



U.S. Department
of Transportation
**Federal Aviation
Administration**

Memorandum

Subject: ACTION: Program Guidance Letter 91-8

Date: 23 AUG 1991

From: Manager, Grants-in-Aid Division, APP-500

Reply to
Attn. of:

To: PGL Distribution List

91-8.1. Eligibility of Power Sweepers for Control of Debris on Airports (Jim Borsari, 267-8822).

Runway sweepers have previously been determined under section 503(a)(2)(B)(iii) of the Airport and Airway Improvement Act (AAIA) to be eligible as snow removal equipment at airports. In conjunction with a request to review their eligibility for the additional purpose of debris control at airports, we requested AAS-1 to evaluate the contribution that the use of such sweepers would make to airport safety. AAS-1 has determined that power sweepers used for control of debris may be considered as equipment "contributing significantly to the safety or security of persons and property" at an airport as described in section 503(a)(2)(B)(ii) of the AAIA. Accordingly, we have determined that power sweeper equipment for debris control at airports is eligible under the AIP, subject to the limitations set forth in the AAS-1 memorandum dated June 25, 1991 (attachment 1). For discretionary funding, the priority would be the same as snow removal equipment.

91-8.2. Eligibility of Structural Firefighting Equipment (Jim Borsari, 267-8822).

In conjunction with a recent request to review the eligibility of structural fire fighting equipment, we requested AAS-1 to evaluate the contribution that such equipment would have on airport safety. AAS-1 has determined that such equipment may be considered as "fire fighting and rescue equipment at any airport which serves scheduled passenger operations of air carrier aircraft designed for more than 20 passenger seats" under section 503(a)(2)(B)(vi) of the Airport and Airway Improvement Act (AAIA). Accordingly, we have determined that structural fire fighting equipment is eligible under the AIP, subject to the standards and requirements provided by AAS-1 in its memorandum of July 30, 1991 (attachment 2). For purposes of discretionary funding, and in order to maintain an agency

policy that ARFF operations are the primary purpose of fire fighting and rescue capability, the development category should be "upgrade." The attached special condition (attachment 3) should be inserted in grants requiring sponsors to comply with the requirements of the AAS-1 memorandum.



Lowell H. Johnson

Attachments

Cancelled



U.S. Department
of Transportation
**Federal Aviation
Administration**

Memorandum

Subject: **ACTION:** Procurement of Power Sweepers for
Control of Debris on Airports

Date: JUN 25 1991

From: Director, Office of Airport Safety
and Standards, AAS-1

Reply to
Attn. of:

To: Director, Office of Airport Planning
and Programming, APP-1

A major safety issue and cost item affecting the aviation industry is damage caused to aircraft equipment by foreign objects (FOD) on runways, taxiways, and aprons. Studies show that in accidents or incidents where FOD was a factor, the size of the object causing the damage need not be large. In fact, small objects account for a high percentage of the damage cost.

Constant monitoring by airport and airline personnel combined with the timely use of pavement clearing equipment is necessary to minimize the hazards resulting from FOD. FAR Part 139.305(4) and .307(5) require that each certificate holder of an airport having paved or unpaved surface areas remove debris and other foreign matter promptly and as completely as practical. Debris is defined as the wide range of items from loose aggregate to man-made tools and other items. Removing it requires an approach similar to that used to control snow and ice on airport surfaces.

Accordingly, we have determined that safety is enhanced by the acquisition and availability of power sweeper equipment for FOD control. Judgement suggests that to meet this regulatory requirement the airport operator should be able to sweep the primary runway(s), connecting taxiways, and gate position areas within two hours. The time required is affected most by the number of sweepers and capability to work on the operational area without creating excessive delays. Considering the time it takes to maneuver and sweep, a large 20 foot sweeper traveling at 25 mph can clean approximately 250,000 square yards per hour.

Heretofore, program funds to procure power sweepers for the sole purpose of removing FOD were never an eligible item for AIP funding. However, based on our determination that safety is enhanced by the acquisition and availability of power sweeper equipment for FOD control, we recommend that at airports where funds have not been allocated for power sweepers to control snow and ice, a limited number of sweepers be made eligible. The following eligibility criteria is recommended:

A. Where the primary areas are less than 500,000 square yards, and where the airport's annual operational level is 40,000 or less, one power sweeper unit is eligible for funding.

B. At airports where the primary areas constitute 500,000 square yards or more, or where the annual operational level is in excess of 40,000 operations, two power sweeper units are eligible for funding.

