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APPENDIX E – EQUIPMENT & FACILITIES

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19 **E-1. OVERVIEW**

20 This appendix outlines the eligibility and justification requirements for equipment and facility projects
 21 that help airport sponsors address operational needs unique to the airport’s role in the National
 22 Airspace System (NAS).

23 **E-2. GENERAL ELIGIBILITY AND JUSTIFICATION**

24 See: 49 U.S.C. §§ [47102\(3\)\(A\)](#), [47102\(3\)\(B\)](#), [47102\(3\)\(D\)](#), [47102\(3\)\(Y\)](#), and [47109\(g\)](#)

25 See also: 14 CFR §§ [139.317](#), [139.319](#), and [40 CFR § 112.8](#)

26 For eligibility and justification requirements applicable to all projects funded with AIP, see [Chapter 2,](#)
 27 [Eligibility & Justification.](#)

28 **E-2.1. ELIGIBILITY CRITERIA**

29 **TABLE E-2.1. GENERAL ELIGIBILITY REQUIREMENTS FOR EQUIPMENT AND FACILITY PROJECTS**

Item	Description
Ownership & Operator	Equipment and facilities must be owned and operated by the airport sponsor. Aircraft rescue and firefighting (ARFF) equipment may also be operated per the terms outlined in an FAA-approved mutual aid agreement between the sponsor and a local government entity.
Equipment	Equipment must meet FAA-prescribed standards as applicable. Equipment must be available for airport use at all times. ARFF vehicles may be stored off-airport if the following requirements are met: <ul style="list-style-type: none"> ▪ The vehicle must be available for airport use when necessary to meet 14 CFR Part 139 requirements (must be on-site and available for all air carrier operations); ▪ The vehicle cannot be used for local community needs (except for FAA-approved mutual aid agreement uses); ▪ The sponsor must demonstrate to the ARP Field Office that there is no viable on-airport storage available, and off-airport storage provides a tangible benefit to the airport; ▪ The sponsor and the local governmental entity must execute a mutual aid agreement that: <ul style="list-style-type: none"> ○ Restricts the use of the vehicle for airport purposes only (except for FAA-approved mutual aid agreement uses); ○ Contains language that use of the vehicle for non-airport purposes could require repayment of the grant funding; and ○ Contains provisions for documenting the use of the vehicle. ▪ The sponsor must provide a copy of the agreement to the ARP Field Office, who will share it with the 14 CFR Part 139 certification inspector.

Item	Description
	<ul style="list-style-type: none"> ▪ Sponsors must obtain ARP Field Office approval for off-airport storage. The ARP Field Office must coordinate with ARP Headquarters prior to providing its approval.
Location	Projects must be on airport property and depicted on the latest FAA-approved ALP, if applicable.
Approval	Equipment and facility projects outside this appendix or exceeding standards require ARP Field Office approval before inclusion in the ACIP.

30 **E-2.2. JUSTIFICATION REQUIREMENTS**

31 The project must be needed to achieve a statutorily directed policy based on an actual or projected need
 32 (within the next five years). Projects must align with the airport’s category or role in the national system
 33 of airports, as well as with the airport’s Part 139 Class and Index and Snow and Ice Removal
 34 requirements.

35 Projects that exceed the airport’s current or projected Class, ARFF Index, or Snow and Ice Removal
 36 requirements necessitate ARP Field Office approval.

- 37 ▪ For ARFF vehicles, buildings, or equipment, the sponsor must document the circumstances that
 38 necessitate the need and the safety concerns it will address, and the ARP Field Office must
 39 concur that the safety concern requires mitigation.
- 40 ▪ For snow removal equipment (SRE) vehicles and buildings, the ARP Field Office must determine
 41 that the airport is large enough, busy enough, and has sufficiently significant snowfall to warrant
 42 an additional vehicle or space.

43 If the airport is not projected to achieve Part 139 certification within the next five years, the airport
 44 sponsor must document how an ARFF vehicle or equipment will address specific safety concerns at the
 45 airport and confirm it will have the necessary personnel equipped and properly trained to perform ARFF
 46 duties and maintain the vehicle at the time it is delivered, and the ARP Field Office must concur before
 47 programming the project grant.

48 In addition, through fiscal year 2028, ARFF and SRE facilities can be constructed or expanded to the size
 49 necessary to provide storage space for both the airport’s AIP-funded and non-AIP-funded eligible and
 50 justified ARFF and SRE equipment, provided the equipment is the type and quantity prescribed by the
 51 FAA and is owned by the sponsor and used exclusively to maintain safe airfield operations.

