

EG 1-5: Maintenance of Aircraft, Vehicles and Equipment

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I. Activity Description:

The activity of draining, changing or adding maintenance fluids such as oil, hydraulic fluid or antifreeze in the course of routine maintenance of airplanes, vehicles and equipment. Includes the use of grease guns, pressurized gases (such as CFC's) and miscellaneous maintenance equipment such as air conditioning recharge equipment and wheel balancing dynamometers

II. Potential Environmental Risks

- A. The Clark County Department of Aviation (CCDOA) - Environmental, Health & Safety (EHS) office has identified the following environmental concerns associated with these activities:
1. Fluid spill
 2. Fire hazard
 3. Air pollution and odors
 4. Discharge of waste fluids into the sewer system or storm drain system (illicit discharge)
 5. Inappropriate or illegal disposal of waste materials
- B. Potential consequences from performing the activity incorrectly:
1. Property damage
 2. Personal injury
 3. Long-term damage to the environment
 4. Citation, Notices of Violation and related (financial & non-financial) penalties

III. Critical Operating Requirements

- A. Prohibited Activities
1. Do not perform maintenance work in areas that are not designated and/or authorized for this activity
 2. Spills of any kind shall not be washed into any storm sewer system, storm drain system, drainage waterway or onto any soil areas
- B. Required Activities

1. Drip pans and absorbent materials must be utilized in maintenance areas / authorized areas where spillage is likely to occur
2. When hosing down/cleaning work areas, wash water must be collected and disposed of properly
3. Secondary containment is required for all chemical containers that have been opened and the factory seals are no longer in place
4. Compliance with spill reporting requirements. Environmental Guideline EG 6-1, Spill Response

C. General Considerations

1. Each operator/tenant conducting maintenance activities is responsible for understanding the applicable regulations and managing their activities accordingly; this Environmental Guideline is meant as guidance only and does not supersede any regulations
2. Drain and properly dispose of all spent fluids such as greases, oils, antifreezes, brake fluids, solvents or cleaning solutions, blast media, paints, hydraulic fluids, batteries, transmission fluids and filters
3. Each operator/tenant is responsible for informing their personnel of DOA spill reporting requirements; refer to Environmental Guideline EG 6-1, Spill Response
4. Perform maintenance activities indoors or under covered areas whenever possible. When performing maintenance in an uncovered area, utilize drip pans to capture leaks or spill and block storm drain drop inlets whenever possible
5. Activities such as painting, stripping, battery charging and welding may require air permitting; contact the Clark County Department of Air Quality (CCDAQ) for guidance
6. All aircraft maintenance, repairs, servicing, cleaning, washing or other like actions, will be done only in areas approved by the Director of Aviation per Operating Directive 01-1
7. Use water-based cleaning agents or non-chlorinated solvents to clean equipment. Use biodegradable products where feasible.

D. Training Requirements

- i) Employees must receive Storm Water Pollution Prevention training on an annual basis
- ii) Employee training programs shall inform personnel at all levels of responsibility who are involved in aircraft maintenance activities that may impact storm water runoff. Storm Water Pollution Prevention Plan (SWPPP) training shall address topics such as spill response, good housekeeping and material management

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practices. Contractor or temporary personnel shall be informed of facility operations and design features in order to prevent discharges or spills from occurring

E. **Storage and Materials Management Requirements**

1. Maintain clean equipment by eliminating excessive amounts of external oil and grease buildup
2. Dispose of used rags properly
3. Maintain legible labels and markings on all containers and tanks, including tenant name
4. Store chemicals and wastes generated from maintenance activities in containers that are in good condition
5. Utilize secondary containment for all chemical and petroleum storage containers

IV. **Planning Requirements**

- A. As applicable, prepare implement and maintain an EPA-compliant SPCC Plan
- B. Maintain adequate supplies of spill response equipment and materials in accessible locations where spills are likely to occur.
- C. Plan space within maintenance areas; accordingly, notify CCDOA if significant maintenance activities will be performed

