, as amended, directs Federal agencies to comply with “applicable pollution control standards” in the prevention, control, and abatement of environmental pollution; and consult with the USEPA, state, interstate, and local agencies concerning the best techniques and methods available for the prevention, control, and abatement of environmental pollution.¹²

Executive Order 12856: Executive Order 12856 states that the Federal Government should provide information to the public concerning toxic and hazardous chemicals and extremely hazardous substances at Federal facilities, and plan for and prevent harm to the public through the planned or unplanned releases of chemicals.¹³

Executive Order 12580: Executive Order 12580, Superfund Implementation, amended by Executive Orders 13016 and 12777, delegates most response authorities to the USEPA and the U.S. Coast Guard (USCG) for abatement. Agencies must participate in response teams with the opportunity for public comment, before removal action is made.¹⁴

Clean Water Act: The Clean Water Act of 1972 (CWA) is the principal Federal statute protecting navigable waters and adjoining shorelines from pollution. Since its enactment, the CWA has formed the foundation for regulations detailing specific requirements for pollution prevention and response measures. Section 311 of the CWA addresses pollution from oil and hazardous substance releases, providing the

⁸ Title 40, Code of Federal Regulations, Part 268.

⁹ Title 40, Code of Federal Regulations, Part 279.

¹⁰ Title 40, Code of Federal Regulations, Parts 264-265, Subpart CC.

¹¹ Title 40, Code of Federal Regulations, Part 266, Subpart H.

¹² Federal Aviation Administration Order 1050.1E, Appendix A, Section 10.

¹³ Executive Order 12856, Federal Register, Volume 58, Number 150.

¹⁴ Federal Aviation Administration Order 1050.1E, Appendix A, Section 10.

USEPA and the USCG with the authority to establish a program for preventing, preparing for, and responding to oil spills that occur in navigable waters of the U.S. The USEPA implements provisions of the CWA through a variety of regulations, including the National Oil and Hazardous Substances Pollution Contingency Plan (Contingency Plan) and the Oil Pollution Prevention Regulation.¹⁵

The first Contingency Plan was prepared in 1968 for the purpose of providing organizational structure and procedures for preparing for, and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants.¹⁶ The Oil Pollution Prevention Regulation was issued by the USEPA in 1973 to address the oil spill-prevention provisions of the CWA.

Oil Pollution Act: The Oil Pollution Act of 1990 was established to improve the nation's ability to prevent and respond to oil spills by establishing provisions that expand the Federal government's ability, and provide the money and resources necessary to respond to oil spills.

The Oil Pollution Act provided new requirements for contingency planning by both government and industry. The Contingency Plan has been expanded in a three-tiered approach:

- The Federal government is required to direct all public and private response efforts for certain types of spill events;
- Area Committees - composed of Federal, state, and local government officials, must develop detailed, location-specific Area Contingency Plans; and
- Owners or operators of vessels and certain facilities that pose a serious threat to the environment must prepare their own Facility Response Plans.¹⁷

The Oil Pollution Prevention Regulation (Title 40, CFR, Part 112) was amended to incorporate requirements of the Oil Pollution Act, and now forms the basis of the USEPA's Oil Spill Prevention, Control, and Countermeasure (SPCC) program.

The SPCC program seeks to prevent oil spills from certain aboveground storage tanks (ASTs) and USTs. As recently amended, the regulation applies to non-transportation-related facilities that:

- Have an aggregate storage capacity greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons; and
- Could reasonably be expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the U.S. or adjoining shorelines.

The regulation requires each owner or operator of a regulated facility to prepare an SPCC Plan.¹⁸

¹⁵ Internet web site: <http://www.epa.gov/oilspill/cwaover.htm/>. Last updated: March 9, 2006.

¹⁶ Title 40 Code of Federal Regulations, Chapter 1, Subpart A.

¹⁷ Internet web site: <http://www.epa.gov/oilspill/opaover.htm/>. Last updated: March 9, 2006.

¹⁸ Internet web site: <http://www.epa.gov/oilspill/opprover.htm/>. Last updated: March 9, 2006.

