

**BY ORDER OF THE COMMANDER
ROBINS AIR FORCE BASE**

**ROBINS AIR FORCE BASE
INSTRUCTION 32-2001**



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Civil Engineering**

**FIRE PROTECTION OPERATIONS
AND FIRE PREVENTION PROGRAM**

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This instruction aligns with AFD 32-20, *Fire and Emergency Services*, and supplements AFI 32-2001, *Fire and Emergency Services (F&ES) Program*. It establishes policies, practices, and procedures for a comprehensive, base-level fire protection program at Robins Air Force Base (RAFB). It applies to all personnel assigned or attached to units at RAFB, to include all tenant organizations. It assigns responsibilities for fire prevention and protection and establishes a recognized standard practice for safeguarding life and property from the effects of fire. Failure to prevent fires could seriously hamper mission accomplishment here and at other bases worldwide. Therefore, it is essential that all personnel, military and civilian, maintain constant vigilance to prevent needless loss of life and property to fire. This instruction is consistent with Occupational Safety and Health (OSHA) standards, Air Force Safety and Health standards, National Fire Protection Association (NFPA) codes, Unified Facilities Criteria (UFC) 3-600-01, *Fire Protection Engineering for Facilities*, Engineering Technical Letters (ETL), and the International Building Code (IBC), as applicable. NFPA codes are now accessible on the Air Force Portal. Standards for unique conditions for which no fire prevention criteria have been developed or published will be developed according to the recommendation of the RAFB Fire and Emergency Services (F&ES). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR, 778 CES/CEXF) using Air Force (AF) Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional's chain of command. Ensure all records are maintained in accordance with Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>.

This publication may be supplemented at any level, but all direct supplements must be routed to the OPR of this publication for coordination prior to certification and approval. Requests for waivers must come through the chain of command from the commander of the office seeking relief from compliance. Waiver requests must be submitted to the OPR; waiver authority has not been delegated. The waiver approval authority for all compliance items within this publication are at Wing Level (Tier T-3, at a minimum) and may require MAJCOM level (Tier-2) or Air Force Civil Engineer Center (AFCEC, Tier-1) level depending on the specifics of the requested waiver. See [Attachment 1](#) for a glossary of references and supporting information.

SUMMARY OF CHANGES

This publication enhances and streamlines the previous guidance and has been substantially revised and must be completely reviewed.

Chapter 1—ADMINISTRATION AND ENFORCEMENT	6
1.1. Purpose:	6
1.2. Authority:.....	6
1.3. Objective:.....	6
1.4. Fire Prevention Program:.....	6
1.5. Fire Prevention and Public Education:	6
1.6. Fire Protection Engineering Program:	7
1.7. Construction Requirements, Alterations, Modifications, and Self-Help Projects: ..	7
1.8. Change of Occupancy:.....	7
1.9. Notification of Public Gatherings:	7
Chapter 2—RESPONSIBILITIES	9
2.1. Commander/Director:	9
2.2. Facility Managers:	9
2.3. Supervisors and Employees:	10
2.4. Contractors:.....	10
2.5. Security Forces:	10
Chapter 3—FIRE SAFETY DEFICIENCIES	11
3.1. Fire Safety Deficiency (FSD):	11
3.2. FSD Correction/Mitigation Process:.....	11
Figure 3.1. FSD I/II Flow Process.....	12

Chapter 4—EMERGENCY PROCEDURES AND EQUIPMENT 13

4.1. Procedures in Case of Fire: 13

4.2. Driver Operators Responsibilities:..... 13

4.3. Fire Extinguishers: 13

4.4. Flight Line Extinguishers: 14

4.5. Tampering with Fire Safety Equipment: 15

4.6. Reports and Records: 15

Chapter 5—GENERAL FIRE SAFETY 16

5.1. Fire Hydrants: 16

5.2. Fire Lanes/Fire Access Ways: 16

5.3. Evacuation Plans:..... 16

5.4. Fire/Evacuation Drills:..... 17

5.5. Fire Doors: 17

5.6. Fire Protection Equipment: 17

5.7. Smoking:..... 18

5.8. Electrical Safety:..... 18

5.9. Cooking Appliances:..... 19

5.10. Heating Appliances:..... 20

5.11. Open Fires/Barbecues/Fireworks:..... 20

5.12. Decorations: 21

5.13. Parking of Vehicles:..... 21

5.14. Storage and Handling: 21

5.15. Storage in Mechanical and Boiler Rooms: 21

5.16. Garbage:..... 22

5.17. Vacant Buildings: 22

5.18. Exits: 22

5.19. Exit Signs/Emergency Lighting:..... 22

5.20. Means of Locking and Securing Exits: 23

5.21. Travel Distance Limitations:..... 23

Chapter 6—HAZARDOUS MATERIALS	24
6.1. Explosives, Blasting Agents and Pyrotechnics:	24
6.2. Flammable and Combustible Liquids:	26
Table 6.1. Flammable and Combustible Classes.	26
6.3. Flammable Solid:	30
6.4. Compressed Gases and Cryogenic Liquids:	33
6.5. Corrosives and Oxidizers:	38
6.6. Pesticides and Poisons:	41
6.7. Radioactive Materials:	45
6.8. Hazardous Cargo:	46
6.9. Petroleum, Oil and Lubricants (POL) Storage Areas:	47
6.10. Miscellaneous Requirements:	48
Chapter 7—SPECIAL OPERATIONS	51
7.1. Airfield Operations:	51
7.2. Services Station/Fueling Operations:	51
7.3. Welding, Cutting, Brazing and Grinding.	51
7.4. Confined Spaces:	52
7.5. Painting Operations:	52
7.6. Tar Pots and Kettles:	53
7.7. Model Rockets:	53
7.8. Tents/Canopies:	53
Chapter 8—FIRE SAFETY IN OCCUPANCIES	54
8.1. Public Assembly:	54
8.2. Educational/Daycare Facilities:	54
8.3. Warehouses:	54
8.4. Battery Shops:	55
8.5. Museums:	55
8.6. Fire Prevention Assistance:	55
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION	56

Attachment 2—FACILITY MANAGER MONTHLY CHECKLIST	62
Attachment 3—PUBLIC ASSEMBLY MANAGERS CLOSING CHECKLIST	64
Attachment 4—FIRE SAFETY DEFICIENCY CODE DECISION MATRIX	65
Attachment 5—FIRE WATCH CHECKLIST	67
Attachment 6—FIRE SAFETY DEFICIENCY SIGN	69

Chapter 1

ADMINISTRATION AND ENFORCEMENT

1.1. Purpose:

1.1.1. This instruction defines policies/responsibilities and sets standards/procedures for fire prevention and fire protection from a facility engineering perspective.

1.1.2. This instruction establishes minimum fire prevention measures for complete fire protection services to prevent loss of life or personal injuries and reduce property loss to the lowest attainable level consistent with mission, sound engineering, and economic principles.

1.2. Authority:

1.2.1. This program is directed IAW AFI 32-2001, FIRE AND EMERGENCY SERVICES (F&ES) PROGRAM

1.2.2. The RAFB Fire and Emergency Services (F&ES) Flight is authorized to inspect at reasonable times, any building, or premises for dangerous or hazardous conditions or materials as set forth in this standard. The fire department will inform any entity failing to comply with this standard that they are in violation of the directives of this document. All violations will be recorded in writing and the reference standard noted.

1.2.3. The fire department is not authorized to approve waivers, exceptions, or alterations. Waivers, exceptions, and alterations concerning fire protection will be made in accordance with AFI 32-2001 and AFI 32-10141, Planning and Programming Fire Safety Deficiency Correction Projects.

1.3. Objective:

1.3.1. The objectives of the Fire Prevention Program are to prevent fires, facilitate early intervention of fires that occur, and ensure the safety of exposed personnel during fires. These objectives are accomplished through four program elements: F&ES facility plan reviews, fire prevention inspections, code enforcement and fire safety education.

1.4. Fire Prevention Program:

1.4.1. Every Air Force activity will have a fire prevention program based on its size, mission, and available resources.

1.4.2. The Base Fire Marshal (78 CEG/CL) is responsible to the installation commander for oversight of F&ES programs and provides the Installation Fire Chief (IFC) the resources available to execute the F&ES mission.

1.4.3. Per AFI 32-2001, fire prevention inspections are conducted at least annually for all facilities. The IFC may institute more frequent inspections to include unannounced and after-hours inspections.

1.5. Fire Prevention and Public Education:

1.5.1. The Fire Prevention Section is available to present fire prevention briefings and hands-on portable extinguisher training. Call the Fire Prevention Section at DSN 468-2145 to request this training.

1.5.2. The Fire Prevention Section promotes fire safety and National Fire Prevention Week held during the week of 9 October each year.

1.5.3. Sparky the Fire Dog and Smokey the Bear are available upon request throughout the year. Contact the Fire Prevention Section at DSN 468-2145.

1.6. Fire Protection Engineering Program:

1.6.1. All facilities and structures on base shall be designed with the appropriate fire protection and safety features. Prior to new construction of any facility, regardless of real property status, the Fire Prevention Section shall review plans to ensure all required features are present and local emergency response elements are incorporated (i.e., accessibility to facility, location of fire hydrants, etc.).

1.6.2. All construction, alterations, modifications, renovations, and self-help projects shall be coordinated with the 78 Civil Engineering Group and the base Fire Prevention Section DSN 468-2145. All work must be documented on a TRIRIGA Service Request and submitted through proper TRIRIGA channels.

1.7. Construction Requirements, Alterations, Modifications, and Self-Help Projects:

1.7.1. Ensure all construction at RAFB comply with the provisions of all applicable ETL, NFPA Standards, Base Facility Standard (BFS), and requirements within UFC 3-600-01. This applies to new construction, reconstruction, alterations, modifications, self-help projects, and maintenance or repair of existing facilities.

1.7.2. Buildings or portions of buildings may be occupied during construction, repair, alterations, or additions only if all means of egress and all fire protection features are in place and continuously maintained.

1.7.3. The installation Fire Prevention Section shall be notified in writing of all pre-construction conferences, pre-final, and final facility inspections.

1.8. Change of Occupancy:

1.8.1. If a change of occupancy or portion of occupancy is required in an existing or new facility, this change shall conform to the requirements IAW UFC 3-600-01.

1.8.2. Submit a TRIRIGA Service Request for any change of occupancy.

1.9. Notification of Public Gatherings:

1.9.1. Notify the base Fire Prevention Section at least one month prior to any gathering that will be conducted in a facility not specifically designed as a place of assembly. This will ensure all NFPA 101 *Life Safety Code* requirements are met, and the event is conducted safely.

1.9.2. Event coordinator shall provide a Life Safety Floor Plan in writing to the Fire Prevention Section. Floor plan will contain a drawing of the area being used (with measurements) to include table/seating configuration, exhibit booth layout, stage location, exits, floor restrictions, and evacuation assembly locations.

1.9.3. Notify the base Fire Prevention Section at DSN 468-2145 of all major social events when temporary decorations or unusual arrangements exits.

1.9.4. The Facility Manager or other responsible parties at all public assembly gatherings held indoors, prior to the start of any function, shall read the following announcement: "Exits are in the places I am now indicating. In the event of a fire, alarm activation or other emergency necessitating evacuation, please move in a calm and orderly manner to the nearest exit and report to the evacuation assembly location".

Chapter 2

RESPONSIBILITIES

2.1. Commander/Director:

2.1.1. The most critical ingredient in an effective fire prevention and fire protection program is the commander/director's awareness, involvement, and active participation.

2.1.2. Commanders/Directors and chiefs of principal organizations are responsible for the fire prevention program in their areas of responsibility. Personnel appointed as Facility Managers shall complete the Facility Managers' annual training.

2.1.3. Commanders/Directors shall sign all AF Form 1487, Fire Prevention Visit Reports, issued against facilities and operations under their control and acknowledge uncorrected hazards or FSDs.

2.1.4. Commanders/Directors shall ensure that all assigned personnel are familiar with fire reporting procedures, evacuation actions, fire prevention measures, and fire extinguisher use.

2.2. Facility Managers:

2.2.1. Primary and alternate Facility Managers (FM) are required to complete the Facility Managers' training upon the initial appointment and annually thereafter. This training is available by contacting 78 CES/CEOER.

2.2.2. FM shall keep emergency contact names and phone numbers up to date with 78 CES/CEOER (Customer Service).

2.2.3. FM shall ensure all buildings are numbered and clearly visible IAW UFC 3-120-01 and the base facility standard.

2.2.4. FM or their designee will accompany the fire inspector during the inspection.

2.2.4.1. The fire inspector shall notify the FM of all fire hazards or deficiencies noted via AF Form 1487, *Fire Prevention Visit Report*. The corrective actions to complete the AF Form 1487 are on the reverse side of the AF Form 1487.

