



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

Advisory Circular

Subject: Aircraft Fuel Storage, Handling,
Training, and Dispensing on Airports

Date: Draft

AC No: 150/5230-4C

Initiated By: AAS-300

Change:

1 1 **Purpose.**

2 This advisory circular (AC) contains specifications and guidance for the storage,
3 handling, and dispensing of aviation fuel on airports. Additionally, this AC provides
4 standards and guidance for the training of personnel who conduct these activities.

5 2 **Cancellation.**

6 This AC cancels AC 150/5230-4B, *Aircraft Fuel Storage, Handling, and Dispensing on*
7 *Airports*, dated September 28, 2012.

8 3 **Applicability.**

9 The Federal Aviation Administration (FAA) recommends the standards and guidelines
10 in this AC to develop specifications and guidance for the storage, handling, and
11 dispensing of aviation fuel on airports. This AC does not constitute a regulation and is
12 not mandatory. However, the following applies:

- 13 1. The standards and guidelines contained in this AC are practices the FAA
14 recommends establishing an acceptable level of safety, performance and operation
15 for aircraft fuel storage, handling, training, and dispensing on airports.
- 16 2. This AC provides one, but not the only, acceptable means of meeting the
17 requirements of 14 CFR, Part 139, *Certification of Airports*.
- 18 3. Use of these standards and guidelines is mandatory for projects funded under
19 Federal grant assistance programs, including the Airport Improvement Program
20 (AIP). See Grant Assurance #34.
- 21 4. This AC is mandatory, as required by regulation, for projects funded by the
22 Passenger Facility Charge (PFC) program. See PFC Assurance #9.

23 This AC provides an acceptable means of complying with Title 14 Code of Federal
24 Regulations (CFR) Part 139 for all Part 139 airport operators. Although
25 non-certificated airports are not required to develop fuel standards, the FAA
26 recommends these airports use the guidance contained in this AC to develop such
27 standards for the continued enhancement of aviation safety.

28 4 **Addendum of Authorized Fuel Safety Training Courses.**

29 The FAA regards instructional programs that provide line service and supervisory
30 training, as required by 14 CFR §139.321 (e) (1) and (2), as critical to safety on airports.

31 To ensure this training is complete and effective:

- 32 1. Third-party training providers who provide line service training and/or supervisory
33 training of line service personnel **will** submit their training syllabus to the
34 Administrator for review and a determination of its acceptability.
- 35 2. Airport and tenant fueling agents who provide line service training for other than
36 their own airport employees and/or supervisory training of line service personnel
37 submit their training syllabus to the Administrator for review and a determination of
38 its acceptability.
- 39 3. Training syllabus (syllabi) should be submitted to:

40 Federal Aviation Administration
41 Manager, Airport Safety and Operations
42 Attn: Fuel Safety Training
43 800 Independence Ave., SW
44 AAS-300, Room 618
45 Washington DC 20591

46 The FAA publishes a list of the companies offering courses of instruction in line service
47 training as well as supervisory training that are acceptable to the Administrator.
48 Because changes may occur more frequently than the schedule for updating the AC, the
49 FAA will review this list on a quarterly basis and post an updated version online as an
50 Addendum to this AC.

51 The airport operator is responsible for consulting the current listing of acceptable
52 training courses. Likewise, the companies listed in this Addendum are responsible for
53 notifying the FAA of any changes to their training syllabus and the availability of the
54 course(s) offered or to contact information.

55 5 **Principal Changes.**

56 The AC incorporates the following principal changes:

- 57 1. **New definitions and acronyms are added.**
- 58 2. **Added new training requirement for Diesel Exhaust Fluid (DEF) to paragraph 3.1.**
- 59 3. **New definitions and acronyms are added to Appendix A.**
- 60 4. **Added new training requirements throughout the document.**
- 61 5. Updated the format of the document in this version and made minor editorial
62 changes throughout.

63 Hyperlinks (allowing the reader to access documents located on the internet and to
64 maneuver within this document) are provided throughout this document and are
65 identified with underlined text. When navigating within this document, return to the

66 previously viewed page by pressing the “ALT” and “ ← ” (left arrow) keys
67 simultaneously.

68 **6 Where to Find this AC.**

69 You can view a list of all ACs at
70 https://www.faa.gov/regulations_policies/advisory_circulars/. You can view the Federal
71 Aviation Regulations at https://www.faa.gov/regulations_policies/faa_regulations/.

