

**BIRCHWOOD AIR SERVICE  
MERRILL FIELD AIRPORT  
ANCHORAGE, ALASKA**

**SPILL PREVENTION CONTROL  
AND  
COUNTERMEASURE PLAN (SPCC)**

**PREPARED  
USING GUIDELINES FROM  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
SPILL PREVENTION REQUIREMENTS  
40 CFR, Part 112.1-11**

**May 14, 2009**

**CERTIFICATION**

**SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN  
BIRCHWOOD AIR SERVICE – MERRILL FIELD AIRPORT SELF SERVE FUEL  
FACILITIES**

***Facility Location***

The Birchwood Air Service fuel tank is located on the Merrill Field Airport, Alaska. One fueling tank is located at the Birchwood Air Service site that is used solely for Birchwood Air Service or their tenant. Merrill Field Airport is located at N61<sup>0</sup> 12' 48"; W149<sup>0</sup> 50' 40".

***Mailing Address***

Birchwood Air Service  
1000 Merrill Field Drive  
Anchorage, Alaska 99501

***Responsible Person***

Michael Osolnik (907) 276-0402 phone  
Manager (907) 276-0403 fax

***Management Approval***

This SPCC Plan for the Birchwood Air Service fuel dispensing site will be implemented as described herein. I certify under penalty of law that this document and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
Michael Osolnik, Manager

Date \_\_\_\_\_

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BIRCHWOOD AIR SERVICE – MERRILL FIELD, ALASKA**

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**I. INTRODUCTION**  
**40 CFR Part 112.7 (a)**

A. Regulatory Compliance

The Environmental Protection Agency (EPA) adopted 40 CFR, Part 112 in 1974, and substantially amended it in August 2002. These oil pollution prevention regulations require the preparation of a Spill Prevention Control and Countermeasure Plan (SPCC) for facilities with aboveground oil storage in excess of 1,320 gallons and, which due to their location, could reasonably be expected to discharge oil in harmful quantities into or upon the navigable waters of the United States or adjoining shorelines.

The Birchwood Air Service fuel storage facility has bulk storage capacity of 2,000 gallons of 100 LL Avgas above ground double wall tank. There are no navigable waters in the immediate vicinity of the fuel storage facility. There is little or no probability of discharge of oil into navigable waters. All storm water at Merrill Field drains through the Municipality of Anchorage airport controlled oil water separator system, which than flows into Chester Creek, North Fork.

The content of the SPCC Plan is to follow the sequence outlined in 40 CFR, Parts 112.7-11. The Plan is to be prepared in accordance with good engineering practices to prevent and mitigate damage to the environment from oil spills. The Plan must be certified by a licensed Professional Engineer and must have the full approval of management at a level with authority to commit the necessary resources.

Facility management is to review and evaluate the Plan at least once every five years, and update it when ever there is a change in facility design, construction, operation, or maintenance that could materially affect the potential for discharge to navigable water. The review is to be documented.

EPA regulations further stipulate, in 40 CFR, Part 112.4, that a written report is to be submitted to the EPA Regional Administrator, and appropriate state agency, when a facility has discharged more than 1,000 gallons in a single discharge, or discharged more than 42 gallons in each of two discharges within any 12 month period which enter navigable waters or adjoining shorelines. The report must include:

1. Name of facility;
2. Your name;
3. Location of the facility;
4. Maximum storage or handling capacity of the facility and normal daily throughput;
5. Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
6. An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
7. The cause of the discharge, including a failure analysis of the system or subsystem in which the failure occurred;

8. Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and
9. Such other information as the EPA Regional Administrator may reasonably require pertinent to the Plan or discharge.

In 1993, the regulations were expanded to require preparation and submittal of response plans from all facilities that can cause "substantial harm" due to potential oil spills. A Certification of Determination of Substantial Harm is to be completed, and, if necessary, a response plan prepared in accordance with 40 CFR, Part 112.20. The Merrill Field Airport fuel storage site does not meet EPA substantial criteria; therefore an EPA response plan is not required.