5.G.1.1.2 STATE AND LOCAL

State of Florida: In the State of Florida, Chapter 376, Chapter 403, and Section 381.0098 of the Florida Statutes (FS) address solid and hazardous waste management. Regulations related to hazardous waste and hazardous materials are contained within Florida Administrative Code (FAC) chapters:

- 62-730, *Hazardous Waste*
- 62-704, *Certification of Resource Recovery Equipment*
- 62-740, *Petroleum Contact Water*
- 62-761, *Petroleum Storage Systems (ASTs)*
- 62-770, *Petroleum Contamination Site Cleanup Criteria*
- 62-771, *Petroleum Contamination Site Priority Ranking Rule*
- 62-773, *Reimbursement for Petroleum Contamination Site Cleanup*
- 62-777, *Contaminant Cleanup Target Levels*
- 62-780, *Contaminated Site Cleanup Criteria*
- 62-785, *Brownfields Cleanup Criteria Rule*
- 62-788, *Voluntary Cleanup Tax Credit Rule*

The Florida Department of Environmental Protection (DEP) Bureau of Solid and Hazardous Waste is responsible for the planning, management, permitting, and regulation of solid waste and hazardous waste. The Bureau of Petroleum Storage Systems administers Florida's aboveground and underground pollutant storage tank regulation program, and the petroleum cleanup program. The Bureau of Waste Cleanup is responsible for all activities relating to the cleanup of sites including Brownfields, contaminated by hazardous wastes or other pollutants, such as dry cleaning solvents, and for conducting investigations of groundwater contamination.¹⁹

Broward County: For Broward County, Chapter 27 of the Broward County Code of Ordinances addresses pollution control. Most of the hazardous waste regulations are contained in Article XII, *Hazardous Materials*; Article XIII, *Wellfield Protection*; and Article XVII, *Waste Transporters*. The regulations concerning storage tanks are contained in Article X, *Storage Tanks*.

The Environmental Assessment and Remediation Section of the Broward County Environmental Protection Department (BCEPD) manages state-funded petroleum clean-up programs for the Florida DEP for the assessment and clean-up of petroleum contamination originating from storage tank systems. The Environmental Assessment and Remediation Section has responsibility for oversight, licensing, assessment, and remediation of non-state funded cleanup

¹⁹ Internet web site: <http://www.dep.state.fl.us/waste/>, FDEP. Last Updated: August 14, 2006.

projects involving petroleum and other chemical contamination; and sites which are in designated Brownfield areas, and are addressed through a Brownfield Site Rehabilitation Agreement with Broward County.²⁰

5.G.1.2 Existing Conditions at Fort Lauderdale-Hollywood International Airport (FLL)

5.G.1.2.1 SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PROCEDURES

Facilities with ASTs and USTs, which fall under the USEPA regulatory requirements for storage tanks, are required to have spill prevention methods in place in accordance with Federal, state, and local guidelines.

An SPCC Plan has been prepared for the areas of the airport operated and controlled by Broward County, in accordance with the requirements of Title 40 CFR Part 112 and the requirements of Chapter 62-761 FAC. The SPCC Plan describes the oil storage and handling activities of the airport and the procedures, methods, and equipment used to prevent a discharge of oil from reaching navigable waters or adjoining shorelines.²¹

The SPCC Plan outlines the procedures to be followed in the event of a spill and divides the operations of Broward County into separate management areas. The following management areas are designated for the storage and handling of oil products in ASTs and USTs:

- West Compound Vehicular Fueling Facility
- Aircraft Rescue Fire Fighting Station
- Emergency Generator Sites

The SPCC Plan discusses the potential for spills at each location and the associated results/impacts of the potential spills. Procedures for preventing spills and the appropriate actions to be taken in case of a spill are addressed in further detail for each of the areas.

Lease agreements drafted by Broward County for airport tenants require that each tenant comply with all existing and future Federal, state, local, and county environmental laws, ordinances, and regulations, and the requirements of any Development Order covering the airport, issued to the county pursuant to Chapter 380, FS, including without limitation, those addressing the following:

²⁰ Internet web site: <http://www.broward.org/pprd/ppi01500.htm>. BCEPD. Last Revision: n.d.

²¹ Spill Prevention Control and Countermeasure Plan, Fort Lauderdale/Hollywood International Airport, Cherokee Enterprises, Inc., Revised April 2003.

- (1) Proper use, storage, treatment, and disposal of materials, including contracting with a licensed hazardous waste transporter and/or treatment and disposal facility to assure proper transport and disposal of hazardous waste and other regulated materials; and
- (2) Adequate inspection, licensing, insurance, and registration of existing and future storage tanks, storage systems, and ancillary facilities to meet all county, local, state, and Federal standards, including the installation and operation of adequate monitoring devices and leak detection systems.