52 Justification for rehabilitation or reconstruction or replacement is based upon the applicable useful life
 53 standards detailed in [Table E-3.1](#).

54 **E-2.2.1. SCOPE & ALLOWABLE COSTS**

55 Projects must align with the actual (currently or within the next five years) operational needs of the
 56 airport and not exceed the scope or quantities identified. The project’s scope should contain only the
 57 elements that are required to obtain the full benefit of the project. ARFF vehicle funding is limited to the
 58 minimum number of vehicles and minimum size of vehicles required to satisfy 14 CFR Part 139
 59 requirements, unless approved for equipment above index by the ARP Field Office.

60 Excluded work and costs are not eligible (see [Table E-3.1](#) for details).

61 E-2.2.2. USEFUL LIFE
 62 Projects are eligible for initial acquisition, construction, or expansion. Reconstruction or replacement is
 63 eligible only after the useful life has expired and the equipment or infrastructure is no longer functional
 64 or maintainable.
 65 [Chapter 2](#) discusses minimum useful life requirements applicable to all AIP-funded projects. One
 66 component of the minimum useful life requirement for equipment or a facility being rehabilitated or
 67 reconstructed is that the equipment or facility must no longer be operational or maintainable. [Chapter 2,](#)
 68 [Section 2-3.2., Minimum Useful Life](#), provides details on what factors the ARP Field Office must evaluate
 69 if the equipment or facility has not achieved its minimum useful life.
 70 [Table E-3.1.](#) includes specific minimum useful life requirements applicable to equipment and facility
 71 projects.

72 **E-3. ELIGIBLE EQUIPMENT AND FACILITY PROJECTS**

73 For scope of work requirements applicable to all AIP-funded projects, see [Chapter 2](#). The ARP Field Office
 74 must coordinate ARFF-related projects with the 14 CFR Part 139 certification inspector for the airport.
 75 Relevant Advisory Circulars (ACs) include, but are not limited to, the current version of:
 76

- [AC 150/5220-10, Guide Specification for Aircraft Rescue and Firefighting \(ARFF\) Vehicles;](#)
- 77
 - [AC 150/5210-15, Aircraft Rescue and Firefighting Station Building Design;](#)
 - 78
 - [AC 150/5220-17, Aircraft Rescue and Firefighting \(ARFF\) Training Facilities;](#)
 - 79
 - [AC 150/5210-14, Aircraft Rescue Fire Fighting Equipment, Tools, and Personal Protective](#)
 - 80 [Equipment;](#)
 - 81
 - [AC 150/5220-18, Buildings for Storage and Maintenance of Airport Snow and Ice Control](#)
 - 82 [Equipment and Materials;](#)
 - 83
 - [AC 150/5220-20, Airport Snow and Ice Control Equipment;](#) and
 - 84
 - [AC 150/5200-30, Airport Field Condition Assessments and Winter Operations Safety.](#)
 85 See the [AC checklist](#) for a list of the latest version of ACs applicable to AIP-funded projects.

86 **TABLE E-3.1. ELIGIBILITY EQUIPMENT AND FACILITY PROJECTS**

Project Type	Justification and Useful Life	Additional Requirements and Considerations	Excluded Work
ARFF Vehicles <i>Acquire, Rehabilitate, & Replace</i> Unit of Measure: <i>Item Type & Quantity</i>	Needed to satisfy a current Part 139 requirement or a documented safety determination or finding. ARFF vehicles and water rescue equipment must be coordinated with the 14 CFR Part 139	A specialized fire truck designed specifically for airport emergencies; a helicopter for water rescue when supported by additional justification and ARP Field Office concurrence; or a boat for water rescue when significant bodies of water	Vehicles that exceed the airport’s current or projected Class and ARFF Index absent additional justification and ARP Field Office approval. Routine work is not eligible. Items such

