

ORDER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

5300.1F

6/30/00

SUBJ: MODIFICATIONS TO AGENCY AIRPORT DESIGN, CONSTRUCTION, AND EQUIPMENT STANDARDS

1. PURPOSE. This Order establishes approval level for modifications to standards applicable to airport design, construction and equipment procurement projects.

2. DISTRIBUTION. This Order is distributed to division level in the Offices of Airport Planning and Programming, Airport Safety and Standards, Air Traffic, Airway Facilities, and Flight Standards Services; to the division level in the regional Airports, Air Traffic, Airway Facilities, and Flight Standards Divisions; and to all Airport District and Field Offices.

3. CANCELLATION. Order 5300.1E, *Approval Level for Modification of Agency Airport Design and Construction Standards*, dated 10/22/91, is canceled.

4. DEFINITIONS.

a. "Modification to standards" means any change to FAA standards, other than dimensional standards for runway safety areas, applicable to an airport design, construction, or equipment procurement project that results in lower costs, greater efficiency, or is necessary to accommodate an unusual local condition on a specific project, when adopted on a case-by-case basis.

b. Regional or State standards are alternative standards that may be used within the subject Region or State for airport development projects without further documentation.

c. "Materials standards" are those standards that apply to the procurement or approval of materials.

d. "Construction standards as they relate to materials" are those standards that apply to installation methods and tolerances.

5. EXEMPTIONS. Exemptions from 14 CFR Part 139, *Certification and Operations: Land Airports Serving Certain Air Carriers* (Part 139) are not covered by this Order.

6. BACKGROUND. Various laws and regulations require conformance with current FAA standards, as detailed below. Modifications to national standards may be considered for a specific project where unusual conditions preclude compliance with national airport design, construction, materials, or equipment standards.

a. Airport and Airway Improvement Act. The Airport and Airway Improvement Act (The Act), recodified at 49 USC 47105(b)(3) states in part, "An application for a project grant under this subchapter may propose airport development only if the development complies with standards the Secretary prescribes or approves, including standards for site location, airport layout, site preparation, paving, lighting, and safety of approaches."

b. Airport Improvement Program. To carry out the intent of the Act, one of the standard grant assurances requires airport sponsors to "...carry out the project in accordance with policies, standards, and specifications approved by the Secretary, including but not limited to, the advisory circulars listed in the Current FAA Advisory Circulars for AIP Projects, ... and in accordance with applicable state policies, standards, and specifications approved by the Secretary." In addition, Order 5100.38, *AIP Handbook*, paragraph 35, provides that "... a sponsor is required to comply with all appropriate technical guidelines incorporated into identified AC's; and these standards become mandatory for the project being funded. Standards in effect on the date of allocation of AIP funds to a project apply to that project. Standards which become effective after the date of allocation may be applied to the project by mutual agreement between the FAA and the sponsor."

c. Passenger Facility Charges. 14 CFR Part 158, *Passenger Facility Charges*, Appendix A requires, "The public agency hereby assures and certifies, with respect to this project that: ...It will carry out the project in accordance with FAA airport design, construction, and equipment standards and specifications contained in advisory circulars current on the date of project approval."

d. Runway Safety Areas. Part 139, paragraph 139.309, requires runway safety areas to conform to current standards if construction, reconstruction, or significant expansion began on or after January 1, 1988 *to the extent practicable*. Regional Airports Division Managers are required to make a Runway Safety Area determination in accordance with FAA Order 5200.8, *Runway Safety Area Program*, for each runway at federally obligated airports and airports certificated under Part 139 within their geographic purview. Modifications to Standards are *not* issued for nonstandard runway safety areas.

7. POLICY. A standard policy for modifications to standards ensures uniformity in the application of standards.

a. Modifications to materials standards shall be made only when locally available materials cannot meet the requirements of that standard, and are subject to the limitations of paragraph 10.

b. Modifications to construction methods standards shall be made only when they will result in cost savings and/or greater efficiency, and are subject to the limitations of paragraph 10.

c. Modifications to equipment standards or airport design standards shall be made only when justified by unusual local conditions.

d. Modifications to the general provisions of AC 150/5370-10, *Standards for Specifying Construction of Airports*, should be made only to make them consistent with local laws and regulations.

8. REQUESTS FOR MODIFICATIONS TO STANDARDS. An airport sponsor's request for a modification to standards shall be submitted to the appropriate FAA Airports Regional or District Office, and shall contain the following:

a. A list of standards affected and the basis for the request as allowed in paragraph 7 above.

b. A description of the proposed modification.

c. A discussion of viable alternatives for accommodating the unusual conditions, and

d. Assurance that:

(1) modifications to materials, construction or equipment standards will provide a product that will meet FAA standards for acceptance and that the finished product

will perform for its intended design life, based on historical data, or

(2) modifications to airport design standards will provide an acceptable level of safety, and

(3) modification is necessary to conform to local laws and regulations (if applicable).

