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**Maintenance**

**HYDRAZINE POLICIES AND PROCEDURES**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFD 21-1, *Managing Aerospace Equipment Maintenance*. It is applicable to all organizations tasked with responding to, or with responsibilities relating to, hydrazine incidents. A hydrazine incident is defined as any incident involving hydrazine where the potential for exposure is present, including aircraft Emergency Power Unit (EPU) activation.

**SUMMARY OF REVISIONS**

Aligns publication with AFD 21-1. A bar (|) indicates revision from the previous edition.

**1. General.** Hydrazine incidents can be categorized as EPU activation in-flight, EPU activation on the ground, hydrazine spills or leakage, or crash of hydrazine equipped aircraft.

1.1. For the purposes of hydrazine response, two distinct zones shall be defined:

1.1.1. Hot Zone. A 50-foot perimeter around the aircraft or facility. Only Hydrazine Response Team (HRT) members will enter this area until the area is determined free of hydrazine leakage. The only exception to this rule will be for properly equipped fire/rescue personnel if it becomes necessary to extract the pilot/ground run operator. The security police will establish entry control points (ECP) to route nonparticipants away from the Hot Zone.

1.1.2. Cordon Area. A perimeter outward from the Hot Zone, established only in the event of a hydrazine leak. The on-scene commander will establish the size of this cordon area based on location, wind, and safety consideration. Generally, the area should be as small as possible and still provide adequate maneuverability for all response vehicles. The security police will establish an ECP and permit only the following agencies access: Fire Department, Crash Recovery, Bioenvironmental, Ambulance, Maintenance Squadron Supervision, EOR/crew chief involved in assisting the HRT, and any other agency the on-scene commander deems necessary.

## 2. Responsibilities:

### 2.1. Maintenance Squadron (MXS):

- 2.1.1. The Fuel Shop (LGMAF) will be the office of primary responsibility for the HRT.
- 2.1.2. Develop comprehensive checklists for responding to hydrazine incidents. These checklists will include procedures for extreme cold weather conditions.
- 2.1.3. Establish 24-hour procedures for manning and equipping a HRT, i.e., recall procedure.
- 2.1.4. Provide hydrazine familiarization training annually for all maintenance personnel. This training will be requested through the Logistics Support Squadron's Maintenance Training Flight (LSS/LGLT).

**WARNING:** Only HRT members shall attempt to contain or neutralize a hydrazine leak and/or spill, since specialized training and equipment is required.

### 2.2. Wing Operations Center (WOC) will develop operating instructions and/or checklists for notifying all required organizations in the event of a hydrazine incident, leak, or spill.

### 2.3. Security Police Squadron (SPS):

- 2.3.1. Will develop checklists for establishing flightline ECPs, routing all nonessential personnel away from hydrazine incidents.
- 2.3.2. Provide information to assist local law enforcement agencies to secure crash scenes and minimize the danger of hydrazine contamination and ensure public safety.
- 2.3.3. Will provide an individual to function as liaison with the Fire Chief, normally the Security Flight Sergeant.
- 2.3.4. Will establish the appropriate cordon area in accordance with disaster response procedures when directed by the on-scene commander.

### 2.4. Civil Engineer Squadron (CES):

- 2.4.1. The Base Fire Department will provide local Fire and Rescue Departments with information and training for the special handling and safety requirements needed to respond to crashed or damaged F-16 aircraft. They will also act as on-scene commander for all hydrazine incidents.
- 2.4.2. Environmental Management (CEV) will provide guidance for the disposal of neutralized hydrazine IAW applicable laws and regulations.

### 2.5. Medical Group (MDG):

- 2.5.1. Bioenvironmental Engineering Services (BES) will conduct industrial hygiene surveys of EPU maintenance and servicing areas and approve proper handling of hydrazine materials. They will also approve all HRT personal protective equipment. They will respond to all HRT incidents and clear all areas or structures for reoccupancy after hydrazine contamination. BES will clear areas and structures only after verifying air sampling measurements collected and provided by the HRT.
- 2.5.2. Flight surgeons from Aerospace Medical Services will develop operating instructions for responding to hydrazine medical emergencies to include treatment procedures for sub-freezing weather.

2.5.3. Wing Safety (SE): Respond as required.

### 3. Hydrazine Incident Response:

#### 3.1. EPU Activation in-flight or while taxiing:

3.1.1. Pilot will accomplish Dash 1 checklist procedures for activated EPU/hydrazine leak and:

3.1.1.1. Contact Ground Control and declare an IFE/ground emergency.

3.1.1.2. Turn off the EPU as soon as conditions permit.

3.1.1.3. If a hydrazine leak is noted, stop aircraft movement to avoid spreading contamination. Otherwise, taxi aircraft to the Hydrazine Response Area as directed by the Supervisor of Flying (SOF).

3.1.2. Ground Control will activate the secondary crash net.

3.1.3. WOC will initiate emergency notification procedures.

3.1.4. The EOR/ground crew marshaller will instruct the pilot to park the aircraft headed directly into the wind or with left wing into wind. The driving factor will be to ensure forward firing ordnance is not pointed toward inhabited areas.

3.1.5. HRT members will determine status of H-70, and take appropriate actions according to the hydrazine spill/clean-up checklist (fuel shop).

3.1.6. If hydrazine is present, the HRT member will signal the aircraft to be shut down, and a firefighter will assist the pilot from the cockpit. The HRT team will begin clean-up procedures IAW applicable guidance. BES will ensure the hydrazine is properly neutralized and clear the area for reentry.

#### 3.2. EPU Activation during ground run or maintenance (including activation prior to taxi):

3.2.1. The ground run operator/pilot will notify Ground Control.

3.2.2. Ground Control will activate the secondary crash net.

3.2.3. WOC will initiate ground emergency notification procedures.

3.2.4. The ground run operator/pilot will accomplish technical order procedures for activated EPU/hydrazine leak.

3.2.5. All other personnel will evacuate out of the Hot Zone to upwind side.

3.2.6. The HRT will respond immediately, determine status of H-70 and take appropriate action according to the hydrazine spill/clean-up checklist (fuel shop).

3.2.7. If a hydrazine incident occurs inside a facility, the structure will remain evacuated until cleared for reentry by BES personnel.

3.3. Aircraft Crash. HRT/BES will respond as required under the direction of the on-scene commander.

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