Project Type	Justification and Useful Life	Additional Requirements and Considerations	Excluded Work
	<p>certification inspector for the airport.</p> <p>A variety of factors may impact a vehicle’s operational capabilities and functional use.</p> <p>Reconstruction after 10 years and the vehicle is no longer functional or maintainable, rehabilitation after 5 years to extend the vehicle’s useful life.</p> <p>Sponsors should coordinate with the ARP Field Office to assess whether rehabilitation or reconstruction is appropriate.</p>	<p>or marsh lands are situated adjacent to the airport and beneath the flight paths of air carriers.</p> <p>The ARFF vehicle must be commensurate with the airport’s current or projected (within the next five years) Class and ARFF Index. If the airport does not achieve Part 139 status in alignment with the acquired equipment within five years of acceptance, the sponsor could be asked to repay the grant.</p> <p>Exception for non-Part 139 certified airports with specific airport safety concerns (see Section E-2.2. for more details).</p> <p>Initial acquisition and reconstruction should include the auxiliary equipment or tools needed to ensure the vehicle is fully operational and serves its intended purpose, such as radios and communications equipment, forcible aircraft entry tools, emergency lighting mounted to the vehicle, test charges and refills of expendable items, input-based testing equipment, costs associated with mounting the necessary ARFF gear to the vehicle, and a simulator to perform training unique to the vehicle.</p> <p>If the vehicle has a skin penetrating nozzle, skins</p>	<p>as tires, belts, gaskets, plugs, replacement skins, etc. are considered routine work.</p>

Project Type	Justification and Useful Life	Additional Requirements and Considerations	Excluded Work
		<p>may be included with the initial acquisition, but not with reconstruction.</p> <p>The airport must either include a line item in the ARFF vehicle procurement to mount the necessary ARFF gear to the vehicle or mount the equipment using its own personnel.</p>	
<p>ARFF Buildings <i>Construct, Expand, Rehabilitate, & Reconstruct</i></p> <p>Unit of Measure: <i>Square Footage</i></p>	<p>Needed to protect ARFF equipment.</p> <p>ARFF buildings must be coordinated by the ARP Field Office with the 14 CFR Part 139 certification inspector for the airport.</p> <p>Reconstruction after 20 years (40 for concrete block structures) and the building is no longer functional or maintainable, rehabilitation after 10 years to extend its useful life.</p> <p>Total replacement of the ARFF building communication system is eligible every 10 years.</p> <p>Reconstruction may be eligible if necessary to relocate the building to satisfy response times required by Part 139.</p>	<p>A building to house eligible ARFF equipment (vehicles, supplies, and personnel). Space and interior finishes necessary to support the building's ARFF function as supported by ARP Field Office approval.</p> <p>The building may include an ARFF communication system, but the ARFF communication system can also be a stand-alone project. The ARFF communication system may include emergency crash phones, intercom systems, radio dispatch consoles, and alerting systems.</p> <p>A maintenance or service facility (also called a maintenance bay) for maintaining required safety and security equipment may be co-located in the ARFF building.</p> <p>An ARFF building communication system ensuring communication between airport fire stations, ARFF vehicles, and Air Traffic Control (ATC).</p>	<p>ARFF buildings that exceed the airport's current or projected Class and ARFF Index absent additional justification and ARP Field Office approval.</p> <p>Space exceeding that needed to support the number of employees required to meet Part 139 response times or local government staffing requirements.</p> <p>Routine work is not eligible.</p> <p>ARFF communication system duplicate or replacement parts are not eligible.</p>

Project Type	Justification and Useful Life	Additional Requirements and Considerations	Excluded Work
		<p>The service road from the building to the airfield, the access road to the facility, and / or parking for crew personal vehicles may also be included.</p>	
<p>ARFF Training Facilities <i>Construct & Reconstruct</i></p> <p>Unit of Measure: <i>Item Type (fixed or mobile) & Quantity</i></p>	<p>Needed to satisfy a current Part 139 requirement or a documented safety determination or finding.</p> <p>Reconstruction after 10 years and the facility is no longer functional or maintainable.</p> <p>Mobile training facilities are eligible for acquisition by an airport if the closest regional training facility is more than 100 miles away or by a state if the mobile training facility will benefit more than one airport in the state.</p>	<p>A training facility or mobile ARFF training facility used to support operational requirements under Part 139.</p> <p>Regional training facility project costs may include land, the burn area, maneuvering areas, a control center, an ARFF vehicle with capacity not to exceed 1,500 gallons, the vehicle bay(s), utilities, maintenance facilities, environmental protection, fencing, the access road, and a building for classrooms, showers, and lockers.</p> <p>An additional ARFF vehicle may be eligible if justified in the view of the 14 CFR Part 139 certification inspector based on the mix of area airport indices.</p> <p>Both mobile training facilities and regional training facilities may include the initial acquisition of the computer server, software, and dedicated hardware.</p>	<p>Rehabilitation and routine work are not eligible.</p> <p>An airport cannot have a fixed facility and a mobile facility for ARFF training. Selection of one makes the other ineligible.</p> <p>Regional training facilities that will duplicate the services provided by an existing, nearby regional training facility.</p>
<p>ARFF Safety Equipment <i>Acquire & Replace</i></p>	<p>Needed to satisfy a current Part 139 requirement or a documented safety</p>	<p>Project may include the purchase of Personal Protective Equipment (PPE) for crews serving eligible</p>	<p>Equipment exceeding the minimum number of personnel required to meet the</p>