72 **7 Feedback on this AC.**

73 If you have suggestions for improving this AC, you may use the [Advisory Circular](#)
74 [Feedback](#) form at the end of this AC.

John R. Dermody
Director of Airport Safety and Standards

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CONTENTS

Paragraph	Page
75	CHAPTER 1. Standards and Resources for Procedures on Fuel Storage, Handling, and
76	Dispensing 1-1
77	1.1 Introduction..... 1-1
78	1.2 Standards..... 1-1
79	1.3 Copies of Standards..... 1-1
80	CHAPTER 2. Fuel Safety Training..... 2-1
81	2.1 Introduction..... 2-1
82	CHAPTER 3. Required Training Topics..... 3-1
83	3.1 Mandatory Elements for Supervisory and Line Service Fuel Safety Training
84	Programs..... 3-1
85	CHAPTER 4. Supervisors Training Course 4-1
86	4.1 Instructors..... 4-1
87	4.2 Handheld Fire Extinguishers..... 4-1
88	CHAPTER 5. Testing, Certification, and Recordkeeping..... 5-1
89	5.1 Exams..... 5-1
90	5.2 Recordkeeping..... 5-1
91	CHAPTER 6. Guidelines for Submitting Line Service and/or Supervisory Safety
92	Course(s)..... 6-1
93	6.1 Supervisory Training Program and/or Line Training Program..... 6-1
94	6.2 Supervisors Fuel Training Curriculum..... 6-1
95	6.3 Line Service Fuel Safety Training Curriculum..... 6-1
96	6.4 Review and Approval..... 6-2
97	Appendix A. Definitions and AcronymsA-1
98	A.1 Definitions.....A-1
99	A.2 Acronyms.....A-2
100	Appendix B. Additional Resources.....B-1
101	B.1 ATA Spec 103.....B-1
102	B.2 ASTM Manual 5, <i>Aviation Fuel Quality Control Procedures</i>B-1

CONTENTS

Paragraph	Page
103 B.3 Addendum of Authorized Fuel Safety Training Courses.	B-1

104 **CHAPTER 1. Standards and Resources for Procedures on Fuel Storage, Handling, and**
105 **Dispensing**

106 1.1 **Introduction.**

107 Many standards and resources exist throughout the fueling industry to provide guidance
108 on the proper and safe method for handling aviation fuels.

109 1.2 **Standards.**

110 The FAA uses the standards contained in the most recent edition of National Fire
111 Prevention Association (NFPA) 407, *Standard for Aircraft Fuel Servicing*. NFPA 407
112 provides a standard for the storage and delivery of aviation fuel in an airport
113 environment.

114 1.3 **Copies of Standards.**

115 You can order NFPA 407 from:

116 National Fire Protection Association

117 1 Batterymarch Park

118 Quincy MA 02169-7471

119 1-800-344-3555

120 <https://www.nfpa.org>

121 NFPA 407 may also be viewed online from the NFPA website as a read-only document
122 at: <https://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=407>.

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CHAPTER 2. Fuel Safety Training

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This chapter provides guidance on the development of the supervisory fuel safety and the line service fuel safety training courses. This chapter also identifies the areas that will be addressed in these courses based on the minimum standards established in 14 CFR §139.321 (b) (1) – (7) and §139.321 (e). Chapter 4 of this AC identifies further areas of competence that will be met for the Supervisory Training Course due to the responsibilities inherent in training others in fire safety.

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2.1 Introduction.

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2.1.1 14 CFR §139.321 sets forth the requirements for fuel safety training at certificated airports. These requirements include two distinct types of training for employees of agents handling aviation fuel: (1) supervisory training and (2) line service fuel safety training. Training performed under the supervisory training program will be obtained by completing an FAA authorized Supervisory Fuel Safety training course. Line service fuel safety training may be provided by (1) a supervisor who has completed the supervisory course or (2) the completion of an authorized line service fuel safety training program. The material and program utilized by a certified supervisor to provide training to their company employees does not need to be reviewed or approved by the FAA. 14 CFR §139.321 requires that all fueling agent employees handling aviation fuels must complete fuel safety training (see paragraphs 2.1.3 and 2.1.4 for further details).