2.2.4.2. FMs are responsible for correcting deficiencies/hazards noted during the fire inspection. Submit a TRIRIGA Service Request for items that cannot be corrected immediately. FM are also responsible for performing follow-up on submitted TRIRIGA Service Request.

2.2.4.3. FM shall return the completed AF Form 1487 to include the commanders/director's signature within the assigned suspense date. FM will take interim corrective actions on all identified items that cannot be corrected by the suspense date.

2.2.5. FM will maintain all facility fire extinguishers in a ready-to-use condition, inspect them monthly, and ensure extinguishers receive their annual or six-year maintenance inspection. Keep inspection records on hand for the fire inspector to review.

2.2.6. FM shall maintain a fire prevention monthly checklist ([Attachment 2](#)). This checklist will be the minimum standard for monthly fire prevention checks. The checklist will be on file for the fire inspectors' review.

2.3. Supervisors and Employees:

2.3.1. Supervisors and employees are responsible for ensuring their work centers are free of fire hazards/deficiencies. Eliminate all hazards and deficiencies immediately, or up-channel discrepancies for corrective action.

2.4. Contractors:

2.4.1. All contractors performing work on this installation shall be responsible for fire safety and comply with all applicable OSHA, State, Air Force directives, and base instructions.

2.4.2. Prior to any work, the Prime Contractor shall attend a pre-contractor's fire safety briefing.

2.4.3. The Prime Contractor shall ensure that all personnel and sub-contractors under their control receive a briefing on fire prevention practices IAW this instruction.

2.5. Security Forces:

2.5.1. The Base Defense Operations Center (BDCOC) or Law Enforcement Desk (LED) shall dispatch patrols to the fire scene to provide traffic control, security of government property, and assist the fire department when requested by the Installation Fire Chief or his authorized representatives.

Chapter 3

FIRE SAFETY DEFICIENCIES

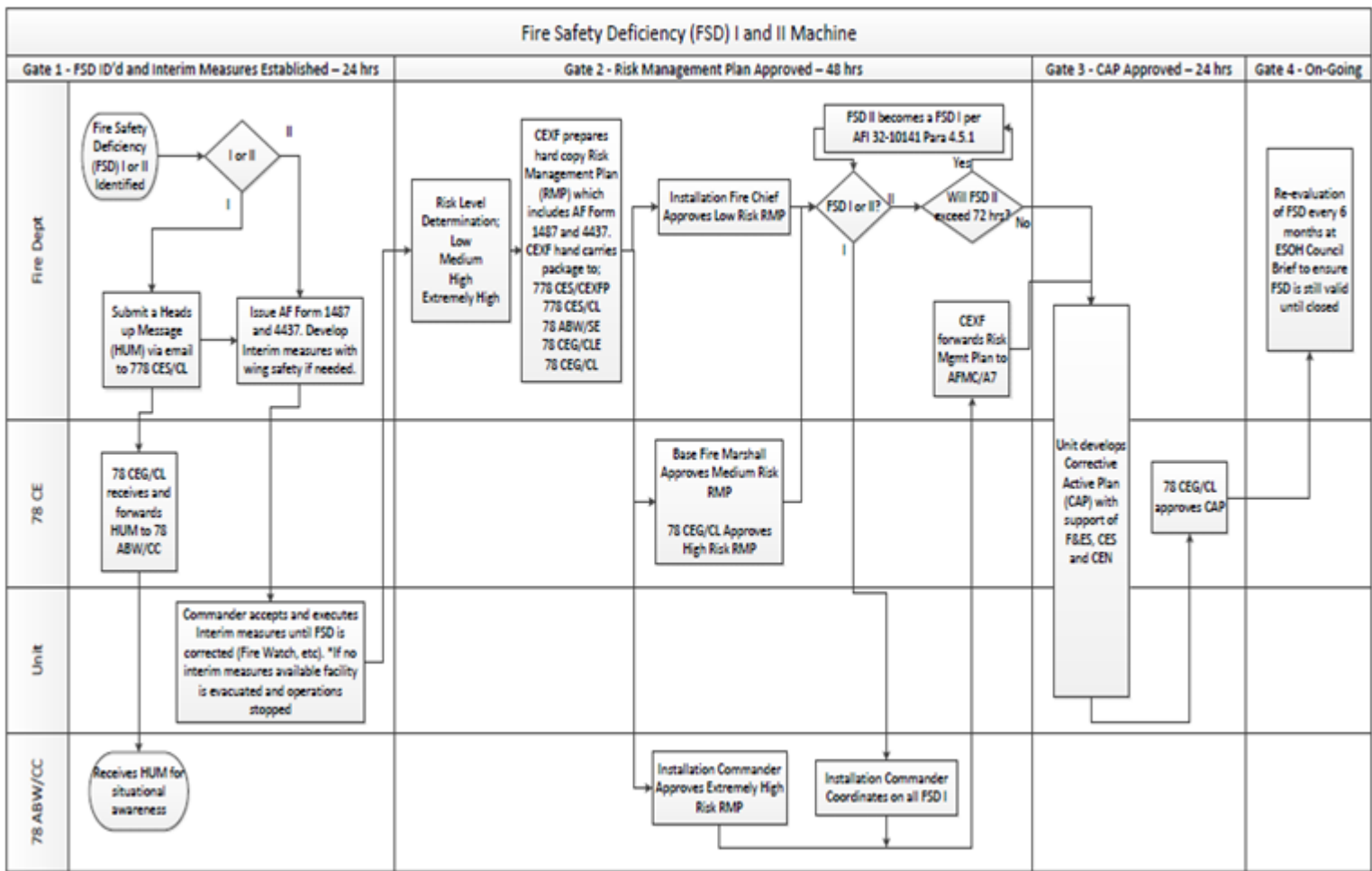
3.1. Fire Safety Deficiency (FSD):

- 3.1.1. A condition that reduces fire safety below an acceptable level, including noncompliance with standards, but by itself cannot cause a fire to occur.
- 3.1.2. FSD I include missing fire protection systems or missing NFPA 101 features in any building or process. Any facility FSD which results from a failure to comply with AFI-32-10141, 3.4.1 is considered an FSD I.
- 3.1.3. FSD II includes deficiencies in existing fire protection systems or features in any building or process not covered by AFI 32-10141, 3.4.1.
- 3.1.4. FSD III. All other FSDs not covered by 3.1.1, 3.1.2 and 3.1.3 are classified FSD IIIs.
- 3.1.5. FSD Code Decision Matrix. [Attachment 4](#) is a decision matrix to classify FSDs for various situations.

3.2. FSD Correction/Mitigation Process:

- 3.2.1. Identify FSD by either F&ES or other entity. Determine FSD as an FSD I, FSD II or FSD III.
- 3.2.2. For an FSD III the F&ES will issue a 1487 (Fire Prevention Visit Report) to the facility manager with instructions on how to correct the fire safety deficiency.
- 3.2.3. For an FSD I or II the F&ES will issue a 1487 (Fire Prevention Visit Report) and provide an Interim Corrective Action Plan (ICAP) to user/owner (only good for 72 hours after occurrence/discovery) of the facility.
- 3.2.4. The ICAP includes Fire Watch Checklist ([Attachment 5](#)) and Fire Safety Deficiency Sign ([Attachment 6](#)) for use in the affected area.
- 3.2.5. Fire and Emergency Services representative, facility manager, and organizational commander/director sign the ICAP. Facility occupants will perform measures stated on ICAP.
- 3.2.6. Record facility outage on the F&ES Fire Protection Systems Impairment Tracker.
- 3.2.7. For an FSD I or FSD II, 778 CES/CEXFP will prepare and coordinate a DRA Deliberate Risk Analysis (AF Form 4437).
- 3.2.8. Affected facility performs actions IAW the established DRA or until the FSD I/II is corrected or waived by higher authority.
- 3.2.9. 778 CES/CEXFP tracks the FSD until closure and presents updates semi-annually at the Environmental, Safety and Occupational Health (ESOH) council meetings.

Figure 3.1. FSD I/II Flow Process.



Chapter 4

EMERGENCY PROCEDURES AND EQUIPMENT

4.1. Procedures in Case of Fire:

- 4.1.1. Remain calm; activate the fire alarm by pulling the nearest pull station.
- 4.1.2. Notify the Fire Department by dialing 911 or 478-222-2900. If you dial 9-1-1 from a cell phone you will reach Houston County Dispatch Center, ensure you tell them you are reporting a fire or emergency on RAFB. Provide the following information to the RAFB Emergency Communications Center (ECC):
 - 4.1.2.1. Building number, building name, or street number.
 - 4.1.2.2. Nature/type of emergency.
 - 4.1.2.3. Your name.
 - 4.1.2.4. Provide call back phone number to dispatcher.
 - 4.1.2.5. Any other pertinent information.
 - 4.1.2.6. Do not hang up until the ECC dispatcher tells you to hang up.
 - 4.1.2.7. After reporting an emergency, direct the emergency vehicles to the fire scene if able.
- 4.1.3. Evacuate all personnel and never re-enter the building once evacuated. The Facility Manager shall have a designated meeting place for accountability.
- 4.1.4. If applicable, use portable fire extinguisher to extinguish a fire only if trained to do so and if the fire is discovered in its early stages. Always have an escape route prior to fighting the fire.

4.2. Driver Operators Responsibilities:

- 4.2.1. All drivers of vehicles noting the approach of responding emergency vehicles, hearing sirens, or observing warning lights, shall pull over to the right or curbside, stop and remain stopped until all emergency vehicles have passed.
- 4.2.2. All spectators or other personnel not involved in emergency operations must stay clear of the scene and not interfere with emergency operations.

4.3. Fire Extinguishers:

- 4.3.1. Supply fire extinguishers as part of all construction projects. Placement of fire extinguishers shall be IAW NFPA 10 and NFPA 101.
- 4.3.2. Facility fire extinguishers, where required, shall have a minimum rating of 4-A:80-B:C.
- 4.3.3. Facility managers and using organizations shall budget for purchase and maintenance of fire extinguishers, and appropriate mounting equipment. All fire extinguishers shall meet the requirements of NFPA 10.

4.3.4. The top of fire extinguishers having a gross weight not exceeding 40 pounds (lbs.) will not be more than five feet above the floor. Fire extinguishers having a gross weight greater than 40 lbs. (except wheeled type) shall be installed so that the top of the extinguisher is not more than three- and one-half feet above the floor. In no case shall the clearance between the extinguisher and the floor be less than four inches.

4.3.4.1. Where fire extinguisher cabinets are not provided, utilize suitable hangers, or supports for the fire extinguishers.

4.3.5. Fire extinguishers shall be distributed throughout the protected area so that they are unobstructed, readily accessible, and located in the normal path of exit from the area.

4.3.6. Fire extinguishers shall be subjected to maintenance not more than one year apart or when specified by a fire inspector.

4.3.7. Visual Inspection. Facility Managers and supervisors at all levels shall ensure a visual inspection is performed and documented monthly for all fire extinguishers under their control.

4.3.7.1. Extinguisher located in a designated place. No obstruction to access or visibility.

4.3.7.2. No obvious physical damage, corrosion, leakage, or clogged nozzle.

4.3.7.3. Safety seals and pins not broken or missing.

4.3.7.4. Ensure gauge is reading in the full zone (green zone).

4.3.8. In large rooms and in certain locations where visual obstructions cannot be completely avoided, provide visible signs to indicate the fire extinguisher location.

4.3.9. Purchase new fire extinguishers in accordance with F&ES Memorandum on Fire Extinguisher Purchase and Maintenance for servicing and annual maintenance.

4.3.10. Facility Managers or their representatives are responsible for the maintenance and upkeep of all facility ABC fire extinguishers. FMs shall bring all facility ABC fire extinguishers to Building 150 (Hydrostatic Shop) for their annual inspections. Call DSN 468-4000 to arrange this.

4.4. Flight Line Extinguishers:

4.4.1. Procure flight line fire extinguishers (150 lb. Halon 1211) for the protection of aircraft and adjacent ground equipment. Flight line extinguishers shall not be located within any facility except for fueled aircraft hangars. Place flight line extinguishers IAW T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding* guidelines. The user or using organizations will be responsible for moving flight line fire extinguishers from established pickup/drop off points to the location requiring the extinguisher.

4.4.2. Do not lay the 150 lb. Halon 1211 fire extinguisher down. Utilize flight line extinguisher from the upright position.

4.4.3. Flight line fire extinguisher maintenance:

4.4.3.1. The using organization is responsible for transporting flight line extinguishers to Bldg 150, the hydrostatic test facility. Service all 150 lb. Halon flight line fire extinguishers annually.