9. PROCESSING OF REQUESTS.

a. Each FAA Regional or Airports District Office will maintain a file of approved modifications to standards associated with each airport. The file will contain a log that identifies the standard affected and the action date. The file will also contain each request received, the documented evaluation of the request, and a copy of the letter of approval. A table listing nonstandard conditions, including modifications to layout or dimensional standards, should be incorporated into the ALP. This table should reflect the dates of approval letters and identify associated airspace review case numbers.

b. Requests will be evaluated by the receiving office to determine if a modification to standards is appropriate, and if so, the proper level of approval as determined under sections 10-13 of this order.

(1) Those requiring headquarters approval will be forwarded to the Director of Airport Safety and Standards, AAS-1, and shall include the following:

(a) A reference to the project and location.

(b) The rationale for using a new method or material, documentation to show successful use on construction projects, and a copy of the proposed specification.

(c) A recommendation by the Regional Office for approval or disapproval.

(d) Approval or disapproval of Regional requests will be forwarded by AAS-1 within 30 days of receipt.

(2) Information copies of modifications to standards approved at the regional level shall be provided to AAS-1.

(3) Notify AAS-1, in writing, when methods or materials contained in Engineering Briefs are used on a project.

c. Modifications which may impact existing or future aircraft operations, instrument flight procedures, navigational aids, or facilities associated with instrument

procedures will be coordinated as necessary with the regional National Airspace System Implementation Center, and Flight Standards, Air Traffic, and Airways Facilities Divisions.

d. Each Headquarters Division will update a central database of modifications to standards. This database will be used to track trends that indicate needs for changes to national standards.

e. Approval Letters. Approval letters should contain the following for each modification:

- (1) reference to the standard modified,
- (2) a description of the approved modification,
- (3) the justification for the modification,
- (4) the effective period of the modification, if appropriate, and
- (5) a statement that the modification is subject to review if conditions originally justifying the modification change.

10. REGIONAL APPROVAL. Modifications listed below may be approved by Regional Division Managers. This authority may be redelegated.

a. Modifications to airport design and equipment standards, and construction standards as they relate to materials (except as provided in paragraph 11 below) may be approved on a case-by-case basis when the modification will provide an acceptable level of safety and provide an economically feasible alternative.

b. Modifications to construction methods and materials specifications previously approved by AAS-1 for use within a region may be approved on a case-by-case basis without further review by AAS-1. Those determined to be appropriate for national use will be issued by AAS-1 as an Engineering Brief and may also be approved on a case-by-case basis without further review by AAS-1.

c. Modifications to the general provisions of AC 150/5370-10 may be approved if necessary to make them consistent with local laws and regulations.

11. HEADQUARTERS APPROVAL. The Director of Airport Safety and Standards, AAS-1 (or designee), specifically reserves approval authority for modifications to standards in the following areas:

a. Standards for siting navigational or lighting aids that are common to the facilities and equipment program.

b. Standards for marking, lighting and signs on airport runways, taxiways and aprons.

c. Equipment specifications listed in AC 150/5345-53, *Airport Lighting Equipment Certification Program*.

d. Construction methods and materials specifications for which AAS-1 has not previously approved a modification for use within the subject Region.

e. Criteria used to control the quality or determine the acceptability of materials and finished products.

(1) Quality control criteria include all the tests performed to determine if adjustments to operations are necessary to stay within specification limits. They include the following: aggregate gradation within tolerance for subbase, base, and surface courses; asphalt content for bituminous mixes; and slump and air content for concrete mixes.

(2) Acceptance testing includes all criteria and the tests performed to determine acceptability of the material or finished product and includes the following: density and thickness for subgrade, subbase, base courses, and bituminous pavement; flexural strength and thickness for concrete pavement; surface tolerances for subbase, base, and surface courses and the use of a nuclear gauge for density acceptance in lieu of cores or borings.

f. Additions to requirements for Airport Layout Plans contained in Appendix 7 of AC 150/5300-13, *Airport Design*.

g. Standards for transfer of electronic data in Appendix 15 of AC 150/5300-13.

12. REGIONAL STANDARDS.

a. Alternative standards may be adopted by an FAA Regional Office as "regional standards." The authority to adopt such standards is the same as the authority to approve modifications to the affected standards on a case-by-case basis in paragraph 10 above.

b. Information copies of regional standards approved at the regional level will be provided to AAS-1, with a recommendation for adoption as national standards, if appropriate.

c. Requests for headquarters approval of regional standards must include adequate justification.

d. Regional standards must be updated when changes to national standards are issued.

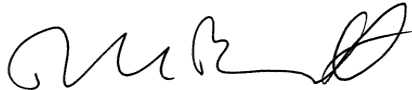
13. STATE STANDARDS.

a. State standards may be developed for airports that are not primary airports, in accordance with 49 USC 47105(c), and AC 150/5100-13A, *Development of State Standards for Nonprimary Airports*. State highway specifications may be permitted for airfield pavement construction at nonprimary airports in accordance with 49 USC 47114(d)(5) as amended by P.L. 106-181(April 2000). For all other airports, the FAA

standards shall be used, except as modified in accordance with this Order.

b. The Director of Airport Safety and Standards, AAS-1 (or designee), specifically reserves approval authority for State standards.

c. Standards developed under this section must be updated periodically and reflect FAA standards where applicable.



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