## **B. Facility Description**

The fueling facility is on a towered airport, and tenants are on the airport daily. The airport has installed Internet accessible, recording, digital cameras near the facility to monitor activities at the site, and to record any incident.

- Attached is an equipment site plan showing the tank and aircraft parking pad. The facilities are unmanned, with only qualified pilots using the fueling facilities.

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### ***Tank Accessories***

The system was installed in 1995. The system has numerous safety features, as listed below:

- The tank has a double wall construction, with the interstitial space monitored visually.
- The tank is UL 2085 listed and labeled, which includes ballistic and vehicle protection.

### ***Tank Fill System***

Fuel is delivered into the above ground storage tank by a pump on the fuel delivery tanker truck. The tanker truck connects to the low fill of the above grade tank with a fuel rated hose. The operator is in attendance during all fuel deliveries.

### ***Tank Construction***

The Facility consists of one 2,000 gallon Avgas 100 LL, ballistic and vehicle impact resistant steel above ground storage tank. The tank is an STI-P3 corrosion protected steel tank, certified by the Steel Tank Institute. The tank is double walled, with concrete filling in the interstitial space.

## **C. Spill Response**

There is a small spill response kit near the tank for immediate use for first response. The kit is stocked with sorbent pads, and other spill materials.

Spill potential and spill prevention measures are presented in the following sections of this SPCC Plan.

## **II. GENERAL INFORMATION**

### **40 CFR Part 112.4 (a) 40 CFR Part 112.7 (b)-(j)**

#### **A. Spill History - 40 CFR Part 112.4 (a)**

This section of the regulations require a written report be submitted to the EPA Regional Administrator, and appropriate state agencies, when a facility has discharged more than 1,000-gallons of fuel into navigable waters, or adjoining shorelines, or if it has discharged more than 42 gallons/discharge in two separate instances within a 12 month period into navigable waters, or adjoining shorelines. The content of the report is listed in Section I.A of this Plan.

Birchwood Air Service hereby confirms, as of May 2009, it has not discharged oil in quantities that require a written report be submitted to the EPA.

#### **B. Potential Spills - 40 CFR Part 112.7 (b)**

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The reasonably expected modes of major failure, rupture or accident in which fuel could be spilled from the Facility are as follows:

##### **Primary Storage Tank Leak or Failure**

The fuel storage tank is a double wall tank that meets the intent of the EPA containment guidelines. It is possible a tank leak or failure could result from mechanical failure, vandalism, or catastrophic event.

- The rate of flow would be variable depending on the size and location of the tank leak or failure.
- The total quantity of fuel that could reasonably be discharged is 1,800 gallons - the 90% ullage capacity of the tank.
- Fuel spilled would be contained within the steel outer wall secondary containment impound. If spilled fuel escapes secondary containment, it would then drain onto the surrounding ground. Spilled fuel would be recovered by airport personnel and response equipment.

##### **Storage Tank Overflow**

During delivery there is no potential for storage tank overflow due to the existence of the overflow valve inside the tank that will stop flow into the tank when it reaches 95% of its capacity.

##### **Leak or Fracture in Hose from Truck to Tank**

The potential for leaks or fractures in the hose between the delivery truck and the low fill connection is very low, since a trained operator is continuously monitoring fueling of the storage tank.

There is potential for overfill of aircraft fuel tanks while pilots are fueling their aircraft. The aircraft are to be fuelled on an asphalt parking area. Potential spills would most likely be small, since the pilot will be hand filling his airplane. The pilot cannot fill the aircraft without continuously holding the nozzle lever on since all automatic fill hold on latches have been removed, so he would have to be aware that he was overfilling the

plane if that occurred. The pilot would be paying for any spilled fuel, so this is an added incentive for him to not spill.

**C. Containment Structures - 40 CFR Part 112.7 (c)**

The steel tank is double walled, with the outer tank structure having a volume larger than the inner tank structure, which acts as the secondary containment mechanism.

The tank secondary containment structure complies with the intent of EPA regulations (40 CFR, Part 112.8).

Transfer hoses used at the tank during delivery are provided by, and tested by, the fuel supplier.