The lease agreement states that the lessee shall have an updated contingency plan related to releases, which provides minimum standards and procedures for storage of regulated materials, prevention and containment of spills and releases, and transfer and disposal of regulated materials. The plan shall describe design features, response actions, and procedures to be followed in case of releases.²²

Chapter 27, Article X of the Broward County Code and Chapters 62-761 and 62-762 of the FAC, require that facility owners register all USTs (with capacity greater than 110 gallons) and ASTs (with capacity greater than 550 gallons) with the state and county. The facilities are required to have vapor monitoring plans in place and are required to complete SPCC plans (if applicable to the facility) in accordance with 40 CFR Part 112.

Storage tank facilities at the airport (that meet the regulatory criteria) are required to complete SPCC plans similar to the one completed by FLL, in accordance with Federal, state, and local requirements. Adherence to the regulatory guidelines is managed by the local and state regulatory agencies, BCEPD and Florida DEP.

5.G.1.2.2 HAZARDOUS BUILDING MATERIALS

Some former building practices used construction materials that are currently considered hazardous. Of these, asbestos, lead-based paint, and polychlorinated biphenyls (PCBs) are the materials most commonly found in older building construction. A review of available file information did not reveal any site-specific occurrences of lead-based paints or PCBs. Therefore, the discussion of hazardous building materials is limited to asbestos-related occurrences. Although no documentation of lead based paint was found, structures pre-dating 1978 may contain lead based paint. Therefore, any activity on airport property that involves a structure potentially containing this material would require a survey to determine if lead based paint is present and ensure it would be properly handled and disposed of in compliance with all federal and local laws.

²² Broward County Aviation Department Leasehold document, Section 33: Environmental Compliance; Environmental Containment and Removal.

Asbestos: Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is commonly used as an acoustic insulator, thermal insulation, fire proofing, and in other building materials. Many products are in use today that contain asbestos.²³

A number of asbestos-containing materials are considered friable. A friable material is one that, when dry, can be reduced to dust by applying hand pressure.²⁴ Asbestos fibers released into the air pose a threat to human health through inhalation. Once the fibers get embedded in the lungs, they can cause a number of lung-related diseases in humans. Asbestos was banned in the U.S. between the years 1973 to 1989, for the following asbestos-containing materials:

- Corrugated paper
- Rollboard
- Commercial paper
- Specialty paper
- Flooring felt
- New uses of asbestos

The TSCA, Subchapter 1, Section 2605 and FAC Chapter 62-257 regulate the use, storage, removal, and disposal of asbestos containing materials. These regulations allow the following asbestos-containing materials to be utilized in building materials: asbestos-cement corrugated sheet, asbestos-cement flat sheet, pipeline wrap, roofing felt, vinyl asbestos floor tile, asbestos-cement shingle, millboard, asbestos-cement pipe, non-roofing coating, and roofing coating,²⁵ because they are not friable and do not pulverize easily, releasing asbestos fibers into the air. Thus, these materials do not pose a threat to human health.

Review of available data from Broward County did not identify existence of an airport-wide survey for asbestos. However, asbestos surveys have been performed at the airport on a location-by-location basis.

The County data identified that asbestos surveys had been conducted from 1994 to 2004 for the following locations:²⁶

- 1100 SW 7th Avenue (1995)
- 1401 SW 39th Street/3940 SW 12th Terrace (1994)
- Avis/1555 N. Airport Perimeter Road (2004)
- Carnival Cruise Buildings 2, 15, 39, 43 (1998)
- Chassis Master/Buildings 1 and 2 (1996)

²³ Internet web site: <http://www.epa.gov/asbestos/>, USEPA, last updated November 2006.

²⁴ Internet web site: <http://www.epa.gov/region4/air/asbestos/asbmatl.htm>, USEPA, last updated March 2006.

²⁵ Internet web site: <http://www.epa.gov/asbestos/pubs/asbbans2.pdf>, USEPA, May 18, 1999.

²⁶ Broward County Aviation Department Environmental File Review, July 2006.