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2.1.2 Incidents and accidents caused by the mishandling of fuels and other hazardous materials are vital concerns of both the FAA and airport operators. Additionally, the FAA and other local and federal agencies are concerned with activities related to conditions that lead to personnel injuries and damage to property, as well as those attributable to insufficient attention to the impacts that fuel and lubricant products have on the environment when not used properly. For these reasons, airports certificated under Part 139 must ensure training is received in the areas listed in 14 CFR §139.321 (b) for personnel whose duties and responsibilities involve the handling and storing of hazardous substances and materials.

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2.1.3 Part 139.321(e) (1) requires “At least one supervisor with each fueling agent must have completed an aviation fuel training course in fire safety that is authorized by the Administrator. Such an individual must be trained prior to initial performance of duties, or enrolled in an authorized aviation fuel training course that will be completed within 90 days of initiating duties, and receive recurrent instruction at least every 24 consecutive calendar months.”

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2.1.4 Part 139.321(e) (2) requires “All other employees who fuel aircraft, accept fuel shipments, or otherwise handle fuel must receive at least initial on-the-job training and recurrent instruction every 24 consecutive calendar months in fire safety from the supervisor trained in accordance with paragraph (e)(1) of this section.” Training for employees may also be completed using an approved line service fuel safety course.

- 163 The FAA lists supervisory and line service programs currently available nationally in
164 the Addendum, which is updated quarterly. It can be found along with this AC on the
165 FAA's website.
- 166 2.1.5 14 CFR §139.321 (b) places the responsibility of determining standards for fueling
167 safety on the individual airport based on state, local, or municipality fueling regulations.
168 The FAA does not intend this AC to replace airport procedures that are tailored to meet
169 requirements imposed because of the use of special equipment or as a result of local
170 regulations.
- 171 2.1.6 This AC provides guidelines in Chapter 5 for submitting a supervisory and/or a line
172 service fueling safety program to the FAA for national acceptance.
- 173 **2.1.7 General Components of a Fuel Safety Training Program.**
- 174 2.1.7.1 **General Training Topics.**
175 The specific training topics included in a supervisory and line service fuel
176 safety course must include, at minimum, the components outlined in the
177 supervisor's training curriculum.
- 178 2.1.7.2 **Fire Code in Effect.**
- 179 2.1.7.2.1 NFPA 407, *Standard for Aircraft Fuel Servicing*, is the generally accepted
180 fire code at many airports. However, the local fire code and regulations in
181 effect at a specific airport may differ from NFPA 407. Information on
182 local fire codes in effect are a vital component of fuel safety training and
183 are a requirement of both the supervisory and line service program.
- 184 2.1.7.2.2 Airport Operators holding a Part 139 certificate should be aware that it is
185 their duty to provide a briefing to tenant fueling agents on the fire codes in
186 effect at the airport differing from NFPA 407.
- 187 2.1.8 **Handheld Fire Extinguishers.**
188 Each fueling agent employee handling aviation fuel must receive hands-on training in
189 the proper use of handheld fire extinguishers. Companies listed in the Addendum must
190 provide this training or highlight the requirement for the student to receive this training
191 from the local fire department or other qualified source. For initial and recurrent
192 handheld fire extinguishers training, a realistic training device should have the
193 approximate weight and discharge characteristics of the actual handheld extinguisher
194 used in fuel servicing areas.
- 195 2.1.9 **Airport Specific Courses.**
196 An individual airport may create and submit for approval a supervisory or line service
197 course in fuel safety that is specific to an airport. Such a course may exclude items from
198 paragraph 3.1 that do not apply to that specific airport.

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CHAPTER 3. Required Training Topics**3.1 Mandatory Elements for Supervisory and Line Service Fuel Safety Training Programs.**

A fuel safety training program should include:

1. An orientation that addresses:
 - a. Purpose of the course
 - b. Expected outcomes as identified in 14 CFR §139.321
 - c. Familiarity with applicable FAA ACs, fire codes, and fire and fuel safety organizations and their publications
 - d. Knowledge of fuel types
 - e. Fueling of different types of aircraft
2. Basic safety practices including:
 - a. Protection against fire and explosions
 - b. Safe handling and storage procedures for fuels and lubricants
 - i. Identification and marking of DEF, and
 - ii. Fuel System Icing Inhibitor (FSII)
 - c. An understanding of the term “hazardous materials” and procedures for handling hazardous materials and other fuels and lubricants
 - d. Use of Personal Protective Equipment (PPE) including eye protection, ear protection, hand protection, and proper types of clothing and shoes/boots
 - e. Prohibition on carriage of smoking materials (i.e., cigars, cigarettes, lighters, matches, **electronic smoking devices (also called e-cigarettes)**, and pipes)
 - f. First aid for responding to contact with aviation fuels or lubricants, including ingestion, inhalation, and contact with eyes or bare skin
3. Bonding
 - a. Definitions as contained in NFPA 407
 - b. Physics of bonding (what/when/why)
 - c. How to ground versus how to bond:
 - i. Where and how to bond
 - ii. Types of bonding equipment
 - iii. Correct bonding procedures
 - d. Static electricity
 - e. Fuel flash points

- 232 4. Public protection
- 233 a. Protection from sources of ignition
- 234 b. Proper ramp fueling procedures including aircraft with passengers on board
- 235 c. Coordination with flight crew prior to fueling aircraft
- 236 d. Situations requiring cessation of fueling procedures
- 237 5. Fire classification and appropriate types of extinguishers
- 238 a. Fire classifications and extinguisher types used
- 239 b. Inspections, safety, and personnel protection after a spill
- 240 c. Hands-on training in use of a portable fire extinguisher
- 241 6. Control of access to storage areas
- 242 a. Fences and gates/locks
- 243 b. Signs and other required placarding (e.g., “No smoking,” “Jet A,” “AVgas”)
- 244 c. Protection and security associated with fuel farms including proper
- 245 authorizations and procedures
- 246 d. Safety awareness (location and operation of fire extinguishers, location of
- 247 emergency shutoffs, communications for assistance)
- 248 7. Fire safety in fuel farm and storage areas
- 249 a. Verification of product types
- 250 b. Fuel farm inspection procedures
- 251 c. Fueling operations at fuel storage facilities during low visibility and night
- 252 operations
- 253 d. Fuel delivery operations including the use of hoses, valves, and other equipment
- 254 e. Proper procedures for fuel equipment use/storage (nozzle covers, securing of
- 255 equipment when not in use)
- 256 f. Leak and spill prevention
- 257 g. Product leaks and contamination
- 258 h. Emergency procedures and notifications
- 259 i. Local spill reporting procedures
- 260 ii. Spill control and containment (limited quantity)
- 261 iii. Spill (large quantity) and aircraft rescue and firefighting notification
- 262 requirements
- 263 iv. Cleanup procedures
- 264 i. Effects of weather on fueling operations
- 265 8. Fire safety in mobile fuelers, fueling pits, and fueling cabinets

- 266 a. Weight and balance, driving requirements, speed precautions, and driver
267 qualifications
- 268 b. Inspection of fueling vehicle and the sumping, exhaust, and muffler system
- 269 c. Procedures and vehicle placement for fueling operations, controls, interlocks,
270 brakes, and chocking
- 271 d. Mobile fueler refueling procedures
- 272 e. Parking requirements and separation distances
- 273 f. Fueling pit safety/procedures/product leaks/clean-up
- 274 g. Fueling cabinet safety procedures
- 275 9. Misfueling Prevention Training
- 276 a. Misfueling prevention training should include instruction on:
- 277 i. Components of a correct fuel order (written or verbal)
- 278 1. Aircraft registration (tail) number
- 279 2. Type and grade of fuel
- 280 3. Volume of fuel and distribution among aircraft fuel tanks
- 281 ii. Use of Selective-Nozzle spouts and controls for Non-Selective Jet fuel
282 “round/rogue” spouts
- 283 b. DEF Contamination Prevention
- 284 i. The purpose and function of DEF.
- 285 ii. The purpose and function of FSII
- 286 iii. The identified risk of DEF contamination
- 287 1. Mistaking DEF for FSII and adding it to FSII storage tanks/reservoirs on
288 refueling equipment
- 289 2. Using non-dedicated transfer equipment in the handling of FSII
- 290 10. Hands on Fire Extinguisher Training - All fueling personnel, not just the supervisor,
291 must receive hands-on fire extinguisher training every two years. During Hands-On
292 Training (HOT), the trainee will feel the weight associated with an extinguisher,
293 know how it feels to discharge agent, and know how to sweep the nozzle toward a
294 fire, however, a live fire is not required. While extinguishing a live fire does provide
295 the best training, the FAA understands there are limitations imposed in certain
296 localities and will accept recurrent training conducted with realistic training devices.
297 HOT topics for fire extinguishers must include:
- 298 a. Purpose of the fire extinguisher.
- 299 b. How to identify the classification of extinguisher used for a liquid fuel fire.
- 300 c. Nomenclature of the fire extinguisher.
- 301 d. How to inspect of the components of the fire extinguisher for serviceability.