4.5. Tampering with Fire Safety Equipment:

4.5.1. Do not disconnect, pull down, tape or paint over smoke detectors. Only fire department, Civil Engineer or contractor personnel shall reset activated fire alarm systems.

4.5.2. Do not hide or block fire detection systems, pull stations or fire extinguishers at any time.

4.5.3. Do not hang or attach anything from fire detection devices, fire extinguisher or fire suppression systems.

4.5.4. No person shall attempt to initiate the fire alarms, alter, operate, or damage the function of any fire detection/protective system.

4.6. Reports and Records:

4.6.1. The Fire Prevention Section will maintain all fire investigation and inspection reports on file. This information is for official use only.

Chapter 5

GENERAL FIRE SAFETY

5.1. Fire Hydrants:

5.1.1. Do not park vehicles, stage equipment or permanent fixtures within 15 feet of any fire hydrant.

5.1.2. Use fire hydrants for their intended purpose and only operate by authorized personnel.

5.1.3. When no other source of water is available at construction sites and water is required for construction purposes, Civil Engineering utility shop may grant permission to use a hydrant as a source of water.

5.1.3.1. Report any leaking, defective or damaged fire hydrant to Civil Engineer immediately so that proper repairs may start.

5.2. Fire Lanes/Fire Access Ways:

5.2.1. Do not obstruct designated fire lanes and accessibility to the fire lanes.

5.2.2. The fire department will identify prescribed fire lanes within, or exterior to, buildings or structures. It is the FM's responsibility to make sure these lanes are clearly marked and free from objects or illegal parking IAW NFPA 1.

5.2.2.1. Fire department access roads shall have an unobstructed width of not less than 20 feet.

5.2.2.2. Fire department access roads shall have an unobstructed vertical clearance of not less than 13 ft. 6 in.

5.2.2.3. Vertical clearance shall be permitted to be reduced provided such reduction does not impair access by fire apparatus, and approved signs are installed and maintained indicating the established vertical clearance when approved.

5.2.2.4. Increase vertical clearances and widths to accommodate fire apparatus.

5.2.2.5. Design and maintain fire department access roads to support the imposed loads of fire apparatus and provide the access roads with an all-weather driving surface.

5.3. Evacuation Plans:

5.3.1. In large complex facilities, evacuation plans shall be located throughout the facility. For assistance with your evacuation plan, contact the Fire Prevention Section at 468-2145.

5.3.2. Evacuation plans shall include the following:

5.3.2.1. Layout of facility.

5.3.2.2. Location of fire extinguishers and fire alarm manual pull stations.

5.3.2.3. The plan must indicate primary and secondary egress from each specific evacuation point (classroom, office, etc.).

5.3.2.4. Emergency phone numbers.

5.3.2.5. Accountability assembly points.

5.4. Fire/Evacuation Drills:

5.4.1. All fire drills requiring activation of fire alarms shall be coordinated in advance with the Fire Prevention Section.

5.4.2. Conduct emergency egress and relocation drills as specified by the occupancy classification in NFPA 101 using the most current edition.

5.4.3. During a fire evacuation drill, individuals shall continue under drill discipline even after reaching the outside area or place of safe assembly. Supervisors will ensure complete evacuation and accountability of all personnel.

5.4.4. When conducting fire drills, place emphasis on orderly evacuation under proper discipline rather than on speed.

5.4.5. Drills shall include suitable procedures to ensure that all persons in the building or all persons subject to the drill participate.

5.4.6. Conduct fire drills at unexpected times and under varying conditions to simulate the unusual conditions that occur in the case of fire.

5.5. Fire Doors:

5.5.1. Do not alter, obstruct, or modify fire rated/smoke doors. Do not paint over fire labels or remove fire labels from any fire rated assembly.

5.5.2. Do not paint, cover, modify or hang heavy objects from any fire doors or fusible link assemblies.

5.5.3. Doors normally required to be kept closed shall not be secured in the open position at any time and shall be self-closing or automatic-closing IAW NFPA 101.

5.5.4. Inspect and test fire rated roll-up/sliding doors annually by a certified technician. Documentation shall be affixed to the door and maintained on file in the Facility Manager's records

5.6. Fire Protection Equipment:

5.6.1. Only properly authorized personnel shall maintain and test sprinkler systems. Notify the fire department immediately of any test or sprinkler impairment.

5.6.2. Whenever any fire alarm system or sprinkler system is out of service for any reason, notify the fire department and FM. Refer to **Chapter 3** of this RAFBI for specific roles and responsibilities for mitigating fire alarms and sprinkler impairments.

5.6.3. For storage up to 15 ft. in height, keep items at least 18 inches below all sprinkler heads. For storage over 15 ft. in height, keep items at least 36 inches below all sprinkler heads.

5.6.4. All building modification projects in buildings with sprinkler systems shall include provisions for the modification or rearranging of the sprinkler system as necessary for compliance with NFPA 13

5.6.5. Do not paint, cover, hang objects from or obstruct sprinklers, risers, pull stations, fire alarms, fire alarm panels, post indicator valves and any other fire detection devices.

5.6.6. Ensure fire department connections are visible, accessible, couplings or swivels rotate smoothly and are not painted shut. Ensure plugs or caps are in place.

5.6.7. Maintain a three-foot clear space around fire risers, manual pull stations, fire alarm panel, and fire department connections (FSD).

5.7. Smoking:

5.7.1. Smoking is prohibited in all RAFB facilities, including roof assemblies and mechanical rooms. All personnel are subject to the restrictions prescribed in AFI 40-102, *Tobacco Free Living*. Contact the Health and Wellness Center for designating tobacco use areas.

5.7.2. Smoking is prohibited in all areas where explosives, chemicals, flammable or highly combustible materials are stored or handled.

5.7.3. Dispose of smoking materials in approved containers listed by Underwriter Laboratory (UL) or other recognized testing laboratory specifically designed for smoking materials.

5.7.4. For additional guidance, refer to AFMAN 91-203, *Air Force Consolidated Occupational Safety Instruction*.

5.8. Electrical Safety:

5.8.1. The current edition of NFPA 70 shall be the minimum standard for all electrical wiring and equipment. Only qualified electricians shall install, repair, or modify electrical wiring, or any attachments for electrical appliances.

5.8.2. Use only electrical appliances and devices that bear the UL label or those listed by another approved testing agency. Do not use appliances or devices that do not have the UL label or other approved listing. Provide all appliances with an adequate power supply.

5.8.3. All electrical wiring, equipment, and devices shall comply with NFPA 70, Article 500 and 501 in areas where classified hazardous conditions are present.

5.8.4. Label electric switches, circuit breakers, and fuses in power panels correctly to indicate the circuits or devices they control. Do not store any materials beneath or above and provide continuously clear access to all panels. Maintain a clearance of at least three feet in depth in front of electric panels and a minimum of three feet clearance for all electrical equipment serving 600 volts or less.

5.8.5. Do not place combustible shades, decorations, or other materials on or over light bulbs.

5.8.6. Extension cords in industrial settings shall be of sufficient gauge for the applicable use (same rating or higher than the appliance being energized). Refer to AFMAN 91-203 for specific guidance.

5.8.7. Do not hang anything from or attach anything to electrical cords, wiring or conduit.

5.8.8. UL approved power strips with safety fuses are permitted. This is to prevent overloading of circuits. Do not connect power strips in series with any other power strips or extension cords. Do not plug in refrigerators, microwave ovens, space heaters or any appliances into a power strip.

5.8.9. Use one surge protector per outlet.

5.8.10. Electrical cords shall be without splices and shall not be hung over nails, rafters, or in a manner, which would constitute a fire hazard. Do not place electrical cords under rugs, carpets, or other combustible materials. Do not use extension cords in lieu of permanent wiring and do not run cords through walls, ceilings, floors, doorways, windows, or other openings.

5.8.11. Electrical systems for modular office furniture are normally designed to provide power to office equipment, e.g., personal computers, monitors, printers, etc. Refer to 29 CFR 1910, Subpart S, Electrical, for additional guidance. Use of appliances for personal convenience, such as refrigerators, coffee makers, microwave ovens, will be requested through the facility manager prior to use to ensure the electrical system can safely accommodate the additional load. FM shall contact their installation CE for assistance.

5.8.11.1. Keep coffee makers and the area around them free of paper products and other loose combustibles. Follow manufacturer's operating instructions and consult with FM prior to placement of coffee makers. Unplug coffee makers at the end of the day. Note: Coffee makers/machines with integral timers and single serve coffee makers do not need to be unplugged, e.g., Bunn-type coffee brewers and Keurig.

5.9. Cooking Appliances:

5.9.1. Cooking is permitted only in properly equipped locations IAW NFPA 1.

5.9.2. Exhaust systems over cooking surfaces where smoke or grease-laden vapors are produced shall have removable baffle type filters or listed/approved grease extractors. Do not cook unless all filters are in place. IAW NFPA 96 do not use any open flame or appliance that produces grease laden vapors in base facilities not equipped for that type of cooking.

5.9.3. Protect hoods and associated duct systems over commercial type cooking equipment IAW NFPA 96. Service hood and duct systems in accordance with NFPA 96.

5.9.4. Thoroughly clean hood and exhaust ducts serving cooking equipment as determined by the Assistant Chief of Fire Prevention. The FM or supervisor will maintain the cleaning documentations. Contactor will affix cleaning documentation to the side of the unit.

5.9.5. Prior to cleaning, give schedule to the Fire Prevention Section. Upon completion of scheduled cleaning, FM or cleaning contractor will call 222-4951 for an inspection.

5.9.6. Consult NFPA 10 for portable fire extinguishers requirements in commercial cooking.

5.9.7. When hood and duct exhaust fans are inoperative, cooking shall stop immediately until the exhaust fan is operational.

5.9.8. Do not install deep fat fryers closer than 16 inches to cooking equipment with open flame. Provide a metal or metal-clad cover for each deep fat fryer and have them readily available for immediate use in case of fire.

5.10. Heating Appliances:

- 5.10.1. All building heating equipment shall be Underwriters Laboratory (UL) listed or Factory Mutual (FM) approved, or IAW the American Gas Association. Heating equipment shall be installed IAW the manufacturer's instructions and NFPA Standards.
- 5.10.2. Do not use unvented hydrocarbon fueled heating appliances inside buildings.
- 5.10.3. Do not use open flame heating devices in any areas.
- 5.10.4. Unrestricted use of space heaters is not permitted due to energy conservation and electrical circuit capacity concerns. Submit all requests to utilize space heaters through a TRIRIGA Service Request.
- 5.10.5. If permitted, all space heaters must be UL listed or FM approved. Units must have a built-in tilt switch and screen over the heating elements. Space heaters must have an electrical rating of 110 or 120 volts with no more than 550 watts electrical heat rating, be at least 36 inches away from combustible materials, and always attended. Do not plug the portable space heater into an extension cord or multi-outlet strip. Safe and proper use of space heaters will be the responsibility of the users and the Facility Manager.
- 5.10.6. Vent clothes dryers to the exterior of a facility. Keep dryers, lint traps, and vent piping free of lint accumulation.
- 5.10.7. Keep combustible materials a minimum of 3 ft. from all heating appliances.

5.11. Open Fires/Barbecues/Fireworks:

- 5.11.1. RAFB does not permit fireworks. Open fires are permitted IAW 5.11.5 and 5.11.6.
- 5.11.2. Do not burn classified materials. Use classified shredder only. Contact 78ABW/SCOK for more information.
- 5.11.3. Do not use barbecues/deep-fat fryers inside any structure or within 10 ft. of any building, balcony, or overhang. Take special care shall not to place these units near air handling equipment.
 - 5.11.3.1. Upon completion of cooking, quench hot coals with water or cover with a noncombustible cover to prevent sparks or hot coals from being scattered by the wind. All ashes and coals shall be cold safe prior to disposal.
- 5.11.4. Barbecue grills that utilize propane tanks can be stored outside as a connected unit at least 3 ft. from the facility. If the grill is to be stored inside, the grill needs to be cold safe. Disconnect the tank and store the tank outside in a covered secured area.
- 5.11.5. Military Family Housing and FAM Camp occupants; manufacture outdoor fire pits are authorized for use. Ensure that they are at least fifteen feet from any structure. All ashes and coals shall be cold safe prior to disposal.
- 5.11.6. Use of Boys Scout and Gator Air Base fire ring will require a burn permit (AF Form 592) from the fire department. Call 472-4951/222-4951 to request permit the day prior of evolution. Attend fire ring at all time and a water source will be available. Fire ring will be cold safe prior to leaving unattended.