- Dixie Metals/2251 SW 36th Street (1995)
- Dollar Rent-a-Car/1405-1425 S. Airport Perimeter Road (2004)
- Hertz (1996)
- Museum Building/Building 8 (1997)
- National Car Rental (1998)
- Pan American Building/Maintenance (1998)
- Parcel 5/Jansko (1995)
- Parcel 1035/1087 (1995)
- Parcels 1076/1079/1080/1081/1083 (1994)
- Parcel 1159/1078 (1996)
- Parcels 1283/1419.121 (1995)
- Parcel 1143-2257 SW 42nd Street (1994)
- Parcel 1648-2311 SW 30th Street (1995)
- SW Building demolition: SW 23rd Street, 24th Court, 25th Avenue, 26th Avenue, 32nd Street, 33rd Street, 34th Street, 36th Street, 42nd Court, 43rd Street (1995)

The file review revealed that the majority of the above-mentioned properties either did not have asbestos in the facility or the asbestos discovered was removed as part of previous renovation/demolition processes at the site. Surveys for these buildings would need to be conducted, as necessary, before building demolition would occur.

5.G.1.2.3 FUELING FACILITY AND STORAGE

By volume, the majority of the hazardous materials stored at FLL are fuels. The fuels utilized at the airport, for the most part, consist of aviation fuel, diesel, and gasoline.

Of the facilities below, the Broward County Aviation Department (BCAD) Fuel Farm is the airport's primary fuel storage facility and is operated and maintained by BCAD. It is supplied by a fuel pipeline system (referred to as the Buckeye Pipeline) connected to Port Everglades. The fuel farm provides the main source of fueling utilized by commercial aircraft at the airport. A section of the Buckeye Pipeline is proposed to be relocated to the east side of U.S. Highway 1 on existing airport property within the next four to five years. (See Chapter Seven, *Cumulative Impacts*, and Appendix N, *Hazardous and Waste Materials*, Section 4.1.2, *Aviation Fuel Pipeline at FLL*.)

The following facilities are the main suppliers of aviation and vehicular fuel at FLL:

- BCAD Fuel Farm – 3451 SW 2nd Avenue
- Signature Fueling Facility – 4050 SW 11th Terrace
- National Jets – 3415 SW 9th Avenue

- Sheltair Jet Center – 1551 SW 43rd Street
- Lauderdale Small Boat Club – 1740 SW 42nd Street
- Azorra Aviation – 240 SW 34th Street

The six facilities, mentioned above, dispensed approximately 223 million gallons of aviation, diesel, and gasoline fuel at FLL in 2004.²⁷ It is assumed that the fuel consumption is related to air transportation (i.e., cargo and passenger) and vehicular transportation (i.e., aircraft service vehicles, baggage handlers, cargo trucks, etc.), and is linked to aircraft operations.

A total of 66 ASTs and USTs are utilized throughout FLL to store the fuel used during airport operations. It is estimated that the total storage of aviation, diesel, and gasoline fuel as of 2004 is as follows:

Aviation Fuel:

- | | |
|-------------------------|------------------------|
| • North Side Facilities | 3,853,000 gallons |
| • West Side Facilities | <u>198,000 gallons</u> |
| Total | 4,051,000 gallons |

Diesel:

- | | |
|-------------------------|-----------------------|
| • North Side Facilities | 32,800 gallons |
| • West Side Facilities | 23,100 gallons |
| • East Side Facilities | <u>43,500 gallons</u> |
| Total | 99,400 gallons |

Gasoline:

- | | |
|-------------------------|-----------------------|
| • North Side Facilities | 4,000 gallons |
| • West Side Facilities | 25, 200 gallons |
| • East Side Facilities | <u>64,000 gallons</u> |
| Total | 93,200 gallons |

A review of the Florida DEP Discharge Cleanup Summary for Broward County,²⁸ for the baseline year 2004, identified only one discharge record for FLL. BAX Global reported a spill of 50 gallons of jet fuel, which was cleaned up as of February 2005. The Florida DEP requires that a spill or overfill of a regulated substance to the soil equal to or exceeding 25 gallons be reported through the Florida DEP discharge report form (DRF).²⁹

In addition to the BAX Global spill, a review of County fuel spill reports for baseline year 2004 also identified the following fuel discharges at the airport:

²⁷ Fuel Consumption Data, BCAD, 2004.

²⁸ Internet website:
http://www.dep.state.fl.us/waste/quick_topics/database_reports/pages/stcm/petro_reports.htm.