**D. Demonstration of Impracticability - 40 CFR Part 112.7 (d)**

This section of 40 CFR Part 112 states that if it is impracticable to install secondary containment, then additional prevention/response measures are to be implemented. Secondary containment measures that comply with EPA guidelines are in place at the Facility.

**E. Inspection, Tests, and Records - 40 CFR Part 112.7 (e)**

Facility personnel observe the above ground tank and dispensing equipment during daily duties. A thorough visual inspection of the exposed fuel system is conducted daily by Birchwood personnel.

The following additional inspections, tests, and records are required by EPA and are applicable to the Facility:

- Fuel handling personnel are to be trained in operations, maintenance and discharge prevention procedures pertinent to their duties. Training is to be conducted, at minimum, on an annual basis and is to be documented.
- A spill notification and report form is to be completed and maintained for each oil discharge resulting from Facility operations.
- EPA requires a documented review and evaluation of this SPCC Plan at least once every five years.

The Facility Responsible Person is to ensure adequate records are completed. Documentation is to be maintained for five years, except for records of significant tank repairs, modifications, integrity tests, and spill reports that should be maintained permanently.

**F. Personnel Training, and Spill Prevention Procedures - 40 CFR Part 112.7 (f)**

The Facility Responsible Person is accountable for overall operations, oil spill prevention, and personnel training.

All oil handling personnel are to be instructed in operations, maintenance, and spill prevention procedures pertinent to their duties. Training is to be provided at least once a year. Verification of training is to be maintained. At minimum, the training should address the following topics:

- A. Pollution control laws, rules, and regulations summary of 40 CFR Part 112 "Oil Pollution Prevention".
- B. Fuel Storage Systems:
  1. Purpose and application
  2. System elements:
    - a. Tanks
    - b. Pumps
    - c. Accessory equipment
  3. Operational and maintenance of equipment
- C. Spill Prevention and Control:
  1. Potential spill sources
  2. Procedures to prevent spills
  3. Review of control measures:
    - a. Secondary containment
    - b. Safety valves
    - c. Pump shutoff switches
- D. Emergency response procedures:
  1. Location and use of emergency phone numbers
  2. Location and use of fire extinguishers
  3. Location and use of spill cleanup materials

**G. Security - 40 CFR Part 112.7 (g)**

Security measures at the Facility include:

- The facility is routinely patrolled by the Municipality of Anchorage Airport Manager, and his maintenance people.
- Facility operators normally visit and inspect the site once every other day. A thorough visual inspection of the fuel system is to be conducted monthly.
- No smoking signs and emergency notification phone numbers are posted at the Facility.
- The tank storage area is lighted.
- Portable fire extinguishers are located both on the storage tank and on the adjacent transient shelter.
- Digital cameras monitor the facility, and record all motion in the area of the tank and dispenser. Activity is maintained on the computer hard disk by the Merrill Field Airport.
- A spill response kit is maintained in a weather tight container mounted directly to the end of the storage tank. Additional response equipment is maintained by the Anchorage International Airport.

**H. Tank Truck Loading Rack - 40 CFR Part 112.7 (h)**

There is no tank truck loading rack at this location..

**I. Brittle Fracture Evaluation - 40 CFR Part 112.7 (i)**

All tanks are shop-fabricated and not subject to brittle fracture evaluation.

**J. Additional Discharge Prevention Requirements - 40 CFR Part 112.7 (j)**

There are no known State rules, regulations, or guidelines pertaining to discharge prevention and containment that are applicable to this Facility which are more stringent than the requirements of this section.

**K. Notification Procedures**

In the event of a spill or discharge of fuel in quantities that may be harmful to public health or welfare or the environment, the following agencies must be notified. Those quantities that may be harmful include those that:

- Violate applicable water standards
- Cause a film or sheen or discolor the surface of water
- Cause a sludge or emulsion to be deposited beneath the surface of water or on shorelines

The agencies to notify are listed in the order of notification:

1. National Response Center: 800-424-8802
2. Environmental Protection Agency, ADEC: 907-269-7500
3. Municipality of Anchorage, Airport Management:
  - a. Dave Lundebly, Airport Manager, 907-343-6305
  - b. Alex Jumao-as; 907-343-6311

### **III. SPECIFIC REQUIREMENTS**

#### **40 CFR Part 112.8 (a) - (d)**

##### **A. Onshore Facility Requirements - 40 CFR Part 112.8 (a)**

In addition to the specific spill prevention and containment procedures listed under this section, the general requirements listed in Part 112.7 are addressed in Section II of this plan.