5.11.6.1. No open burning shall be conducted on days where the “Fire Danger” or “Fire Danger Forecast” is high (Class 3-5) IAW the Georgia Forestry Commission. <http://www/gfc.state.ga.us/online-permits/Index.cfm>.

5.12. Decorations:

5.12.1. Furnishings and decorations in building occupancies such as health care, day care, and places of public assembly shall comply with NFPA 701.

5.12.2. Do not burn candles or similar open flame devices in any building, except for family housing. For an exception, see section 8.1.5 of this RAFBI.

5.12.3. Decorations, such as paper, flowers, tinsel, streamers, parachutes, camouflaging, scenery, etc., must have a flame-resistant rating prior to use. Keep decorations to a minimum. Ensure decorations do not interfere with fire protection systems. At no time, shall decorations obscure or block exit or any means of egress from the facility.

5.12.4. Do not place a natural Christmas tree inside any facility on Robins AFB, except in Family Housing.

5.12.5. Artificial Christmas trees must be UL listed or FM approved and shall have a fire resistive rating.

5.13. Parking of Vehicles:

5.13.1. Control parking of vehicles and equipment to ensure free access of emergency response equipment to all sides of buildings.

5.13.2. Do not park vehicles including motorcycles in any building for repairs or storage, except for approved maintenance or storage facilities. Do not park vehicles, including motorcycles, under stairs or within exit discharge leading to a public way.

5.14. Storage and Handling:

5.14.1. Good housekeeping and cleanliness are major factors in preventing fires. Housekeeping activities are the responsibility of the using agency or organization. Always maintain and enforce good housekeeping.

5.14.2. Keep attics and concealed spaces clean. Do not store items in attics except in Military Family Housing.

5.14.3. Steel wool shall be stored within a metal storage container.

5.14.4. Rags and other combustible cleaning textiles shall be stored in proper containers.

5.14.5. Facility Managers shall ensure that ceiling tiles are always in place.

5.15. Storage in Mechanical and Boiler Rooms:

5.15.1. Do not use mechanical, electrical, and boiler rooms for storage.

5.15.2. Keep mechanical, electrical and boiler rooms secure.

5.15.3. Do not place fire extinguishers in mechanical or boiler rooms.

5.16. Garbage:

5.16.1. Dispose of rubbish and scrap materials in properly identified and located non-combustible cans, bins, or receptacles. Keep all work areas reasonably free of the accumulation of combustible materials.

5.16.2. Place dumpster units and other central trash disposal units at least 25 ft. from any building unless barricaded by a noncombustible wall. Keep dumpster lids closed, except when refuse is being loaded into or unloaded out of dumpsters.

5.16.3. Leaves and vegetation will be cleared from under and around buildings (including gazebos). Facility Managers must not allow cuttings to accumulate within six ft. of buildings. Remove all dead vegetation.

5.16.4. Remove cut or uncut weeds, grass, vines, and other vegetation when determined by the fire department to be a fire hazard.

5.16.5. Empty dust collection bags and other waste receptacles at the end of the workday. Keep areas used for packing and crating free of excessive accumulation of combustible materials.

5.17. Vacant Buildings:

5.17.1. Secure vacant buildings against unauthorized trespass.

5.17.2. Maintain electrical power for fire alarm systems and support of sprinkler systems, if so equipped.

5.18. Exits:

5.18.1. Maintain every required exit access, exit, or exit discharge free of all obstructions and impediments in the case of fire or other emergencies. When this requirement cannot be met contact the Fire Prevention Section for mitigation/corrective actions.

5.18.2. Arrange doors and gates (in egress paths) readily opened from the egress side whenever the building is occupied. Locks, if provided, shall not require the use of a key, tool, special knowledge, or effort for operation from the inside of the building.

5.18.3. Do not lock exit doors as to restrict egress, but to prevent entry into a facility.

5.18.4. Arrange exits in all facilities IAW NFPA 101.

5.18.5. Restrictive hardware, such as padlocks and hasps, throw-bolts, and crossbars shall not be installed on any exit door except as permitted by NFPA 101. Provide doors with an alarm device for additional security control measures.

5.18.6. Do not use stairway or stairway enclosures (areas beneath stairways) for storage or for any purpose other than a stairway or means of egress.

5.18.7. Protect stairway enclosures with fire rated self-closing doors. Do not wedge or block these doors in the open position or by any other device, which prevents the doors from closing automatically, unless specifically designed for this purpose.

5.19. Exit Signs/Emergency Lighting:

5.19.1. Continuously illuminate all exit signs IAW ETL 99-4 and NFPA 101 to identify egress routes in all facilities.

5.19.2. The Fire Prevention Section will be the only entity on base to determine if the exit is to be marked as “NO EXIT” or “EXIT BLOCKED”.

5.19.3. All emergency lighting units shall operate fully IAW ETL 99-4 and NFPA 101.

5.20. Means of Locking and Securing Exits:

5.20.1. Restrictive hardware, such as padlocks, hasps, throw-bolts, and crossbars shall not be installed on any exit door except as permitted by NFPA 101. Provide doors with an alarm device for additional control measures.

5.21. Travel Distance Limitations:

5.21.1. Travel distance is the distance that one needs to travel from the most remote place in the facility to an exit. Travel distance varies according to the type of occupancy.

5.21.2. For questions concerning travel distance, contact the Fire Prevention Section at DSN 468-2145.

Chapter 6

HAZARDOUS MATERIALS

6.1. Explosives, Blasting Agents and Pyrotechnics:

6.1.1. An explosive is any substance or article, including a device, which is designed to function by explosion (i.e., an extremely rapid release of gas and heat) or which, by chemical reaction within itself, is able to function in a similar manner even if not designed to function by explosion.

6.1.2. Explosives, blasting agents and pyrotechnics will be stored, handled, and used IAW NFPA 495, Explosive Materials Code, and AFMAN 91-201 Explosives Safety Standards.

6.1.3. Do not transport explosives, blasting agents or pyrotechnics by any person or agency on the installation without notifying the base Fire and Emergency Services at COMM 478-222-4951 or DSN 472-4951. All movements or relocation of explosives (except 1.4) are included in this requirement.

6.1.4. Do not sell, possess, use, store, or transport fireworks on RAFB unless approved in writing by the Installation Commander.

6.1.5. Post proper fire symbols on all buildings, rooms or areas storing explosives as required by AFMAN 91-201 and the explosives license for that area. Personnel in charge of explosives must promptly notify the base fire department at DSN 472-4951, update the automated Fire Symbol Tracking System (FSTS) in GeoBase each time there is a change in the explosives fire, or hazard symbols.

6.1.6. Conduct fire drills within explosive storage areas at intervals not to exceed six months. Coordinate fire drills through the base Fire and Emergency Services training section at DSN 468-1800, the 78 Weapons Safety office at DSN 472-7670, and the unit commander of the affected area. Ensure all involved are aware that an exercise, not an actual fire, is in progress.

6.1.7. Keep all grounds surrounding storage areas clear of excess vegetation by establishing appropriate mowing and weed control. To eliminate a substantial fire hazard, remove freshly cut or dead vegetation from earth-covered igloos after mowing. Coordinate with grounds maintenance contractor Quality Assurance Evaluator, 78 CES/CEOS to ensure proper vegetation control,

6.1.8. Do not conduct controlled burning within 200 ft. of any explosive locations. The IFC will coordinate and provide oversight for controlled burning of vegetation should the need arise. Close windows, doors and ventilators to facilities containing explosives within 600 feet of burning operations.

6.1.9. Do not use flammable liquids for cleaning purposes within an explosives area or near explosives, except as authorized. Confine authorized use to a specific designated work area. In-use stocks may not exceed a 1-day supply. Store materials in approved/labeled/listed safety containers only.

6.1.10. Store only small stocks of flammable materials, such as paints and solvents required to support explosives maintenance. When not in use, store flammable materials in an exterior location. Use flammable storage cabinets or lockers.

6.1.11. Do not park vehicles, other than those being loaded or unloaded, closer than 25 ft. from any explosive facility or storage area.

6.1.12. Use the following guidance when operating support equipment (not including vehicles) powered by internal combustion engines.

6.1.12.1. Locate equipment 50 ft. or more from explosives.

6.1.12.2. Place aircraft ground support equipment as far away as the length of the cord will allow.

6.1.12.3. If adequate ventilation and a fire-resistant dividing wall is in place, equipment may be closer. Equipment designed into and installed as part of an operating or storage facility is exempt.

6.1.12.4. Do not refuel equipment within 100 ft. of explosive.

6.1.12.5. Vehicles transporting explosives shall not be refueled with gasoline while explosives are in the vehicle, except in an emergency, then only with the engine stopped, all lights and radios off, and static grounding devices properly connected.

6.1.13. Stacking Combustible Material see AFMAN 91-201.

6.1.14. Fire Extinguishers.

6.1.14.1. Unless otherwise directed by the base fire department, provide a minimum of two serviceable extinguishers suitable for the hazards involved.

6.1.14.2. The types of extinguishers required will be established on the explosive license in local operating instructions for the specified area or as outlined in AFMAN 91-201 for any explosive operating or storage location.

6.1.14.3. Ensure one fire extinguisher is available for each item of powered handling equipment used to transport explosives.

6.1.14.4. Provide each explosives-laden vehicle used for transport with at least two portable 2A:10BC (5 lbs. Dry Chemical) rated extinguishers.

6.1.14.5. Provide flight line fire extinguishers for each aircraft according to munitions manuals and **Chapter 4, paragraph 4.4** of this document.

6.1.14.6. Inspect fire extinguishers annually. For guidance on maintenance and inspection, see **Chapter 4, Fire Extinguishers**, of this RAFBI.

6.1.15. Refer to AFMAN 91-201 for Emergency Withdrawal Distances for Nonessential Personnel, Firefighting Guidance Symbols, and Chemical Hazard Symbols.

6.1.16. Use Department of Transportation placards for the transportation of explosives as directed in AFMAN 91-201, and Code of Federal Regulations (CFR) Title 49.

6.2. Flammable and Combustible Liquids:

6.2.1. Flammable and combustible liquids dispensing, storage and use will be IAW NFPA 30, *Flammable and Combustible Liquids Code*, AFMAN 91-203, *Air Force Consolidated Occupational Safety Instruction*, 29 CFR 1910.106, *OSHA's Flammable and Combustible Liquids Regulation*.

6.2.1.1. Flammable liquids are any liquid with a flash point below 100° Fahrenheit. Examples include gasoline, alcohol, naphtha, lacquer paints and thinners.

6.2.1.2. Combustible liquids are any liquid having a flashpoint greater than 100° Fahrenheit. Combustible liquids include kerosene, mineral spirits, #2 diesel fuel and JP-8.

8. Flammable and combustible liquids are divided into classes, refer to **Table 6.1** below.

Table 6.1. Flammable and Combustible Classes.

CLASS	FLASH POINT	BOILING POINT
IA	<73°F (22.8°C)	<100°F (37.8°C)
IB	<73°F (22.8°C)	=/>100°F (37.8°C)
IC	=/>73°F (22.8°C) but <100°F (37.8°C)	N/A
II	=/>100°F (37.8°C) but <140°F (60°C)	N/A
IIIA	=/>140°F (60°C) but <200° F (93°C)	N/A
IIIB*	=/>200°F (93°C)	N/A
*This class is not included in AFMAN 91-203		

6.2.1.3. Authorized storage areas (i.e., Exterior Hazardous Waste Accumulation Site (EHWAS)) for flammable and combustible liquids will be located not less than 50 ft. from other structures, except as authorized by the base Fire and Emergency Services.

6.2.1.4. When not in use, all flammable or combustible liquid containers (including safety cans or pots) will be stored in approved flammable storage cabinets or areas.

6.2.2. Where flammable cabinets are utilized, they will conform to the following requirements:

6.2.2.1. Cabinets must be constructed IAW AFMAN 91-203 and NFPA 30. Cabinets must have an operational, 3-point lock system on doors (doors may be self-closing but is not required).

6.2.2.2. Cabinets must have a 2-inch catch basin in the bottom for spill containment. NOTE: Materials may be stored in this basin. However, prudence must be utilized as to not defeat the purpose of the storage basin.

6.2.2.3. Cabinet must have a visible, contrasting color, exterior label that states: **FLAMMABLE - KEEP FIRE AWAY.**

6.2.2.4. No open containers are allowed in storage cabinets. Flammable/combustible liquids must be in approved, properly labeled containers, with lids. Cabinets must have 1 1/2-inch air space between exterior/interior walls and cabinets.

6.2.2.5. No more than a total of 120 gallons of Class I, II, and III flammable/combustible liquids shall be stored in a single cabinet. Of the 120 total gallons, no more than 60 gallons of Class I and II flammable or combustible liquids may be stored in a single cabinet.