- 302 e. Proper storage and removal of the extinguisher from the fueling vehicle or fuel
303 cart.
- 304 f. Demonstration of the proper use/operation of an extinguisher (PASS):
- 305 i. Pull the safety pin,
- 306 ii. Aim nozzle at the base of the fire,
- 307 iii. Squeeze the handle from a safe distance, and
- 308 iv. Sweep the nozzle from side to side to extinguish the fire.
- 309 g. Demonstration by all course participants that they can: a. Select the appropriate
310 extinguisher based on the size and type of fire, safely carry, approach a fire, and
311 operate a portable fire extinguisher.
- 312 h. Using a handheld fire extinguisher or realistic training device, and discharge
313 agent from the handheld extinguisher in a manner sufficient to extinguish the
314 fire.

315 **Note:** For training purposes, a live fire is not required and may be
316 simulated, however, a realistic training device must be used. Realistic
317 training devices should have the approximate weight and discharge
318 characteristics of the actual hand-held extinguisher used in fuel servicing
319 areas.

320 **Note:** For training purpose only, the extinguisher can use water instead of
321 dry chemical.

322 **Note:** All fuel servicing supervisors and line personnel must complete
323 handheld fire extinguisher training either 60 days prior to or after
324 completing either the supervisory or line service training if it was not
325 provided by one of the certified fuel service training courses identified in
326 the associated Addendum. The fueling supervisor may also have been
327 trained to teach hands-on fire extinguisher training.

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CHAPTER 4. Supervisors Training Course

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The contents of Chapter 2 form the basis of the Supervisory Training Course. Chapter 3 identifies the additional requirements to meet in the Fire Safety for Supervisors Training Course. In addition, the depth of instruction in each section identified in Chapter 2 must be sufficient enough to ensure that supervisors understand the material and their responsibilities in training others in fire safety. The FAA recommends that instructors teaching the Supervisor Fuel Training Course possess:

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1. A thorough working knowledge of the contents of Chapter 2 and requirements of 14 CFR §139.321(b)(1) through (b)(7) and §139.321(e) (1) and (2).

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2. A minimum of two years of experience in all aspects of fueling procedures.

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4.1 Instructors.

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Instructors teaching the Supervisor Fuel Training Course must be able to discuss training methodologies and motivation and understand how to test student comprehension and recognition.

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4.2 Handheld Fire Extinguishers.

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Each fueling supervisor must receive training in the proper identification and use of handheld fire extinguishers. Companies listed in the Addendum must provide this training or identify the requirement for the student to receive this training from their local fire department or other qualified source.

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CHAPTER 5. Testing, Certification, and Recordkeeping349 5.1 **Exams.**

350 Exams or tests may be oral, written, practical **application**, or a combination. All test
351 questions **will** be researched and referenced with validation of correct answers shown in
352 the master test and retained on file.

353 5.2 **Recordkeeping.**

354 The purpose of record-keeping is to demonstrate compliance with the requirements of
355 14 CFR 139.321. All fueling agents should maintain adequate records to demonstrate:

356 5.2.1 That at least one supervisor has completed an authorized Supervisor Fuel Safety course,
357 received hands-on fire extinguisher training from a qualified source, and a received a
358 briefing on the local fire codes in effect at their airport within the last 24 months.

359 5.2.2 That in the last 24 months, all other employees have received training from the
360 supervisor described in (a) that includes the topics outlined in Chapter 3 (or have
361 completed an authorized Line Service Fuel Safety course) and received hands on fire
362 extinguisher training.

363 5.2.3 Continuity of Training.

364 Fueling agents must retain enough records to demonstrate that continuity of training has
365 been maintained for all employees during the time they are authorized to handle
366 aviation fuels.

367 5.2.3.1 Demonstration of continuity of training is only required for the previous
368 24 months. This may require retaining some records beyond 24 months.