²⁹ Internet website:http://www.dep.state.fl.us/waste/quick_topics/forms/documents/62-761/761_1.pdf

- August 4, 2004 – A National Jets fuel truck leaked approximately one-gallon of JET-A fuel into a storm drain. Clean up was coordinated and completed after discovery of the leak.
- September 8, 2004 – A Jet Center tanker released approximately 10 to 12 gallons of diesel on Airport Perimeter Road. No stormwater impacts were recorded. The site was secured and clean up completed.
- October 5, 2004 – A fueling truck released 25 gallons of diesel at the Budget Rent-a-Car facility on Taylor Road. The release occurred due to a valve failure on the fueling truck, which was filling the onsite storage tanks. The spill was contained on the asphalt and removed. The spill was not included in a DRF to the Florida DEP since it was contained prior to reaching the soil or groundwater.
- November 8, 2004 – Budget Rent-a-Car bus caught on fire. Minor oily run-off leaked into the storm drains. Emergency response was dispatched to the area and the site was cleaned.

Storage Tanks: A number of storage tanks were identified at the airport during a review of available tank records. The storage tanks at FLL are required to be in compliance with state regulations, FAC Chapter 62-761 and FAC Chapter 62-762, and with the Broward County Code, Section 27, Article X, *Storage Tanks*. Each of these regulations defines the requirements for each facility owner with a storage tank onsite.

Aboveground Storage Tanks: ASTs are registered with the state department responsible for the administering the storage tank program. In the case of sites located within Broward County, Florida, the local agency in charge of administering the program is the BCEPD, which reports directly to the Florida DEP. A total of 16 airport facilities were identified with ASTs onsite. Of those facilities, a total of 41 ASTs of varying sizes are currently being utilized at FLL. Each facility, as previously mentioned, is required to comply with state and local regulations applicable to ASTs. Each facility constructed after July 13, 1998 is required, under Section 27, Article X, of the Broward County Code, to have dispenser liners, secondary containment, piping sumps, and integral piping that are constructed in accordance with the Broward County Code.

A description of the ASTs is more completely addressed in **Table 5.G.1-1, *Aboveground Storage Tank Data***, on the following page. The approximate locations of the ASTs at FLL are graphically depicted on **Exhibit 5.G.1-1, *Locations of Facilities with Aboveground Storage Tanks (ASTs)***, at the end of this section.

Underground Storage Tanks: Registered USTs are regulated under Subtitle I of the RCRA and must be registered with the state department responsible for administering the UST program. In the case of sites located within Broward County, Florida, the local agency in charge of administering the program is the BCEPD, which reports directly to the Florida DEP. Ten airport facilities were identified with active USTs on the property. Of those facilities, 25 USTs of varying sizes are currently being utilized at FLL.

A description of the USTs is more completely addressed in **Table 5.G.1-2, *Underground Storage Tank Data***. The approximate locations of the USTs at FLL are graphically depicted on **Exhibit 5.G.1-2, *Locations of Facilities with Underground Storage Tanks (USTs)***, at the end of this section.

**Table 5.G.1-1
ABOVEGROUND STORAGE TANK DATA
Fort Lauderdale-Hollywood International Airport**

Site Number	Site Location	Storage Capacity/ Hazardous Material	Operational Status
North Side Facilities			
N1	National Jets, Inc.	(1) 2000 gallon/diesel fuel (1) 2000 gallon/unleaded fuel (1) 275 gallon/diesel fuel	Active
N2	Miami Aviation	(1) 250 gallon/waste oil	Active
N3	H-Aviation (Victory Aviation)	(1) 500 gallon/diesel fuel	Active
N4	BCAD Fuel Farm and Storage	(2) 1.15 million gallon/grade-A jet fuel (1) 1.5 million gallon/grade-A jet fuel	Active
N5	Delta Airlines Ground Service Equipment Maintenance	(1) 275 gallon/waste oil	Active
West Side Facilities			
W1	Sheltair Aviation Center – Fuel Farm	(6) 25,000 gallon/grade-A jet fuel (2) 15,000 gallon/aviation fuel (1) 15,000 gallon/unleaded fuel	Active
W2	BCAD Airport Maintenance	(1) 15,000 gallon/diesel fuel (1) 6000 gallon/unleaded fuel (2) 500 gallon/diesel	Active
W3	BCAD Shuttleport	(1) 150 gallon/unleaded fuel (1) 250 gallon/waste oil (1) 300 gallon/new motor oil	Active
W4	Avis Rent-A-Car Systems – Maintenance Facility	(1) 300 gallon/waste oil (1) 500 gallon/waste oil	Active
W5	FAA Air Tower Control Terminal	(2) 2000 gallon/diesel fuel	Active
W6	Signature Flight Support – Fueling Facility	(2) 275 gallon/diesel fuel	Active
East Side Facilities			
E1	BCAD Infield Parking Garage (Hibiscus)	(1) 6000 gallon/diesel fuel	Active
E2	Avis Rent-A-Car Systems – Rental Facility	(1) 500 gallon/new motor oil	Active
E3	Dollar Rent-A-Car	(2) 275 gallon/new motor oil (1) 20,000 gallon/unleaded fuel	Active
E4	Budget Rent-A-Car	(1) 2000 gallon/diesel fuel (2) 500 gallon/waste oil	Active
E5	Broward County Aircraft Rescue Fire Fighting Station	(1) 1500 gallon/diesel fuel	Active