V. **Critical Tasks**

- A. Do not hose down work areas into any sewer system. As an alternative, use mops or dry sweeping compound. Dispose of wastewater from mops and dispose of dry sweeping compounds appropriately
- B. Ensure precautions are taken to prevent releases of fluids into the environment
- C. Store chemicals and waste in a manner that will minimize impact to storm water (e.g. indoors and/or away from drains)
- D. "Oil" (as defined in 40 CFR Part 112) stored in containers of the capacity of 55 gallons or more must be managed in accordance with an SPCC plan prepared by the container

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owner (e.g. secondary containment). Storage requirements must be included in the plan

VI. Emergency Response

- A. If a spill occurs, immediately stop the source of the spill, if possible. Refer to Environmental Guideline EG 6-1, Spill Response.
- B. Call the Airport Control Center (702) 261-5125 or the appropriate Customer Service Desk for the area (see phone numbers in Section IX below), immediately, for all spills
- C. Use absorbent materials to manage spills. Contain used materials and dispose offsite at a permitted disposal facility
- D. Prevent contamination from entering any sewer, storm drain, drainage waterway or soil areas using whatever means available (i.e., barriers, blocking devices, etc.)
- E. Control spills to eliminate risk to human health and the environment and to minimize property damage
- F. Utilize drip pans and absorbent materials at maintenance areas where incidental spillage is possible
- G. Spills of any kind shall not be washed into any sewer, waterway or onto any soil area
- H. Containerize all collected wastes and evaluate for proper labeling, storage and disposal
- I. Complete the CCDOA Spill Reporting Form and return the completed form to the CCDOA EHS office within 24-hours of the release

VII. Inspection and Maintenance Requirements

- A. Routinely inspect pavement in maintenance areas for the presence of spills and leaks. Immediately clean up any spills.
- B. Routinely inspect spill response equipment to ensure adequate supplies are available

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- C. Routinely inspect sumps, pretreatment devices and other collection/treatment systems in the maintenance area. Clean and maintain as necessary per Environmental Guideline EG 2-3, Maintenance of Pretreatment Devices

VIII. Expected Records and Outputs

- A. Waste Management/Disposal Documentation
 - 1. Based on the disposal profile, manifests and related forms may be required. Manifests and profile forms can be obtained from the disposal facility for off-site disposal activities. Manifests **ARE REQUIRED** for hazardous, special and universal wastes
 - 2. Operator must maintain appropriate documentation for disposed wastes at the facility
 - 3. Operator must maintain waste management records at the facility for a minimum of three (3) years
 - 4. See Environmental Guideline EG 7-1, General Waste Management, for additional information on waste classification and disposal requirements
- B. Maintenance Log
 - 1. Operator/tenant should maintain maintenance records of maintenance documents and waste management activities at their facility
- C. Evidence of Training on Storm Water Pollution Prevention Plan, Spill Prevention Control and Countermeasure Plan, and Operator's SOPs
 - 1. Formal certifications are not necessary, but some form of proof of training (such as sign-in sheets and handouts) are expected and should be available and signed by the attendees and maintained on file by the operator
 - 2. A copy of the SPCC Plan must be submitted to the CCDOA, EHS office
- D. Spill and Release for any Spills
 - 1. Spill/release is immediately called in to the Airport Control Center (702-261-5125), or appropriate Customer Service Desk
 - 2. Responsible party for the spill completes and submits a Spill Report Form to CCDOA EHS office. Spill Report Forms are available from CCDOA Airport Operations Coordinators or the CCDOA EHS office
 - 3. If any spill is 25 gallons or more, the tenant is responsible for contacting the Nevada Division of Environmental Protection (NDEP) at 1-888-331-6337 within the next business day following the spill. The NDEP Spill Report Number should be noted on the CCDOA Spill Report Form