6.2.2.6. Not more than three such cabinets may be in a single fire area. Exception is in certain industrial areas. NOTE: For definitions of a fire area, refer to AFMAN 91-203, Chapter 22.

6.2.2.7. Additional cabinets may be in the same fire area of an individual area if the additional cabinet or group of more than three (120 gallons each) cabinets are separated from other cabinets or group of cabinets by at least 100 feet.

6.2.2.8. The total aggregate volume of Class I, Class II and Class IIIA liquids in a group of storage cabinets shall not exceed maximum allowable quantity (MAQ) of flammable and combustible liquids per control area based on the occupancy where the cabinets are located.

6.2.2.9. The MAQs of liquids allowed in each control area shall not exceed the amounts specified in NFPA 30. If a unit requires more than three (3) storage cabinets, it must coordinate with the Fire Prevention Section.

6.2.2.10. The limit of three (3) cabinets in a single area can be increased where smaller cabinets are used. However, the maximum amount of flammable storage cannot exceed that which could be stored in three 120-gallon capacity cabinets.

6.2.3. Incidental Storage of Flammable Liquids in Industrial Areas. Incidental storage shall be authorized only after the following requirements are met:

6.2.3.1. Incidental storage shall be in industrial areas only.

6.2.3.2. Storage shall be in metal cabinets stenciled, FLAMMABLE- KEEP FIRE AWAY (metal wall lockers meet this requirements).

6.2.3.3. Storage shall be limited to 1-gallon of Class I or 10 gallons of Class II and Class III liquids, not to exceed 10 gallons total per cabinet in closed containers.

6.2.3.4. Storage shall be limited to a 5-day supply of flammables in a metal cabinet, and in closed containers not to exceed limits specified above. Each work center shall be limited to one cabinet. Consult with the installation Fire Prevention Section to establish incidental storage areas in industrial shops.

6.2.3.5. HAZMAT Pharmacies and Other Areas that may Exceed MAQs Limit. In HAZMAT Pharmacies, buildings and/or portions of buildings where liquids are stored that may exceed MAQs per control area shall be classified as High-Hazard Level 3, as established by NFPA 30.

6.2.3.6. Do not place oxidizers, corrosives, or other incompatible substances, which may adversely react with the flammable/combustible liquids in the same cabinet. If storage of other materials is required, see the appropriate section of this RAFBI or AFMAN 91-203 that addresses the class of the material in question.

6.2.3.7. Flammable storage cabinets must not be located next to exit doors, nor physically obstruct a means of egress from the building or area. Additionally, do not place cabinets under stairways or near any other egress routes.

6.2.3.8. If the cabinet is located indoors, the ventilation caps/bungs must be in place. If the cabinet must be vented, venting must be performed through piping to the outdoors. Remove the vent caps/bungs for outdoor storage cabinets.

6.2.3.9. Rags and other combustible materials will not be stored inside flammable storage cabinets. Unopened shipping boxes/containers and protective packaging from the manufacturers that contain flammable liquids are permitted. However, once the box/container is opened and one internal container is removed, all containers shall be removed, and the outside box shall be discarded. Boxes/containers opened for labeling purposes may be stored only if the container is full and complete. Protective over packing that secures containers from breaking, tipping over or spilling shall be permitted until empty of all containers.

6.2.3.10. Grounding of flammable storage cabinets is not required.

6.2.4. Flammable/combustible liquids will not be stored in any public assembly facility, club, barracks, unaccompanied officers' quarters, office areas, desks, unattended workbenches, buildings that are used as sleeping quarters and other similar type locations.

6.2.5. Gasoline or other flammable/combustible liquid containers, utilized or sold on this installation will be UL or like agency tested/listed, having a tight closing screw or spring type lid, and fitted with a suitable pouring spout. Do not use glass or plastic containers for storing, dispensing or carrying flammable liquids unless they are approved for this purpose.

6.2.6. Move leaking flammable/combustible liquid containers to a safe location and transfer the contents to a serviceable container. Dispose of leaking containers. Contact Environmental Management Waste Disposal section at DSN 468-1176 for guidance on container disposal.

6.2.7. Do not dispose flammable and combustible liquids in sewers, canals, drainage systems or any other restricted or unauthorized areas.

6.2.8. Do not use gasoline or other flammable liquids for cleaning equipment parts, refinishing floors, desks, or other furniture. Only use non-flammable cleaners or solvents and/or water based solvent detergents.

6.2.9. Dip tanks, vats, wash tanks, bench washing vats or parts washers and other similar containers will be of metal construction, equipped with tight fitting, noncombustible covers, equipped with fusible links, which will close the covers automatically in the event of fire. Close lids when not in use.

6.2.10. Strictly enforce the "No Smoking" in these areas.

6.2.11. Store oily rags and waste in closed, metal, or rated plastic. Properly label containers with tight fitting lids and empty at least daily or as needed (spring loaded or “easy open” lids on 55-gallon drums used for rag containers, as satellite accumulation points are permitted).

6.2.12. Prior to storage in supply rooms, drain gasoline or other fuels from fuel tanks or immersion heaters, lawn mowers, kitchen ranges, gas lanterns and other like equipment. Close filler caps on fuel tanks tightly.

6.2.13. Gravity discharge of any flammable/combustible liquid from tanks, drums, or containers other than UL listed safety cans is prohibited within structures, unless the area is approved, designed, and designated for indoor dispensing.

6.2.14. Flammable/combustible liquids will be drawn from or dispensed into tanks or containers within a building or non-dispensing designated area with the drum in an upright position, using approved and listed, manually, pneumatically, or electrically operated pumps.

6.2.15. Tanks, hoses, and containers will be bonded and grounded while flammable liquids are being poured or dispensed to prevent static electricity discharge. Stored flammable/combustible liquids in plastic drums shall be on heavy plastic or nylon type pallets. Do not use wood pallets.

6.2.16. Transfer of flammable liquids or purging of tanks or containers by compressed air or gases is prohibited (other than is specified in T.O.s or written in procedural guides).

6.2.17. The storage of fuel in containers, power mowers, outboard motors, and similar equipment with fuel tanks shall be in an outside building under the following guidelines:

6.2.17.1. The total amount in the container or equipment will not exceed 25 gallons (except equipment, which has an integral gasoline tank).

6.2.17.2. Gasoline will only be stored in a safety can listed by a nationally recognized testing laboratory.

6.2.17.3. No refueling will be conducted inside or within 10 ft. of any building, including garages, basements, or attached right of ways.

6.2.18. Refer to AFMAN 91-203 for outside buildings used to store flammable or combustible liquids

6.2.18.1. Outside storage of flammable liquid lockers:

6.2.18.1.1. Lockers will not exceed 1500 square ft. gross floor area. Do not stack lockers vertically.

6.2.18.1.2. Lockers shall include a spill containment system to prevent the flow of liquids from the structure under emergency conditions. The containment system shall have sufficient capacity to contain 10 percent of the volume of containers allowed or the volume of the largest container, whichever is greater.

6.2.18.2. Designated sites:

6.2.18.2.1. Place lockers at least five ft. apart, and no less than ten ft. from any building or public way/property line.

6.2.18.2.2. The approved designated storage site shall be protected from tampering or trespassing when the area is accessible to the public.

6.2.18.2.3. No other flammable/combustible material storage shall be within the designated site.

6.2.19. Fire prevention in flammable storage areas:

6.2.19.1. At least one serviceable portable fire extinguisher rated not less than 4A: 80 B:C (10 lbs. Dry Chemical) will be located within 50 ft. of any flammable liquid storage area located outside of a storage room, but inside a building.

6.2.19.2. Fire extinguishing systems will be via sprinkler, water spray, or other USAF approved systems. No open flames or smoking within 50 ft. of flammable or combustible liquid storage areas.

6.2.19.3. Water reactive materials will not be stored in the same room with flammable or combustible liquids. Exception: Small quantities may be stored in laboratories IAW AFMAN 91-203.

6.2.19.4. Containers and portable tanks used for Class I liquids will be electrically bonded and grounded during transfer of liquids.

6.2.19.5. Protect liquid and aerosol containers from heat sources since heat will cause the contents to expand and pressurize the containers. At elevated temperatures, container may rupture.

6.2.20. Storage and use of flammable and combustible liquids in specific applications:

6.2.20.1. For laboratories, base exchanges, commissaries, associated retail stores, and small gasoline powered equipment consult with AFMAN 91-203.

6.3. Flammable Solid:

6.3.1. Flammable solids are a solid other than a blasting agent or explosive as defined in 29 CFR 1910.109(a) that is liable to cause a fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard.

6.3.2. Flammable solids such as aluminum, magnesium, lithium, beryllium, titanium, zirconium, matches and sodium will be stored, machined, fabricated, heat treated, collected for scrap and disposed of IAW NFPA 484, *Standard for Combustible Metals* and this base instruction.

6.3.3. Storage of Solid Flammable Scrap:

6.3.3.1. Solid flammable solid scrap, such as clippings and castings, shall be stored in non-combustible bins and containers pending salvage.

6.3.3.2. Oily rags, packing materials, and similar combustibles shall not be permitted in storage bins or areas storing flammable solid scrap.

6.3.4. Storage of Flammable Solid Powder:

6.3.4.1. Building used to store flammable solid powders shall be of non-combustible single-story construction and protected with automatic sprinkler system.

6.3.4.2. Flammable solid powders shall be stored in steel drums or other closed containers. Keep containers tightly sealed and in dry locations.

6.3.4.3. Check flammable solid powder storage areas for water leakage. If a water leak is found, submit an emergency work order to correct the problem. Move the materials as far as possible from the source of the leak.

6.3.4.4. Consider areas routinely used for the storage of flammable solid powders as Class II, Group E, IAW NFPA 70, and the National Electric Code. Suitable fire extinguishment material shall be readily available in these locations.

6.3.4.5. The maximum height for drums containing flammable solid powder shall not exceed 18 ft. Stacked drums for storage in such a manner to ensure stability and to ensure drums do not topple over. Not stacking the drums is the safest manner of storage.

6.3.5. Storage of Finished Products:

6.3.5.1. This section shall apply to the storage of flammable solids, in warehouses, wholesale facilities, and retail outlets in the form of finished parts in which flammable solids make up the major portion of the articles on a volumetric basis.

6.3.5.2. Storage in quantities greater than 50 cubic ft. shall be separated from other storage of materials that are either combustible or in combustible containers by aisles with a minimum width equal to the height of the piles of flammable solid products.

6.3.5.3. Flammable solid products stored in quantities greater than 1000 cubic ft. shall be separated into piles each no larger than 1000 cubic ft., with the minimum aisle width equal to the height of the piles.

6.3.5.4. Where storage in quantities greater than 1000 cubic ft. is contained in a building of combustible construction, or the flammable solid products are packed in combustible crates or cartons, or there is other combustible storage within 30 ft. of the flammable solid, the storage area shall be protected by automatic sprinklers.

6.3.6. Portable Fire Extinguishers for use on Flammable Solids:

6.3.6.1. Provide portable fire extinguishers IAW NFPA 10. Water based or CO2 extinguishers shall not be provided in areas containing flammable solids in fines, chips, pigs, ingots, billets, clippings, castings, or powders.

6.3.6.2. If portable extinguishers are to be used on flammable solid fires, they shall be approved for use on Class D fires. The owner of the process, based on the flammable solid being stored, will select the proper agent.

6.3.6.3. Dry sodium chloride, Lith-X, Met-L-X, or other dry powders or compounds suitable for extinguishment or containment of flammable solid fires, may be substituted for Class D fire extinguishers. These alternative agents shall be stored in a manner that ensures the agent's effectiveness.

6.3.6.4. Keep shovels or scoops readily available adjacent to the containers. Clearly identify extinguishing agent storage areas.

6.3.6.5. When a fire occurs in processing equipment, material fed to the equipment shall be stopped. The equipment shall be kept in operation unless continued operation will spread the fire.

6.3.7. Fire Prevention and Fire Protection Measures Concerning Flammable Solids:

6.3.7.1. The provisions of this section shall apply to all flammable solid production processes, handling, and storage operations. Buildings shall comply with the applicable provisions of NFPA 101.

6.3.7.2. Hot work permits shall be required in designated areas that contain exposed flammable solid fines or dust where hot work is conducted. All hot work areas shall be cleaned of flammable solid fines or dust before hot work is performed.

6.3.7.3. Good housekeeping practices shall be maintained. Supplies shall be stored in an orderly manner with properly maintained aisles to permit regular inspection and segregation of incompatible materials. Supplies of materials in flammable solid processing areas shall be limited to amounts necessary for normal operation.