Sources: Department of Planning and Environmental Protection Environmental Inquiry and Resource System Environmental Data Resources (October 2004)
Onsite Reconnaissance performed by Nova Consulting, Inc. (November 2004)

**Table 5.G.1-2
UNDERGROUND STORAGE TANK DATA
Fort Lauderdale-Hollywood International Airport**

Site Number	Site Location	Storage Capacity/ Hazardous Material	Operational Status
North Side Facilities			
N1	National Jets, Inc.	(2) 15000 gallon/jet diesel fuel (1) 15000 gallon/aviation gasoline	Active
N4	BCAD Fuel Farm and Storage	(2) 2000 gallon/aviation gasoline (2) 15000 gallon/diesel fuel (1) 2000 gallon/unleaded fuel (1) 4000 gallon/jet fuel (2) 2000 gallon/glycol	Active
West Side Facilities			
W6	Signature Flight Support – Fueling Facility	(2) 18000 gallon/jet fuel	Active
W7	Lauderdale Small Boat Club	(1) 4000 gallon/unleaded fuel	Active
W8	BCAD Airport Maintenance	(1) 2000 gallon/diesel fuel	Active
W9	BCAD Airfield Electrical Vault	(1) 550 gallon/diesel fuel	Active
East Side Facilities			
E2	Avis Rent-A-Car Systems – Rental Facility	(2) 12000 gallon/unleaded fuel (1) 10000 gallon/diesel fuel (1) 550 gallon/waste oil	Active
E3	Dollar Rent-A-Car	(2) 10000 gallon/unleaded fuel (1) 8000 gallon/diesel fuel	Active
E6	BCAD – Terminal 1	(1) 10000 gallon/diesel fuel	Active
E7	BCAD – Terminal 3	(1) 6000 gallon/diesel fuel	Active

Sources: Department of Planning and Environmental Protection Environmental Inquiry and Resource System
Environmental Data Resources (October 2004)
Onsite Reconnaissance performed by Nova Consulting, Inc. (November 2004)

Leaking Underground Storage Tanks (LUSTs): LUST records contain an inventory of reported LUST incidents. Florida DEP and BCEPD maintain the site records. A total of 19 LUST sites were identified at FLL. However, only five of the sites are considered active. This means that, although the tank is no longer leaking, unresolved contamination may still exist at the location (*See Petroleum Impacted Sites* below). A description of the LUST sites are more completely addressed in **Table 5.G.1-3, LUST Sites**, below. The approximate locations of the LUST sites at FLL are graphically depicted on **Exhibit 5.G.1-3, Locations of Facilities with Leaking Underground Storage Tanks (LUSTs)**, at the end of this section.