Project Type	Justification and Useful Life	Additional Requirements and Considerations	Excluded Work
<p>Unit of Measure: <i>Item Type</i></p>	<p>determination or finding.</p> <p>The useful life for ARFF structural gear (firefighting suits) and for ARFF proximity gear is 10 years.</p> <p>Protective clothing may be replaced earlier if the 14 CFR Part 139 certification inspector verifies that the clothing is no longer usable or maintainable due to circumstances beyond the sponsor’s control.</p>	<p>ARFF vehicles that is necessary to ensure the ARFF vehicle’s intended utility and may include protective clothing or suits, self-contained breathing apparatus (SCBA), tools, ground vehicle training hardware and software for ARFF operations, and water rescue equipment.</p> <p>Equipment must align to the airport’s current or projected Class and ARFF Index. If the airport does not achieve Part 139 status in alignment with the acquired equipment within five years of acceptance, the sponsor could be asked to repay the grant.</p> <p>Exception for non-Part 139 certified airports with specific airport safety concerns (see Section E-2.2 for more details).</p> <p>Federally required interactive training systems (simulators) are eligible. Initial acquisition of the server, software, and dedicated hardware are eligible. New training modules to add new material are eligible.</p>	<p>operational requirements of Part 139.</p>
<p>Input-Based Testing Equipment <i>Acquire</i></p> <p>Unit of Measure: <i>Item Type (Aqueous Film Forming Foam)</i></p>	<p>Airport must own an ARFF vehicle required by Part 139 to have Aqueous Film Forming Foam (AFFF) or Fluorine-Free Foam (F3) and not currently own functional</p>	<p>Acquisition and installation of input-based testing equipment to ensure ARFF vehicles and their systems remain operationally capable of performing the functions required under Part 139. External input-</p>	<p>Spare parts, disposable items, measurement, and testing equipment.</p> <p>Fees to develop specifications,</p>

Project Type	Justification and Useful Life	Additional Requirements and Considerations	Excluded Work
	<p>equipment for input-based testing.</p>	<p>based testing equipment (carts) or vehicle modifications to install input-based testing equipment are eligible.</p> <p>Sponsors are limited to one set of external equipment per airport or vehicle modifications.</p> <p>The Federal share for the stand-alone acquisition or truck modification is 100% until December 20, 2027. This 100% Federal share is only applicable if the cart or modification was procured after December 2, 2022.</p> <p>New vehicles should be acquired with input-based testing functionality or have stand-alone equipment already available, which will ultimately make this project type obsolete.</p> <p>External equipment is not permanently affixed to an ARFF vehicle and can be used to conduct input-based testing for multiple vehicles.</p>	<p>consultant fees, and administrative costs.</p> <p>Rehabilitation and reconstruction are not eligible.</p>
<p>SRE Equipment <i>Acquire, Rehabilitate, & Replace</i></p> <p>Unit of Measure: <i>Item Type & Quantity</i></p>	<p>Part 139 airports: Sufficient equipment needed to clear Priority 1 paved areas within the outlined clearance times based on operation type as outlined in FAA AC 150/5200-30.</p> <p>Eligibility is limited to the minimum requirements</p>	<p>Snow plows, loaders, high-speed rotary plows, runway brooms, material spreaders, motor grader (if eligible) and snow melter (if eligible).</p> <p>Motor graders may be approved in limited circumstances and require coordination / approval of the ARP Field Office. The sponsor must demonstrate that the motor grader will</p>	<p>Routine work is not eligible; items such as tires, belts, gaskets, and plugs are considered routine work.</p> <p>Specialized equipment for removal of snow or ice on an engineered material arresting system (EMAS).</p>

Project Type	Justification and Useful Life	Additional Requirements and Considerations	Excluded Work
	<p>recommended by the applicable ACs, unless the ARP Field Office approves the sponsor’s assertion that the volume of traffic requires additional equipment. The sponsor must submit detailed supporting documentation to the ARP Field Office.</p> <p>Non-Part 139 airports: One snow removal carrier vehicle is eligible unless the ARP Field Office concurs that the airport is large enough, busy enough, and / or has significant snowfall to warrant an additional vehicle.</p> <p>Applicable to Part 139 and Non-Part 139 airports:</p> <p>Sponsors must provide pavement area calculations and a current FAA Form 5100-141, Inventory of Snow Removal Equipment, as part of justification for new SRE.</p> <p>Reconstruction after 10 years and the vehicle is no longer functional or maintainable, rehabilitation after 5</p>	<p>not damage airfield pavements.</p> <p>Fixed and portable snow melters may be approved in very limited circumstances and require coordination and approval of the ARP Field Office.</p> <p>Alaska only: Bulldozers may be approved in limited circumstances and require coordination / approval of the ARP Field Office.</p>	