6.3.7.4. Cleaning of flammable solid dust and fines from buildings and machinery shall be carried out as frequently. Remove dust and fines to a safe storage or disposal area. Consideration shall be given to the potential ignition sources associated with the operation of equipment during the cleaning operation.

6.3.7.5. Conduct regular inspections to detect the accumulation of excessive flammable solid dust, chips, or fines on any portions of buildings or machinery not regularly cleaned in daily operations. Keep records of these inspections and file them in the FM's fire prevention folder.

6.3.7.6. Do not discard combustible materials in containers used for the collection of dust, sward, or turnings. Oil and other liquid spills shall be cleaned up immediately.

6.3.7.7. Boring, crushing, blasting, and drying equipment shall be electrically bonded and grounded to prevent accumulation of static electricity.

6.3.7.8. All electrical equipment and wiring in flammable solid production, processing, handling, and storage facilities shall comply with NFPA 70.

6.3.7.9. Use non-sparking tools and utensils when handling flammable solid powders. All metal objects or equipment used in flammable solid operations shall be electrically bonded and grounded to prevent accumulation of static electricity.

6.3.7.10. Where flammable solids are collected or stored in containers, material-handling equipment with sufficient capability to remove any container from the immediate area in the case of an emergency shall be readily available.

6.3.7.11. Keep areas used for torch cutting free of combustibles.

6.4. Compressed Gases and Cryogenic Liquids:

6.4.1. Compressed gas is any material or mixture in a container with an absolute pressure exceeding 40 psi at 70° F or regardless of pressure at 70° F, an absolute pressure exceeding 104 psi at 130° F or a liquid having a vapor pressure exceeding 40 psi at 100° F as determined by ASTM D-323-72. A cryogenic liquid is a liquid having a boiling point lower than -150° F at 14.7 psia (an absolute pressure of 101 kPa).

6.4.2. Compressed gas and cryogenic liquid cylinders and pressurized storage tanks will be located, stored, utilized, inspected and transported IAW NFPA 55, *Compressed Gases and Cryogenic Fluid Code*, NFPA 51, *Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting and Allied Processes*, NFPA 58, *Liquefied Petroleum Gas Code*. 49 CFR parts 100 to 179, *Code of Federal Regulations*, 29 CFR 1910.101, 102, 103, 104, 105, 111, Compressed Gas Association Pamphlets C-6 and C-8 and this RAFBI.

6.4.3. The Department of Transportation (DOT) divides compressed gases into three subclasses.

6.4.3.1. Division 2.1 - Flammable Gases.

6.4.3.2. Division 2.2 - Non-Flammable Gases.

6.4.3.3. Division 2.3 - Gases which are toxic or poisonous by inhalation.

6.4.4. Non-liquefied compressed gases liquefied compressed gases; compressed gases in solution and cryogenic liquids will all fall within one of the three above sub-classes.

6.4.5. General compressed gas cylinder storage and use requirements:

6.4.5.1. Outdoor storage areas shall have a minimum of 25 percent of the perimeter open to the atmosphere. This open space shall be permitted to incorporate chain link fence, lattice construction, open block or similar materials for the full height and width of the opening.

6.4.5.1.1. Storage areas shall be kept clear of dry vegetation and combustible materials for a minimum distance of 15 ft. Cylinders stored outside shall not be placed on the ground (earth) or on surfaces where water can accumulate.

6.4.5.1.2. Storage areas shall be provided with physical protection from vehicle damage. Storage areas shall be permitted to be covered with canopies of noncombustible construction.

6.4.5.1.3. Cylinders stored outdoors will conform to the separation distances specified in NFPA 55 Chapter 7. Storage spaces must be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons.

6.4.5.1.4. Locations used for storing/using cylinders shall be in a safe condition to the extent that it can be determined by visual inspection. Visual and other inspections shall be conducted as prescribed in the Hazardous Materials Regulations of the Department of Transportation (49 CFR, parts 171-179 and 14 CFR, part 103). Visual and other inspections shall be conducted IAW Compressed Gas Association Pamphlets where those regulations are not applicable.

6.4.5.1.5. In-plant handling, storage, and utilization of all compressed gases in cylinders, portable tanks, rail tank cars or motor vehicle cargo tanks shall be IAW Compressed Gas Association Pamphlet P-1-1965.

6.4.5.1.5.1. All quantities of compressed and liquefied gases in separate storage areas in industrial, mercantile and/or storage facilities are included in the requirements of this instruction.

6.4.5.1.6. When two or more compressed gases are stored in a gas cabinet, the gases shall be compatible. Spill control, drainage, and secondary containment shall not be required for the storage of compressed gases.

6.4.5.1.7. Floors of storage areas shall be of noncombustible or limited-combustible construction. Shelves used for storage of cylinders shall be of noncombustible construction and designed to support the weight of the cylinders stored.

6.4.5.1.8. Separation from incompatible or combustible materials, storage of compressed gases shall be:

6.4.5.1.8.1. Segregated from any incompatible or combustible materials storage by a minimum of 20 ft., IAW NFPA 55 Chapter 7 or isolated from any incompatible or combustible materials storage by a barrier of noncombustible material at least five ft. high, having a minimum fire resistance rating of 1/2 hour.

6.4.6. Flammable Gases: The following general requirements for storage of flammable gases shall apply:

6.4.6.1. The storage location of non-liquefied flammable gas cylinders in buildings shall be determined by the total volume of flammable gas and shall be in the order of preference as indicated by NFPA 55.

6.4.6.2. Storage of compressed flammable gases in other than industrial/mercantile and storage occupancies shall comply with NFPA 55 Chapter 6. Storage of compressed flammable gases in mercantile and business occupancies shall be limited to 400 SCF. Storage of liquefied flammable gases in all occupancies shall be IAW NFPA 55, *Compressed Gas and Cryogenic Fluids Code*, Chapter 7 and NFPA 58, *Standard for Storage and Handling of Liquefied Petroleum Gases*.

6.4.6.3. Electrical equipment shall conform to the provisions of NFPA 70, National Electric Code, and Article 501 for Class I, Division 2 locations.

6.4.6.4. Smoking and open flames shall not be permitted in storage areas or within 20 ft. of storage areas.

6.4.6.5. Gas cylinders shall be stored a minimum distance of 20 ft. from storage of flammable and combustible liquids and solids.

6.4.6.6. Liquefied flammable gas cylinders shall be stored in the upright position or such that the pressure relief valve is in direct communication with the vapor space of the cylinder.

6.4.6.7. Storage of multiple groups of cylinders of flammable gases, each 2500 SCF or less, in one fire area shall be permitted where the groups are separated by a minimum distance of 100 ft.

6.4.6.8. Different flammable gases shall be permitted to be stored together in a group.

6.4.6.9. The following requirements shall apply to the storage of flammable gases between 2501 SCF and 5000 SCF in any fire area:

6.4.6.9.1. Gas cylinders shall be stored in a room or enclosure with a minimum one-hour fire resistance rating.

6.4.6.9.2. Multiple groups of cylinders within one sprinkler fire area shall be permitted where a minimum distance of 100 ft. separates the groups.

6.4.6.10. Gas cylinder storage rooms shall be provided with natural or mechanical ventilation designed to provide a minimum of one cubic feet per-minute (cfm) per square feet (0.3 m³/m²) of floor area. Ventilation systems shall discharge a minimum of 50 ft. from the intakes of air handling systems, air conditioning equipment and air compressors.

6.4.6.11. The following requirements shall apply to the storage of greater than 5000 SCF of flammable gases in any location: Gas cylinders shall be stored in a room or enclosure with a minimum fire resistance of two hours. At least one wall of the room shall be an exterior building wall.

6.4.6.11.1. Gas cylinder storage rooms shall be provided with a sprinkler system design IAW NFPA 13, *Standard for the Installation of Sprinkler Systems*. Ventilation systems shall be discharged a minimum of 50 ft. from intakes of air handling systems, air conditioning equipment and air compressors.

6.4.7. Toxic Gases: In addition to the requirements of section 6.4.5. of this RAFBI, the following specific requirements for storage of toxic gases shall apply:

6.4.7.1. Indoor storage areas used to store toxic gases shall be equipped with a continuous gas detection system that provides an alarm to warn of the presence of toxic gases in levels that present a hazard to life.

6.4.7.2. Exhaust ventilation systems shall be installed in all indoor areas used for toxic gases.

6.4.7.3. Exhaust ventilation systems for indoor toxic gas storage shall comply with the following, except where natural ventilation prevents toxic accumulation of gases being stored:

6.4.7.3.1. Where gas cabinets are not used, mechanical ventilation shall be operated continuously at a rate of not less than one cfm per square feet of floor area of the storage area.

6.4.7.3.2. A manual ventilation shutoff switch shall be outside the room adjacent to the access door into the room. The switch shall be labeled "Ventilation System Emergency Shut-off."

6.4.7.3.3. Exhaust ventilation shall not be re-circulated within a room or building. Ventilation shall not be required to be operated when no toxic gas is stored.

6.4.7.4. Outdoor storage of toxic gases shall be located 75 ft. from a line of property that may be built upon public ways. Such storage areas shall be secured from unauthorized access.

6.4.7.5. Cylinders of toxic gases while in storage and while being handled shall have valve protection devices or caps and gas-tight valve outlet caps or plugs in place. This shall apply to all cylinders whether full, partially full, or empty.

6.4.7.6. Health 4 Storage Requirements. Locations storing toxic gases with an NFPA 704 health hazard rating of 4 shall meet the following requirements.

6.4.7.6.1. Storage within buildings shall be in gas cabinets or exhausted enclosures having positive exhaust ventilation.

6.4.7.6.2. When storage is not in buildings, at least one gas cabinet or exhausted enclosure shall be provided for the handling of leaking cylinders. The cabinet or enclosure shall be located within or adjacent to the outdoor storage area.

6.4.7.6.3. Gas cabinets or exhausted enclosures shall be connected to treatment systems.

6.4.7.7. Health 3 Storage Requirements. Locations storing toxic gases with an NFPA 704 health hazard rating of 3 shall have equipment to prevent leaking cylinders from escaping into the building or atmosphere on site or readily available.

6.4.8. Hazard Identification:

6.4.8.1. Hazard identification signs shall be placed at all entrances to locations where compressed gases are produced, stored, used, or handled.

6.4.8.2. Signs shall not be obscured or removed. Signs shall be in English as a primary language or in symbols.

6.4.8.3. Signs prohibiting smoking or open flames within 50 ft. shall be provided in areas where toxic, flammable, oxidizing or pyrophoric gases are produced, handled, stored, or used.

6.4.8.4. Individual compressed gas cylinders shall be marked or labeled in accordance with DOT and OSHA/AF requirements.

6.4.8.5. The labels applied by the gas manufacturer or base hydrostatic testing shop to identify the compressed or liquefied gas cylinder contents shall not be altered or removed by the user except for the marking of empty cylinders by tearing one of the attached tags in half.

6.4.9. Compressed Gas Cylinders, General Requirements:

6.4.9.1. Cylinders shall be designed, fabricated, tested and marked (stamped) IAW regulations of the US (DOT), Transport Canada (TC) or the Rules for the Construction of Unfired Pressure Vessels, Section VIII, The American Society of Mechanical Engineers (ASME), *Boiler & Pressure Vessel Code*.

6.4.9.2. Defective cylinders shall be returned to the supplier. Suppliers shall repair the cylinder and remove it from service or dispose of it in an approved manner.

6.4.9.3. Compressed gas cylinders having residual products shall be treated as full except when being examined, serviced, or refilled by a gas manufacturer or distributor.

6.4.9.4. Where compressed gas cylinders are designed to accept valve protection caps, the user shall always keep such caps on compressed gas cylinders except when being filled or connected for use.

6.4.9.5. Where gas tight valve outlet caps are provided, the user shall always keep such devices on the valve outlet except when being filled or connected for use.

6.4.9.6. Compressed or liquefied gas cylinders in use or in storage shall be secured in an appropriate manner to prevent them from falling or being knocked over.

6.4.9.7. Compressed gas cylinders shall be permitted to be stored and used in the horizontal position. All liquefied gas cylinders or gas in solution cylinders (acetylene) shall only be stored and used in the upright position (excluding Liquid Proteome Gas powered forklifts).

6.4.9.8. Compressed gas cylinders exposed to fire shall not be used until they are re-qualified IAW the pressure vessel code under which they were manufactured.

6.4.9.9. Compressed gas cylinders shall not be placed where they can become a part of an electrical circuit.

6.4.9.10. Compressed gas pesticides/poisons (not including aerosols) shall be stored away from heat (steam pipes, heaters, direct sun) in a covered area outdoors.