**Table 5.G.1-3
LUST SITES
Fort Lauderdale-Hollywood International Airport**

Site Number	Site Name	Site Address	Regulatory Status	Date Added To LUST List
North Side Facilities				
N1	National Jets, Inc.	3495 SW 9th Avenue	SRCO	6/20/80
N6	Ft. Lauderdale Jet Center	700 SW 34th Street	SRCO	6/11/86
N7	Walkers Aviation Services	500 SW 34th Street	Active	12/21/84
N8	Embraer Aircraft Corp	276 SW 34th Street	SRCO	6/22/89
N9	Hertz Rent A Car	1955 Airport Perimeter Road	SRCO	6/16/89
West Side Facilities				
W4	Avis Rent A Car System	1203 SW 41st Court	SRCO	5/12/89
W9	BCAD Field Vault	4150 SW 11th Terrace	Active	12/18/90
W10	Budget Rent A Car	1600 SW 40th Street	SRCO	9/11/96
W11	Federal Express Corp	1401 SW 41st Court	Inactive	2/20/91
W12	AMR Combs Florida, Inc.	4050 SW 11th Terrace	SRCO	1/15/99
East Side Facilities				
E2	Avis Rent A Car System	1555 North Airport Perimeter Road	Active	3/15/85
E3	Dollar Rent A Car	1425 South Airport Perimeter	SRCO	8/2/90
E3	Dollar Rent A Car	1405 South Service Road	Inactive	5/15/86
E5	BCAD Fire Rescue	FLL	SRCO	6/25/98
E8	National Car Rental	1795 Airport Perimeter Road	Inactive	5/4/90
E9	BCAD Parking Lot	320-A Terminal Drive	Inactive	3/16/98
E10	BCAD South Terminal	300 Terminal Drive	Active	1/28/85
E11	Associated Air Services	701 SW 48th Street	Inactive	11/26/84
E12	Budget Rent A Car #1905	1655 Airport Perimeter Road	Active	2/10/86

SRCO = Site Rehabilitation Completion Order

Sources: Department of Planning and Environmental Protection Environmental Inquiry and Resource System
Environmental Data Resources (October 2004)
Onsite Reconnaissance performed by Nova Consulting, Inc. (November 2004)

Petroleum Impacted Sites: A number of assessments have been conducted throughout the airport in the past 20 years. These assessments include, but are not limited to soil and groundwater sampling, soil/source removal, and bioremediation through the installation of injection wells.

The lease agreement drafted by Broward County for airport tenants requires that the lessee perform an environmental baseline assessment for the parcel within 180 calendar days following the commencement date of the lease agreement. If the lessee fails to complete the baseline assessment, the County may give notice

to the lessee that it will proceed to obtain the Environmental Baseline Assessment for the lessee. The lessee will thereafter be required to reimburse the County of all costs of such Environmental Baseline Assessment.³⁰

The lease agreement states that the county has the right to require the lessee to perform an Assessment and Facility Exit Inspection of the premises, prior to, and during the year following the termination of the lease at the airport.³¹

Facilities that are impacted by certain contaminants are required to complete contamination assessments for the site. A number of contamination assessment reports were reviewed for FLL. Of the reports reviewed, a significant number resulted in complete clean up of any on-site contamination and therefore, the environmental file was closed for these projects. However, certain areas at FLL still have documented contamination. The following sites at FLL have been identified as areas of potential contamination concern:

- Aircraft Services International Group (ASIG) – 3451 SW 2nd Avenue (North Side Facilities)
- Avis Rent-A-Car – 1555 Airport Perimeter Road (East Side Facilities)
- Dollar Rent-A-Car – 1425 S Airport Perimeter Road (East Side Facilities)
- FLL Terminal Area (East Side Facilities)
- Fort Lauderdale Jet Center – 1551 SW 43rd Street (West Side Facilities)
- Former National Car Rental – 1425 Merle Fogg Road (East Side Facilities)³²
- Value Rent-A-Car/Budget Rent-A-Car – 1030 Taylor Road (East Side Facilities)

The sites mentioned above have documented incidences of petroleum-based contamination in the soil and/or groundwater. A 2006 review of County files indicated that the contamination documented at the above-mentioned properties had not been addressed.

The following sites were identified as having LUSTs on-site. The information reviewed for these sites indicates that either, a) an updated assessment has not been performed to determine current contamination, or b) the site currently has some form of petroleum contamination on-site, which needs to be addressed.

³⁰ Broward County Aviation Department Leasehold document, Section 33: *Environmental Compliance; Environmental Containment and Removal*.

³¹ Broward County Aviation Department Leasehold document, Section 33: *Environmental Compliance; Environmental Containment and Removal*.

³² The facility was moved into "inactive" status by the 195 (by BCEPD), after a number of post-remedial groundwater monitoring events. The underground storage tanks were removed in 2002. Additional assessment was performed and the site was placed under a Natural Attenuation Monitoring Plan Approval Order by FDEP (July 20, 2005). The site has gone through a number of monitoring events for volatile organics in the groundwater. However, BCEPD has yet to approve a No Further Action proposal for this site until the groundwater results are below the natural attenuation levels for two consecutive sampling events. The last correspondence reviewed was from November 2007, in which, BCEPD requested that the quarterly groundwater monitoring at the site be continued.