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IX. References

A. Phone Numbers

1. CCDOA (Airport) Control Center (spill and release reporting).....(702) 261-5125
2. Henderson Executive Airport Customer Service Desk.....(702) 261-4800
3. North Las Vegas Airport Customer Service Desk.....(702) 261-3806
4. CCDOA Environmental, Health & Safety (EHS).....(702) 261-5692
5. NDEP Spill Reporting Hotline(for spills 25 gallons or greater)..... 1(888) 331-6337

B. Guidance Materials (list is not limited to the following)

1. CCDOA Tenant Bulletins
2. DOT Labeling and Placarding Guidance
3. Product Safety Data Sheets (SDS)
4. CCDOA Storm Water Pollution Prevention Plan
5. NDEP Storm Water Discharge Permit (NPDES)
6. Ramp Drainage Design and Storm Water Plans (as-builts)

C. Training Materials (list is not limited to the following)

1. Operational procedures for on-the-job training
2. Operator's Standard Operating Procedures (SOPs) for fueling activities

D. Related Environmental Documents (list is not limited to the following)

1. Environmental Guideline EG 1-1, Fueling Aircraft_Vehicles and Auxiliary Equipment
2. Environmental Guideline EG 1-2, Cleaning Washing - Aircraft _Vehicles and Equipment
3. Environmental Guideline EG 1-5 Maintenance of Aircraft, Vehicles and Equipment
4. Environmental Guideline EG 1-7 Storage of Vehicles and Equipment Containing Chemicals
5. Environmental Guideline, EG 2-1 Painting and Paint Removal
6. Environmental Guideline EG 2-3 Maintenance of Pretreatment Devices
7. Environmental Guideline EG 3-2 Heating, Ventilation, and Air Conditioning (HVAC) Operations
8. Environmental Guideline EG 3-4 Metal Finishing, Coating, Machining, and Cooling
9. Environmental Guideline EG 3-5 Parts Washing
10. Environmental Guideline EG 4-3 Procurement

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11. Environmental Guideline EG 4-4 Tenant Operating Guidance
 12. Environmental Guideline EG 4-5 Tenant Relocation or Closeout
 13. Environmental Guideline EG 5-2 Management of Petroleum Products (SPCC Plan)
 14. Environmental Guideline EG 5-3 Storage, Handling and Management of Hazardous Materials
 15. Environmental Guideline EG 6-1 Spill Response
 16. Environmental Guideline EG 6-2 Abandoned Material Response
 17. Environmental Guideline EG 7-1 General Waste Management
 18. Environmental Guideline EG 7-2 Management of Recyclable and Reusable Materials
 19. Environmental Guideline EG 7-3 Management of Hazardous Wastes
 20. Environmental Guideline EG 7-4 Management of Universal Wastes
 21. Environmental Guideline EG 7-5 Management of Special Wastes
 22. Environmental Guideline EG 7-6 Management of Materials
- E. Applicable Regulations (list is not limited to the following)
1. NAC 444/NRS 444 Sanitation
 2. NAC 445A Water Controls
 3. NAC 459/NRS 459 Hazardous Materials
 4. NAC 486A/NRS 486A Fleets: Use of Alternative Fuels
 5. 49 CFR Transportation
 6. NAC 444A.005-444A.470/NRS 444A.010-444A.110 Recycling
 7. NAC 445B Air Controls
 8. NAC 486A/NRS 486A Fleets: Use of Alternative Fuels
 9. NAC 590 Motor Vehicle Fuel, Petroleum Products and Antifreeze
 10. 40 CFR 50-97 Clean Air Act
 11. 14 CFR Aeronautics and Space
 12. 29 CFR 1910 Occupational Safety and Health Standards
 13. Uniform Fire Code/NFPA
- F. Other Documents (list is not limited to the following)
1. Permit Applications
 2. Permits & Licenses
 3. SPCC Plan
 4. Land Disposal Restrictions (LDRs) for waste materials
 5. Manifests
 6. CCDOA Spill Reports
 7. NFPA Requirements

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8. The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

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