Leonard E. Mudd
Leonard E. Mudd

Memorandum



U.S. Department
of Transportation
**Federal Aviation
Administration**

Subject: **ACTION:** Procurement of Structural Fire
Fighting Vehicles and Equipment for
Protection of Traveling Public at Airports

Date:

JUL 30 1991

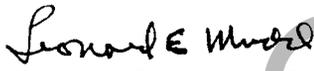
From: Director, Office of Airport Safety
and Standards, AAS-1

Reply to
Attn. of:

To: Director, Office of Airport Planning and Programming, APP-1

After review of our current practices, we believe a structural firefighting capability at airports would enhance safety in terminal buildings and in other buildings on an airport. Because of the added safety and in accordance with Airways and Airports Improvement Act of 1982, as amended, Section 503(a) (2)(B)(vi), we believe the policy should now be to allow structural firefighting capability, with limitations, eligible for Federal participation at any airport " ... which serves scheduled passenger operations of air carrier aircraft designed for more than 20 passenger seats."

Standards for determining the kinds of vehicles, number, and circumstances are attached.


Leonard E. Mudd

Attachment

STANDARDS FOR STRUCTURAL FIRE FIGHTING VEHICLES AND EQUIPMENT

The requesting airport presently has no structural vehicle located on the airport.

Structural response to an airport emergency (through mutual aid arrangements) from off-airport mutual aid units is expected to exceed 10 minutes.

Only one vehicle with a structural firefighting capability which meets one of the following characteristics is eligible for Federal participation:

- (1) A standard structural engine which:
 - (a) meets requirements of the National Fire Protection Association (NFPA) Standard 1901, Automotive Fire Apparatus, for a structural pumper;
 - (b) has a 750 gallon capacity water tank;
 - (c) has a minimum 500 gallon per minute (gpm) water pump, preferably a 1,000 gpm;
 - (d) has 2 hose bins with 250 feet each of 1.75 inch "Nitrile" attack hose; and,
 - (e) has 1,400 feet of 3 inch "Nitrile" supply hose.
- (2) A hybrid ARFF/Structural vehicle and equipment which:
 - (a) meets items (b) through (e) above;
 - (b) has an elevating/articulating water pipe which can serve as the "turret" for ARFF operations and reach upper and below grade floors of structures;
 - (c) has the performance characteristics appropriate for the specific "Class" of ARFF vehicle described in AC 150/5220-10A needed to serve as the primary ARFF vehicle for the airport.

NOTE: At small airports where staffing a vehicle with qualified personnel, providing maintenance, and garage space for 2 vehicles may be a problem, the ARFF/Structural combination vehicle and equipment may be the more cost effective way to provide the public with the desired level of safety for both the air and land sides of an airport.

- (3) Airport Sponsors receiving Federally funded structural firefighting vehicles and equipment shall agree:

- (a) to house and maintain the vehicles and equipment in a State of operational readiness;
- (b) to provide the necessary staffing to operate the vehicles and equipment;
- (c) to train that staff to the appropriate levels of NFPA 10001, Standard for Firefighter Professional Qualifications, and NFPA 10002, Fire Apparatus Driver/Operator Professional Qualifications or the appropriate level of their State Firefighter Certification requirements, where such requirements exist;
- (d) to have in place an emergency alarm system that distinguishes between structural emergencies and aircraft emergencies;
- (e) that the structural firefighting service offered is limited to on-airport emergencies;
- (f) that the ARFF services at the airport take precedence over all other emergency services the airport chooses to offer;
- (g) to amend all emergency plans accordingly;
- (h) to test structural vehicles and equipment in a manner similar to tests prescribed for ARFF services; and,
- (i) to have future on-airport buildings comply with building design and construction codes which normally require use of fire resistant materials and construction methods, appropriate exits to the outside, or to "safe areas" and where appropriate, built-in fire protection.

JULY 1991

SPECIAL CONDITION FOR STRUCTURAL FIREFIGHTING EQUIPMENT

The sponsor agrees that:

- a. it will house and maintain the structural firefighting equipment in a state of operational readiness;
- b. it will provide the necessary staffing to operate the vehicles and equipment;
- c. it will train personnel to the appropriate levels of NFPA-1001, Standard for Firefighter Professional Qualifications, and NFPA-1002, Fire Apparatus Driver/Operator Professional Qualifications or the appropriate level of their State Firefighter Certification requirements, where such requirements exist;
- d. it will have in place an emergency alarm system that distinguishes between structural emergencies and aircraft emergencies;
- e. it will limit the use of the structural firefighting vehicle to on-airport emergencies;
- f. it will amend emergency plans to reflect the acquisition of the vehicle and equipment if the existing plan does not reflect on-airport facilities for structural firefighting capability;
- g. Aircraft Rescue and Firefighting (ARFF) services take precedence over all other emergency services it chooses to offer as a result of this acquisition;
- h. it will test structural vehicles and equipment in a manner similar to tests prescribed for ARFF vehicles and equipment; and,
- i. it will ensure that all future on-airport building construction comply with appropriate building standards requiring use of fire resistant materials and construction methods, appropriate exits to the outside or safe areas, and where appropriate, built-in fire protection.