The sites are listed as follows:

- Associated Air Services – 701 SW 48th Street (West Side Facilities)
- BCAD Parking Lot – 320-A Terminal Drive (East Side Facilities)
- BCAD Field Vault – 4150 SW 11th Terrace (West Side Facilities)
- Budget Rent-A-Car – 1655 Airport Perimeter Road (East Side Facilities)
- Federal Express Corporation – 1401 SW 41st Court (West Side Facilities)
- Walkers Aviation Services – 500 SW 34th Street (North Side Facilities)

Approximately half of the 13 potential areas of concern, listed previously, are located along the east side of the airport, close to the FLL terminal area.³³

Documented contamination along the north side of the airport has not recently been identified, with the exception of the ASIG facility and Walkers Aviation Services.

5.G.1.3 Federal and State Hazardous Waste File Search

5.G.1.3.1 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY INFORMATION SYSTEM (CERCLIS)

CERCLIS is a compilation of sites that the USEPA has investigated, or is investigating for the release or threatened release of hazardous substances. CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies, and private persons, pursuant to Section 103 of the CERCLA. CERCLIS included sites that are proposed to be, or are on the National Priorities List (NPL), and sites that are in the screening and assessment phase for possible inclusion on the NPL.

For 2004 Baseline conditions, one active CERCLIS site was identified within FLL. Sunstream Jet Center, located at 1355 SW 48th Street, along the southwest side of the airport, is being pursued for active clean up by the Florida DEP.

5.G.1.3.2 NATIONAL PRIORITIES LIST (NPL)

CERCLA, as amended, requires that the Contingency Plan include a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the U.S. The NPL constitutes this list and is intended primarily to guide the USEPA in determining which sites

³³ As of March 2008, one additional area of potential concern was identified; a fuel spill of approximately 17,000 gallons in the area of a pedestrian bridge project east of the Palm Garage. A site assessment and source removal was performed at the spill location. Broward County Environmental Protection Department (BCEPD) recommended this site for a Site Rehabilitation Completion Order (information provided by Mr. Matt Theisen, BCEPD, March 24, 2008). The recommendation was submitted to the Florida Department of Environmental Protection on March 3, 2008 and is pending approval by Florida DEP.

warrant further investigation to assess the nature and extent of public health and environmental risks associated with the site, and to determine what CERCLA-financed remedial action(s), if any, may be appropriate.³⁴

For 2004 Baseline conditions, no NPL sites were identified within a 1.5-mile radius of the center of FLL.

5.G.1.3.3 RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

The USEPA collects selective information on sites, which generate, transport, store, treat, and/or dispose of hazardous waste, biannually. Conditionally exempt small quantity generators are those sites that generate less than 100 kilograms (kg) of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators are those sites that generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators are those sites that generate over 1,000 kg of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Within the airport, no large quantity generators are listed. As of 2004, 27 sites are listed as small quantity generators within a 0.75-mile radius of the center of the airport. Addresses of the RCRA Small Quantity Generator sites identified at FLL and their approximate locations at the airport are graphically depicted on **Exhibit 5.G.1-4, Locations of RCRA Small Quantity Generator Sites**, at the end of this section.

5.G.1.3.4 HAZARDOUS MATERIALS SITE (HAZMAT)

The HAZMAT site records are maintained locally at Broward County Department of Planning and Environmental Protection (BCDPEP). HAZMAT sites are classified by facilities that store greater than 25 gallons of hazardous materials per month. The file search revealed 30 HAZMAT sites within a 0.75-mile radius of the center of the airport. Addresses of the HAZMAT sites identified at FLL and their approximate locations at the airport are graphically depicted on **Exhibit 5.G.1-5, Locations of Hazmat Sites**, at the end of this section.

Review of other Federal and state databases did not identify additional sites that were of concern to the proposed project. However, the BCEPD database identified additional contamination within the Detailed Study Area, at a BCAD facility located at 2360 SW 36th Street, where the contaminant of concern was chlorinated solvent. Therefore, while fuel-related contamination is anticipated to be the most prevalent, other site-specific sources of contamination may be encountered.

A complete Environmental Data Resources, Inc. (EDR) report, which highlights the databases reviewed and the results obtained, is found in Attachment 1 of Appendix N, *Hazardous and Waste Materials*.

³⁴ Title 40, Code of Federal Regulations, Part 300.

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