369 5.2.3.2 **Example.**

- 370 1. Employee A completes all components of supervisor fuel safety
371 training in November 2017 and again in November 2019.
- 372 2. During an inspection in April of 2020 the fueling agent would need to
373 produce Employee A's training records for November 2017 and
374 November 2019 to demonstrate continuity of training from April 2018
375 (24-month lookback).

376 5.2.3.3 Demonstration of continuity of training can be achieved by maintaining all
377 training records for 48 months. However, other digital storage and
378 reporting functions may be deemed acceptable.

379 5.2.4 Employees.

380 Fueling agents must demonstrate that all new employees received training on the topics
381 in Chapter 3 (or completed an authorized line service fuel safety course) and received
382 HOT prior to commencing unsupervised fuel handling.

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383 **CHAPTER 6. Guidelines for Submitting Line Service and/or Supervisory Safety Course(s)**

384 6.1 **Supervisory Training Program and/or Line Training Program.**

385 6.1.1 Purpose.

386 This chapter establishes the standards for submitting a Fueling Safety Training Program
387 for Supervisory Personnel and/or Fueling Safety Training Program for Line Service
388 Personnel. It provides guidance for addressing the requirements of 14 CFR §139.321 (e)
389 (1) and (2) and the additional requirements for supervisory personnel stipulated by
390 §139.321 (b) (1) – (7).

391 6.1.2 Explanation.

392 Fueling Safety Programs ensure supervisory and line fueling personnel recognize the
393 importance of aircraft fueling safety. Fueling supervisory courses are designed to
394 emphasize the importance of instructing effectively in the principles necessary to ensure
395 safety during fueling operations on airports.

396 6.1.3 Introduction.

397 Fueling safety involves several areas: aircraft fueling, fuel transport, and fuel storage.
398 Failure to follow safe operating procedures during any of these activities, on and off the
399 airport, can result in accidents. Fueling procedures and practices have been designed to
400 minimize the risks associated with flammable materials for the protection of fuelers
401 themselves, other airport personnel, and the general public. Instruction in this subject is
402 vital and a necessary part of airport safety.

403 6.2 **Supervisors Fuel Training Curriculum.**

404 *Ensure the curriculum addresses the contents of Chapters 3 and 4. An outline of the*
405 *course, testing material, references, and a sample of the course completion certificate*
406 *(or other means of demonstrating completion) must be submitted to the FAA for review.*
407 *A Supervisory Fuel Training Curriculum that does not include actual hands-on fire*
408 *extinguisher training and local airport fire code briefing must clearly indicate that those*
409 *two items are required components to fully comply with 14 CFR §139.321.*

410 6.3 **Line Service Fuel Safety Training Curriculum.**

411 *Ensure the curriculum addresses the contents of Chapter 2. An outline of the course,*
412 *testing material, references, and a sample of the course completion certificate (or other*
413 *means of demonstrating completion) must be submitted to the FAA for review. A Line*
414 *Service Fuel Training Curriculum that does not include actual hands-on fire*
415 *extinguisher training must clearly indicate that actual hands-on fire extinguisher training*
416 *is required to fully comply with 14 CFR §139.321.*

417 6.4 **Review and Approval.**

418 6.4.1 All courses should be submitted for initial approval **and** whenever there **are** any major
419 rewrites or changes to the material being taught.

420 6.4.2 Send curriculum materials to:

421 Federal Aviation Administration
422 Manager, Airport Safety and Operations
423 Attn: Fuel Safety Training
424 800 Independence Ave., SW
425 AAS-300, Room 618
426 Washington DC 20591

427 6.4.3 The FAA will add acceptable courses to the Addendum of Authorized Fuel Safety
428 Training Courses on a quarterly basis.