Project Type	Justification and Useful Life	Additional Requirements and Considerations	Excluded Work
	<p>years to extend the vehicle’s useful life.</p> <p>A variety of factors may impact a vehicle’s operational capabilities and functional use. Sponsors should coordinate with the ARP Field Office to assess whether rehabilitation or reconstruction is appropriate.</p>		
<p>SRE Buildings <i>Construct, Expand, Reconstruct, Relocate, & Rehabilitate</i> Unit of Measure: <i>Square Footage</i></p>	<p>Needed to protect AIP-funded SRE and materials.</p> <p>At the time the building is programmed, the eligible SRE must be owned, on order, or budgeted by the airport within the next 5 years.</p> <p>Reconstruction after 20 years (40 for concrete block structures) and the building is no longer functional or maintainable, rehabilitation after 10 years to extend its useful life.</p>	<p>A storage building that includes space for SRE; may include space for sand and chemicals if no building exists for sand and chemicals.</p> <p>A new sand and chemical storage building if space does not exist within an existing SRE building.</p> <p>A maintenance or service facility (also called a maintenance bay) for maintaining required safety and security equipment may be co-located in the SRE building.</p> <p>Limited employee vehicle parking necessary to accommodate essential snow removal personnel on duty; and an airside service road for access to the facility.</p> <p>Alaska only: May include short-term or temporary employee sleeping quarters and space necessary to</p>	<p>Personnel quarters, snow control center or snow desk space for training or other functions.</p> <p>Storage of equipment and materials not needed for snow removal activities.</p> <p>The storage of deicing materials for aircraft.</p> <p>Routine work is not eligible.</p>

Project Type	Justification and Useful Life	Additional Requirements and Considerations	Excluded Work
<p>Alaska only: SRE Fuel Infrastructure <i>Acquire & Install</i> Unit of Measure: <i>Item Type</i></p>	<p>The airport must be in Alaska.</p>	<p>coordinate snow removal operations if approved by the ARP Field Office.</p> <p>Acquisition and installation of necessary fuel lines, storage tanks, and equipment to fuel SRE vehicles used at airports in Alaska.</p> <p>Facility must meet the requirements of 40 CFR § 112.8 (excluding production facilities).</p> <p>Alaska airports are not required to show that the project will increase the revenue producing ability of the airport or document that airside needs have been met to pursue funding.</p>	<p>Tanks that exceed the needs of SRE vehicles at the airport.</p> <p>Reconstruction, rehabilitation, and routine work are not eligible.</p>
<p>Emergency Operations Center (EOC) <i>Construct, Expand, Reconstruct, & Rehabilitate</i> Unit of Work: <i>Square Footage</i></p>	<p>Reconstruction after 10 years and the center is no longer functional or maintainable, rehabilitation after 5 years to extend the center’s useful life.</p>	<p>A specialized area where airport personnel monitor, coordinate, and respond to critical situations at the airport. This equipment is used for operational, and not security, purposes.</p>	<p>Equipment or furniture that is not mounted.</p> <p>Mobile command vehicles.</p>

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88 **E-4. RELATED PROJECTS**

89 The projects in this section are not eligible for equipment and facility purposes; however, references to
90 related projects that may be eligible are provided as applicable.

91 **TABLE E-4.1. RELATED PROJECTS**

Project Type	When Scope of Work Includes	See Appendix
Access and Service Roads	Non-public use service roads for airport operations vehicles to access the airfield	C, Airfield Infrastructure
Airfield Equipment	Driver’s Enhanced Vision System (DEVS), Forward Looking Infrared Systems (FLIRS), Vehicle Movement Area Transmitters (VMATs), Runway Incursion Warning System (RIWS)	C, Airfield Infrastructure
	Deicing equipment	D, Environmental & Energy
Fueling Equipment	Fueling equipment and infrastructure	L, Revenue Producing
	Fueling equipment and infrastructure for unleaded avgas fuel farms for piston-driven aircraft	D, Environmental & Energy
Security Equipment	Security equipment	M, Security

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