6.4.9.11. Cylinders shall be tightly closed, provided with a safety cap when not in use (whether full or empty), and provided with labeling IAW DOT labeling requirements which indicates whether the individual container is full or empty.

6.4.9.12. Cylinders shall be separated by type, contents, and full or empty status. Compressed gas pesticide/poisons shall be separated from other compressed gases IAW NFPA 55 Chapter 7.

6.4.10. Safety Precautions:

6.4.10.1. Smoking or open flames shall not be permitted within 50 ft. of any area where flammable, oxidizing, pyrophoric or toxic compressed gases are stored.

6.4.10.2. Where flammable gas may be ignited by static electricity. Means shall be provided to prevent a static discharge.

6.4.10.3. Electrical equipment and wiring in areas where flammable gases are produced, stored, handled, or used shall be installed IAW NFPA 70, *National Electrical Code*.

6.4.10.4. An automatic fire extinguishing system IAW NFPA 13, Standard for the Installation of Sprinkler Systems, or NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection shall protect separate rooms and areas of buildings for use or storage of toxic or pyrophoric gases.

6.4.10.4.1. A fire alarm activation station or approved emergency signal device shall be installed adjacent to exit doors of buildings and outside of rooms or areas where the toxic, pyrophoric, or flammable gases are used or stored. Activation of the system shall sound a local alarm.

6.4.10.5. Where mechanical ventilation, treatment systems, temperature control, manual alarm, detection or other electrically operated systems are required, such systems shall be connected to a standby source of power to automatically supply power in the event of loss of power from the primary source.

6.5. Corrosives and Oxidizers:

6.5.1. Corrosive material is a liquid or solid that causes full thickness destruction of human skin at the site of contact within an exposure period of four hours, or a liquid that has a severe corrosion rate on steel or aluminum based on the criteria in 49 CFR 173.137(c) (2).

6.5.1.1. Corrosives are divided into two groups, acids, and bases. Acids refer to the end of the pH scale, which is from 6 down to 0. Bases range from 8 to 15.

6.5.1.2. Oxidizers are materials other than a gas, which may, generally by yielding oxygen, cause or enhance the combustion of other materials.

6.5.1.3. Organic peroxides are any material, other than a gas, that contains Oxygen (O) in the bivalent -organic radicals have replaced O-O- structure and which may be considered a derivative of hydrogen peroxide, where one or more of the hydrogen atoms.

6.5.2. Corrosives and oxidizers shall be located, stored, utilized and transported IAW NFPA 400, *Hazardous Materials Code*, NFPA 45, *Standard on Fire Protection for Laboratories Using Chemicals*, 49 CFR parts 171-180, *The Hazardous Materials Regulations*, 29 CFR 1910.104, *Oxygen*, 105, *Nitrous Oxide*, AFMAN 91-203 and this RAFBI.

6.5.3. Oxidizers are divided into two sub-classes by the DOT. They are as follows:

6.5.3.1. Division 5.1 - Oxidizers.

6.5.3.2. Division 5.2 - Organic Peroxides.

6.5.3.3. Corrosives are all included in the DOT hazard class of 8.0.

6.5.3.4. Oxidizers and organic peroxides shall be classified according to the system described in the following section of NFPA 400, *Hazardous Materials Code*:

6.5.3.4.1. Class 1: An oxidizer that does not moderately increase the burning rate of combustible materials with which it comes into contact.

6.5.3.4.2. Class 2: An oxidizer that will cause a moderate increase in the burning rate of combustible materials with which it comes into contact.

6.5.3.4.3. Class 3: An oxidizer that will cause a severe increase in the burning rate of a combustible material with which it comes in contact.

6.5.3.4.4. Class 4: An oxidizer that can undergo an explosive reaction due to contamination or exposure to thermal or physical shock and that causes a severe increase in the burning rate of combustible materials with which it comes into contact.

6.5.3.4.5. For a listing of typical oxidizers in the above classes, see NFPA 400, Appendix B.

6.5.4. Buildings used to store corrosives and oxidizers shall comply with the following requirements:

6.5.4.1. Ventilation will be provided by means of permanent louvered openings at floor level and ceiling levels, other accepted gravity ventilation methods, or mechanical ventilation suitable for the location, at a rate of not less than one cfm per square feet of floor area of the storage area.

6.5.4.2. Electrical installation may be for general-purpose areas and shall conform to the requirements of NFPA 70, *National Electric Code*.

6.5.5. Different acids will be stored separately in designated areas. In lieu of aisle space, non-combustible barriers up to a minimum of 3 ft. high and sealed at the floor level may be used to obtain maximum storage space.

6.5.6. The arrangement and quantity of oxidizers in storage shall depend upon their classification, type of container, type of storage (segregated, cutoff, or detached), and fire protection as requirements as specified in NFPA 400.

6.5.7. Corrosives and oxidizers shall be stored to avoid contact with incompatible materials such as ordinary combustibles, combustible or flammable liquids, greases and those materials that could react with the corrosive or oxidizer, promote, or initiate their decomposition. These shall not include approved packaging materials, pallets, or dunnage. Corrosives and oxidizers stored in plastic drums shall only be stored on heavy plastic or nylon type pallets. Wood pallets are not permitted for this use.

6.5.8. Special care shall be taken to prevent any contamination of corrosives or oxidizers in storage.

6.5.9. Where oxidizers and corrosives are stored in segregated warehouses with flammable liquids, the oxidizer and corrosive containers and flammable liquid drums/containers shall be separated by at least 25 ft. The separation shall be maintained by dikes, drains, or floor slopes to prevent flammable liquid leakage from encroaching on the separation.

6.5.10. Where Class 2, Class 3, or Class 4 liquid oxidizers are stored, means shall be provided to prevent the liquid oxidizer from flowing out of a cut-off area into an area containing incompatible materials.

6.5.11. All storage areas containing corrosives and/or oxidizers shall be conspicuously identified by the words "CORROSIVES" or "CLASS_OXIDIZERS". If different classes of oxidizers are stored in the same area, the area shall be marked for the most severe hazard class present.

6.5.12. All packages shall be approved and individually marked with the chemical name of the corrosive or oxidizer. All original shipping labels, to include DOT labels, shall be affixed to the container and shall always be legible.

6.5.13. Tanks and bins used for the storage of bulk solid corrosives or oxidizers shall meet the following requirements:

6.5.13.1. Construction materials shall be compatible with the corrosive or oxidizer being stored.

6.5.13.2. Tanks and bins shall be designed and constructed IAW federal, state, and local regulations.

6.5.13.3. Tanks and bins shall be equipped with an adequately sized vent or other relief device to prevent over pressurization due to decomposition or fire exposure.

6.5.14. Bulk liquid storage is storage of more than 600 gallons in a single container. All bulk liquid storage tanks shall be installed, labeled, serviced, and maintained IAW federal, state, and local regulations.

6.5.15. Bulk solid storage is storage of more than 6000 lbs. in a single container. All bulk solid storage containers shall be installed, labeled, serviced, and maintained IAW federal, state, and local regulations.

6.5.16. Retail Storage of Oxidizers and Corrosives:

6.5.16.1. Shelves and vertical barriers shall be placed between incompatible materials and shall be solid and of noncombustible construction.

6.5.16.2. Solid oxidizers and corrosives shall not be stored directly beneath incompatible liquids.

6.5.16.3. Shelves shall be no greater than 24 inches deep. Storage shall be no greater than six feet high.

6.5.16.4. The total amount of all corrosives and oxidizers in all classes shall be limited to two tons in non-sprinklered areas and four tons in sprinklered areas. Sprinklers shall be designed for the most severe oxidizer class stored.

6.5.16.5. The quantities provided for sprinklered retail sales areas shall be permitted to be applied to a maximum of two sales areas within one retail sales store if the two retail sales areas are separated from each other by a fire partition having at least a 1-hour fire resistance rating.

6.5.17. Where two or more different classes of oxidizers are stored in the same segregated, cut-off or detached area, the maximum quantity permitted for each class shall be limited to the sum of the maximum proportion permitted for that class. The total of the proportional amounts shall not exceed 100 percent.

6.5.18. Heating and Electrical Installations:

6.5.18.1. Heating shall be arranged so that stored materials cannot be placed in direct contact with heating units, piping, or ducts and corrosives or oxidizers shall be separated so that they cannot be heated to within 25°F of their decomposition temperature/boiling point or to 120°F, whichever is lower.

6.5.18.2. Electrical installations shall be in conformance with NFPA 70, *National Electrical Code* for ordinary wiring locations.

6.5.19. Maintenance and Repairs:

6.5.19.1. The performance of maintenance work in an oxidizer/corrosive storage area shall be subject to prior review and approval by supervisory personnel and the base Fire and Emergency Services.

6.5.20. Fire Extinguishing Equipment:

6.5.20.1. Manual firefighting equipment in the form of portable water extinguishers or water hose reels stations or cabinets shall be provided IAW NFPA 10, *Standard for Portable Fire Extinguishers*, and NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*, and *UFC 3-600-01*.

6.5.20.2. The placement and use of dry chemical extinguishers containing ammonium compounds (Class A, B, and C) shall be prohibited in areas where oxidizers/corrosives that can release chlorine are stored.

6.5.20.3. Halon extinguishers shall not be used in areas where oxidizers/corrosives are stored.

6.5.21. Housekeeping and Waste Disposal:

6.5.21.1. Accumulation of combustible waste in oxidizer/corrosive storage areas shall be prohibited.

6.5.21.2. Spilled oxidizers/corrosives and leaking or broken containers shall be removed immediately to a safe area if this can be done safely. If in doubt, notify the base Fire Department via 911 to initiate emergency response actions.

6.5.21.3. Used, empty, combustible containers shall be stored in a detached or sprinklered area. Operations shall be arranged to prevent excessive dust accumulation.

6.5.21.4. When absorptive combustible packing materials used to contain water-soluble oxidizers and corrosives have become wet during either fire or non-fire conditions, the oxidizer/corrosive can impregnate the packing material. This will create a serious fire hazard when the packing material dries.

6.5.21.5. Wooden pallets that are exposed to water solutions of an oxidizer/corrosive also can exhibit this behavior. Such materials shall be relocated to a safe outside area and shall be disposed of properly. Contact the Environmental Management Flight (78 CEG/CEIER) for disposal instructions.

6.6. Pesticides and Poisons:

6.6.1. Pesticide is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest or for use as a plant regulator, defoliant, or desiccant. A "restricted use pesticide" is as classified under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) in 40 CFR, part 152.175, *Pesticides Classified for Restricted Use*.

6.6.2. Poisonous material is a material, other than a gas, which is known to be so toxic to humans as to afford a hazard to health during transportation and storage, or which, in the absence of adequate data on human toxicity, is presumed to be toxic to humans because it falls within any one of the following categories when tested on laboratory animals.

6.6.3. Pesticides and poisons shall be stored, handled, and transported on this installation IAW NFPA 400 *Hazardous Materials Code*, NFPA 55, *Compressed Gases And Cryogenic Fluids Code*, 49 CFR, parts 100-179, and this RAFBI.

6.6.4. Hazard Management:

6.6.4.1. No construction or significant modification shall be made to a pesticide/poison storage facility unless the Fire Prevention Section reviews the construction/modification plans. This includes self-help work.

6.6.4.2. All storage facilities shall develop a hazardous materials emergency response plan for this type of facility prior to any materials being stored. This plan will include a review by the Fire Prevention Section initially and annually thereafter.

6.6.4.2.1. The emergency response plan shall designate an emergency response coordinator. The coordinator shall be responsible for implementing the emergency response plan and coordinating with outside agencies.

6.6.4.2.2. Equipment and materials necessary for implementing the emergency response plan shall be available and accessible.

6.6.4.2.3. Call 911 or 478-222-2900 immediately after any unintentional release of a pesticide or poison that may pose a threat to people, property, or the environment, and/or that exceeds the capability of the facility to manage the release.

6.6.4.2.4. The facility/organization responsible for the release shall activate the emergency response plan immediately.

6.6.4.2.5. No organization shall close or abandon any pesticide/poison storage area without notifying the Fire and Emergency Services at least 30 days prior to the scheduled closing date.

6.6.5. Housekeeping:

6.6.5.1. Accumulation of combustible waste materials in pesticide/poison storage areas is prohibited.

6.6.5.2. The disposition of unusable goods shall be permitted IAW the manufacturer's recommendations and the pesticide/poison label directions, disposal IAW DLA and Federal EPA regulations or returned to the manufacturer if possible. These materials shall be segregated until disposition.

6.6.5.3. Pesticide/Poison contaminated materials shall be disposed of or decontaminated IAW appropriate federal, state, and local regulations as specified by the manufacturer's instructions.