429

APPENDIX A. DEFINITIONS AND ACRONYMS430 **A.1 Definitions.**

- 431 1. **Airport Fueling Agent** - An airport operator/certificate holder that sells fuel
432 products on the airport.
- 433 2. **Airport Fueling System** - An arrangement of aviation fuel storage tanks, pumps,
434 piping, and associated equipment such as filters, water separators, hydrants and
435 station, or aircraft fuel servicing vehicles, installed at an airport and designed to
436 service aircraft at fixed positions.
- 437 3. **Authority Having Jurisdiction (AHJ)** - An organization, office, or individual
438 responsible for enforcing the requirements of a code or standard or for approving
439 equipment, materials, an installation, or a procedure.
- 440 4. **Dead Man Control** - A device that requires a positive **continual** action of a person
441 to allow the flow of fuel.
- 442 5. **Emergency Fuel Shutoff** - A function performed to stop the flow of fuel in an
443 emergency.
- 444 6. **Fueling Agent** - A person or company that sells fuel products on the airport. This is
445 intended to exclude the self-fueling activities of an airline or corporation that
446 conducts self-fueling.
- 447 7. **Self-Fueling and Self-Service** - Self-fueling means the fueling or servicing of an
448 aircraft by the owner of the aircraft with his or her own employees and using his or
449 her own equipment. Self-fueling cannot be contracted out to another party. Self-
450 fueling implies using fuel obtained by the aircraft owner from the source of his/her
451 preference. Self-fueling differs from using a self-service fueling pump made
452 available by the airport, a Fixed Base Operator (FBO), or an aeronautical service
453 provider. The use of a self-service fueling pump is a commercial activity and is not
454 considered self-fueling, as defined herein. Self-service includes activities such as
455 adjusting, repairing, cleaning, and otherwise providing service to an aircraft,
456 provided the service is performed by the aircraft owner or his/her employees with
457 resources supplied by the aircraft owner. Title 14 CFR Part 43 of the Federal
458 Aviation Regulations permits the holder of a pilot certificate to perform specific
459 types of preventative maintenance on any aircraft owned or operated by the pilot.
- 460 **Note:** Fueling from a pull-up commercial fuel pump is not considered self-fueling
461 under the Federal grant assurances since it involves fueling from a self-service
462 pump made available by the airport or a commercial aeronautical service provider.
- 463 8. **Tenant Fueling Agent** - A person or company that sells fuel products on the
464 airport, other than the certificate holder.

465	A.2	Acronyms.	
466		AC	Advisory Circular
467		AHJ	Authority Having Jurisdiction
468		AIP	Airport Improvement Program
469		CFR	Code of Federal Regulations
470		DEF	Diesel Exhaust Fluid
471		DOT	Department of Transportation
472		FAA	Federal Aviation Administration
473		FBO	Fixed Base Operator
474		FSII	Fuel System Icing Inhibitor
475		HOT	Hands-on Training
476		NFPA	National Fire Protection Association
477		PFC	Passenger Facility Charge
478		PPE	Personal Protective Equipment

479

APPENDIX B. ADDITIONAL RESOURCES480 B.1 **ATA Spec 103.**

481 Spec. 103, *Standard for Jet Fuel Quality Control at Airports*, produced by Airlines for
482 America provides guidance for the safe storage and distribution of jet fuel at airports as
483 currently practiced in the commercial aviation industry. Spec. 103 can be obtained
484 from:

485 **A4A Publications Department**
486 **1301 Pennsylvania Avenue, NW Suite 1100**
487 **Washington, DC 20004**
488 **202-626-4062**

489 <https://publications.airlines.org>.

490 B.2 **ASTM Manual 5, *Aviation Fuel Quality Control Procedures*.**

491 Manual 5 provides a complete explanation of several common procedures used by fuel
492 handlers to assess and protect aviation fuel quality. **Manual 5 can be obtained by**
493 **contacting:**

494 **ASTM Customer Service**
495 **610-832-9585**
496 **B-4-9555**

497 service@astm.org

498 B.3 **Addendum of Authorized Fuel Safety Training Courses.**

499 The current Addendum, updated quarterly, is available online with this AC at
500 http://www.faa.gov/regulations_policies/advisory_circulars/.

Advisory Circular Feedback

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by (1) mailing this form to Manager, Airport Engineering Division, Federal Aviation Administration ATTN: AAS-100, 800 Independence Avenue SW, Washington DC 20591 or (2) faxing it to the attention of the Office of Airport Safety and Standards at (202) 267-5383.

Subject: AC 150/5230-4C

Date: _____

Please check all appropriate line items:

An error (procedural or typographical) has been noted in paragraph _____ on page _____.

Recommend paragraph _____ on page _____ be changed as follows:

In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

Other comments:

I would like to discuss the above. Please contact me at (phone number, email address).

Submitted by: _____

Date: _____