##### **B. Facility Drainage - 40 CFR Part 112.8 (b)**

- (1) The tank area is not diked, since a double walled UL 2085 protected tank is used for containment. There are no storm water drain lines from the tank storage area. Storm water that accumulates in the concrete base area flows by gravity to adjacent normal drainage patterns.
- (2) Storm water does not have to be manually removed from the tank area.
- (3) It is not feasible to alter site drainage to retain any potential discharge on Facility property. Piping not within secondary containment, and located where site drainage would not retain a spill on Facility property, shall be subject to daily visual examination. The integrity testing is intended to provide equivalent environmental protection, in accordance with 40 CFR, Part 112.7(a)(2) as applicable to 112.8(b)(3).
- (4) There are no ponds, lagoons or catchment basins designed to retain oil at this location.

Surface drainage from the storage area is to the northeast. Surface drainage typically flows toward the west, where it enters the Merrill Field Storm water system, which leads to an oil-water interceptor operated by the Airport. As described in the Facility Response Plan, spilled fuel would be contained and recovered by operators using response equipment maintained by the Merrill Field Airport.

##### **C. Bulk Storage Tanks - 40 CFR Part 112.8 (c)**

- (1) The tank materials and construction are compatible with the stored fuel at storage temperature and pressure. The tank meets the requirements of the Fire Code.
- (2) Secondary containment for the bulk storage tanks is discussed in Section II.C.
- (3) Discharge of storm water from diked areas is not applicable.
- (4) There are two underground storage tanks at the Facility.
- (5) There are no partially buried tanks at the Facility.
- (6) Integrity testing of storage tanks is conducted on a regular schedule and when material repairs are conducted. Section II.E identifies testing and record keeping procedures.
- (7) No tanks at the Facility are equipped with internal heating coils.
- (8) During fuel delivery, the fuel supplier maintains constant visual monitoring of the fuel connections and the offloading operation. A clock type level gauge is located directly above the fill area of the above ground tank to indicate tank levels. The buried tanks are sumped before filling begins, and are monitored using the Veeder

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Root automatic tank monitor system. The high level fill automatic shutoff further limits the possibility of overfilling the tank during a truck delivery.

- (9) No petroleum effluents are discharged into navigable waters.
- (10) Visible oil leaks from tank seams, gaskets, piping, pumps valves, and bolts are to be reported to the Facility Responsible Person and promptly corrected. Any accumulation of fuel is to be promptly removed.
- (11) There are no mobile tanks at this location.

**D. Facility Transfer Operations - 40 CFR Part 112.8 (d)**

- (1) There is no buried pipe at this facility.
- (2) There is no on-grade piping.
- (3) A thorough visual inspection of the entire fuel system is conducted daily by the Facility Responsible Person or designated alternate.
- (4) Vehicle access to the tank pad is restricted by the existence of a 9" high concrete pad. Exposed piping at the tank is not subject to normal vehicular traffic.

**40 CFR Part 112.9 - Not applicable**

**40 CFR Part 112.10 - Not applicable**

**40 CFR Part 112.11 - Not applicable**

**APPENDIX**

***APPENDIX A. ENGINEER'S OBSERVATIONS***

***APPENDIX B. SELF INSPECTION LOGS / DOCUMENTATION***

**APPENDIX A**  
**ENGINEER'S OBSERVATIONS**

Storm water runoff sketch.

**APPENDIX B**  
**SELF INSPECTION LOGS / ENGINEER'S DOCUMENTATION**

- Facility Inspection – Monthly Checklist
- Discharge Prevention Training Log
- Oil Spill Report Form