6.6.5.4. Leaking or damaged containers of pesticides shall be corrected immediately. Corrective actions shall include, if they can be done safely, over-packing or repackaging or other approved methods. Over packed material shall be segregated and stored until final disposition in accordance with the recommended disposal directions from Environmental Management Directorate or DLA-Disposition Services.

6.6.5.5. Contaminated pallets shall be disposed of with other pesticide/poison contaminated materials.

6.6.6. Structures and Buildings:

6.6.6.1. Buildings or portions thereof, in which pesticides/poisons are stored, shall be constructed of noncombustible materials.

6.6.6.2. Floors shall be constructed and maintained to contain and control spillage and fire protection water.

6.6.6.2.1. Floors for pesticide/poison storage areas shall be recessed a minimum of four inches or shall be provided with a liquid-tight seal raised to a minimum height of four inches to prevent the flow of liquid to adjoining areas.

6.6.6.2.2. Pesticide spills and fire protection water shall either be contained inside the facility or directed by a drainage system to outside, secondary containment. The capacity of the system shall be able to accommodate:

6.6.6.2.2.1. The secondary containment for indoor storage area shall be designed to contain a spill from the largest vessel plus the design flow volume of fire protection water calculated to discharge from the fire-extinguishing system over the minimum required system design area, or area of the room or area in which the storage is located, whichever is smaller, for a period of 20 minutes.

6.6.6.3. Any transportation vehicle involved in temporary storage of pesticides or poisons at any one facility for three days or longer shall be provided with secondary containment.

6.6.7. Ventilation:

6.6.7.1. Indoor storage areas and buildings for the storage of pesticides or poisons shall be provided with emergency mechanical exhaust ventilation, which shall be manually actuated upon detecting a spill, leak, or release. The ventilation shall be designed to maintain the concentration below the accepted human exposure levels, or for a minimum of six air changes per hour, whichever method yields the higher number of air changes.

6.6.7.2. The ventilation system shall be designed for exhaust within six inches of the floor level and air makeup above six ft.

6.6.8. Electrical installations shall be in conformance with NFPA 70, *National Electrical Code*.

6.6.9. The pesticide/poison storage areas shall be illuminated as necessary to allow ready identification of pesticide container labeling.

6.6.10. Control of Ignition Sources:

6.6.10.1. Smoking shall be prohibited in all storage areas containing pesticides/poisons.

6.6.10.2. "No Smoking" signs shall be placed within storage areas and at all entrances to storage areas.

6.6.11. Loading and unloading facilities shall have secondary containment. The secondary containment shall have a liquid-tight floor and shall be sloped or curbed to prevent overflow. This containment shall be permitted to be connected to the drainage system or shall be permitted to be contained at the unloading area.

6.6.12. Hazard Identification. All pesticide/poison storage facilities or rooms shall have a hazard identification system.

6.6.12.1. Identify all pesticide/poison storage areas with a sign IAW NFPA 704; *Standard for the Identification of the Hazards of Materials for Emergency Response*, and/or a sign that reads "PESTICIDES" or "POISONS" in black 2-inch minimum letters on a white background shall be posted. Post signs at each entrance/door to the pesticides/poison's storage area. Additionally, location of the signs shall comply with EPA requirements.

6.6.12.2. Each container shall have a legible Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) label on the outside of the container that is visible from ordinary areas of approach.

6.6.13. Facilities storing pesticides/poisons shall have a training program. Base the training on the federal HAZCOM and 29 CFR 1910.1200, OSHA's *Hazard Communication* training program to include current Safety Data Sheets (SDS) and other information supplied by manufacturers.

6.6.14. Storage Requirements:

6.6.14.1. A liquid-tight wall shall separate pesticides/poisons storage from food and personal contact items such as clothing, linens, furniture, animal feeds, and animal health products.

6.6.14.2. Incompatible materials shall not be stored within 25 ft. of pesticide/poison storage areas unless separated by a liquid-tight wall with fire resistance rating of one hour.

6.6.14.3. Pesticides/poisons shall be stored only on the first floor. Contact the Fire Prevention Section to approve any other storage or occupancy in a basement below the intended pesticide storage area.

6.6.14.4. Store pesticides/poisons to prevent harmful and unnecessary contact with moisture, excessive heat, or freeze/thaw cycles, which can affect either container integrity or product stability.

6.6.14.5. Treat empty, un-rinsed containers as full containers.

6.6.14.6. Compressed Gas Pesticides/Poisons:

6.6.14.6.1. Compressed gas pesticides (not including aerosols) shall be stored away from heat (steam pipes, heaters, direct sun) in an outdoor, covered area.

6.6.14.6.2. Keep containers tightly closed and provide with a safety cap when not in use, whether full or empty. Label container IAW DOT labeling requirements to indicate full or empty.

6.6.14.6.3. Separate containers by type, contents, and full or empty status. Separate compressed gas pesticides/poisons from other compressed gases by pipe railings or other effective means acceptable to the base F&ES.

6.6.15. Storage Arrangements:

6.6.15.1. Containers shall be stacked stable, and stacks shall be limited in height, based on container integrity.

6.6.15.2. After opening the original shipping container place the container on stable shelving and tightly re-closed or resealed.

6.6.15.3. Where flammable or combustible pesticides/poisons are stored, storage shall comply with **Chapter 6.2.** of this RAFBI.

6.6.15.4. Nonflammable pesticides/poisons shall be stored IAW NFPA 1, *Fire Code*. Rack storage of nonflammable pesticides/poisons shall comply with NFPA 1.

6.6.15.5. Bulk storage of flammable and combustible pesticides/poisons shall comply with NFPA 30, *Flammable and Combustible Liquids Code*, and Chapter 6.2 of this RAFBI.

6.7. Radioactive Materials:

6.7.1. Radioactive Material is any material having a specific activity greater than 70 Becquerel per gram (0.002 micro curie per gram) and any material that emits, by spontaneous nuclear disintegration, corpuscular or electromagnetic emanation.

6.7.2. Radioactive materials shall be received, stored, packaged, handled, shipped and disposed of in accordance with Air Force Joint Instruction 23-504, *Radioactive Commodities in DOD Supply System*; MIL STD-129, *Military Marking for Shipment and Storage*, Air Force Manual 24-204_IP, *Preparing Hazardous Materials for Military Air Shipments*, 49 CFR, parts 100-185, OSHA 29 CFR 1910.96-STD_01-04-001, 1910.1096, 29 CFR 1926.53 and this RAFBI.

6.7.3. Storage of radioactive materials:

6.7.3.1. Where containers are used for storage, the labels required by 29 CFR 1910.1096 shall state the quantities and kinds of radioactive materials in the containers and the date of the measurement of the quantities.

6.7.3.2. Rooms or other areas in on-site medical facilities are not required to be posted with caution signs, provided that there are personnel in attendance who shall take the necessary precautions to prevent the exposure of any individual to radiation or radioactive material in excess of the limits established in 29 CFR 1910.1096.

6.7.3.3. Caution signs are not required to be posted at areas or rooms containing radioactive materials for periods less than eight hours provided that:

6.7.3.3.1. The materials are constantly attended during such periods by an individual who shall take the precautions necessary to prevent the exposure of any individual to radiation or radioactive materials more than the limits established in 29 CFR 1910.1096.

6.7.4. Facility Manager will report buildings or rooms containing radioactive substances to the base Fire and Emergency Services. Facility Manager will provide a detailed floor plan drawing indicating the exact location of the material. Any time the radioactive materials are moved or removed from the facility or area notify the base Fire and Emergency Services at DSN 468-2145 or DSN 468-3487.

6.7.5. Matters not covered by current service/agency directives, RAFBI, or above information should be referred to the local Base Radiological Safety Officer (78 OMRS/SGXB) or Safety Office (78 ABW/SEG) for specific instructions/directions.

6.8. Hazardous Cargo:

6.8.1. Hazardous cargo is a material that is not regulated under any of the above hazard classes but is defined as other regulated materials (ORMs) according to 49 CFR, parts 100-179 and is being transferred on the installation. This includes hazardous wastes, consumer quantities of hazardous materials, and materials identified in one of the above listed definitions.

6.8.2. Contact the base Fire and Emergency Services at 478-222-4951 for all, other than routine, proposed transfers of explosives, oil, gasoline, or other hazardous materials as defined above.

6.8.2.1. Such transfers will be subject to applicable regulations, installation instructions and this RAFBI.

6.8.2.2. Observe all fire precautions.

6.8.2.3. If required, a fire watch approved by the Fire Prevention Section will be followed, to include proper fire extinguishing equipment.

6.8.2.4. For standbys under special or unusual conditions (i.e., hot refuels/defuels, specialized product transfers) call the base F&ES (478-222-4951) and request firefighters, and apparatus.

6.8.3. Contact the base Fire and Emergency Services at 478-222-4951 when a contractor removes bulk hazardous waste shipments (i.e., sludge removal from waste treatment plants) from or transport on this installation. Give this notification at least five working days in advance of the start of the contract.

6.8.4. Shipments of bulk goods, which are received through the Enterprise Environmental, Safety & Occupational Health Management Information System (EESOH-MIS) or consumer quantities of hazardous materials received through the Base Exchange or Commissary, are exempt from the above requirements of this section.

6.8.4.1. Follow these precautions any time you receive or transfer a shipment of hazardous materials on this installation:

6.8.4.2. The receiver and shipper of the material will inspect the packaging to ensure that it is in a serviceable condition and secured to the pallet if provided. If the package is found to be leaking, do not load or unload the material, secure the area, perform immediate area evacuation, and notify the base Emergency Communications Center (ECC) via 911 or 478-222-2900 to report the incident.

6.8.4.3. The shipper/expediter will ensure the material being transported is in a serviceable condition, the material is secured to the shipping pallet, if provided, and that the material is secured to the vehicle.

6.8.4.4. The organizational personnel receiving the material will inspect the shipment for serviceable container conditions and that the material is the proper material ordered. If the material is defective or leaking, the driver of the vehicle and the receiving personnel shall secure the area. Do not move the vehicle containing the defective/leaking material. Notify the base ECC via 911 to report the incident. When possible, have the shipping paperwork and any SDS' for the material available for responding fire department personnel.

6.9. Petroleum, Oil and Lubricants (POL) Storage Areas:

6.9.1. POL storage areas are used for the bulk storage of petroleum, oil or lubricant materials and fueling operations from a bulk source, such as gasoline stations and bulk refueling vehicles.

6.9.2. Bulk storage, transportation, transfer, handling and inspection of POL products/areas will be performed IAW NFPA 30, *Flammable and Combustible Liquids Code*; AFMAN 91-203, NFPA 385, *Standard for Tank Vehicles for Flammable and Combustible Liquids*; AFMAN 91-203, 29 CFR 1910.106; applicable AF Technical Orders and this RAFBI.

6.9.3. Protection Requirements:

6.9.3.1. Bonding facilities for protection against static sparks during the loading and unloading of tank vehicles through open domes shall be provided where flammable and combustible liquids are transferred. NOTE: NFPA 77, *Recommended Practice on Static Electricity*, and T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, provide additional information on static electricity protection.

6.9.4. Liquid handling, transfer, and use. The following criteria will apply to POL storage areas:

6.9.4.1. Flammable and combustible liquids shall be kept in closed tanks or containers, except when being transferred or in use.

6.9.4.2. Where liquids are used or handled, provisions shall be made to confine and dispose of leaks or spills promptly and safely.

6.9.5. Piping, valves, and fittings shall be IAW NFPA 30 Chapter 3, Piping Systems.

6.9.6. Design and arrange equipment to prevent the unintentional escape of liquids and vapors and to minimize the quantity escaping in the event of accidental release.

6.9.7. Fire Prevention and Fire Extinguishing Equipment:

6.9.7.1. Welding, cutting and similar spark-producing operations shall not be permitted in areas containing flammable liquids until the base Fire Prevention Section issues an AF Form 592, USAF Hot Work Permit.

6.9.7.2. Maintenance and operating practices shall control leakage and prevent spillage of flammable and combustible liquids.

6.9.7.3. Keep combustible waste materials and residues in operating areas to a minimum, stored in covered metal containers, and disposed of at least daily. Ground areas around POL facilities where liquids are stored, handled, or used shall be kept free of grass, weeds, trash, or other unnecessary combustible materials. Managers of POL areas will ensure grass and weed control schedules are performed with the base grounds' contractor.

6.9.7.4. Aisles established for movement of personnel shall be maintained clear of obstructions to permit orderly evacuation and ready access for firefighting activities.

6.9.7.5. Personnel responsible for the use and operation of fire protection equipment shall be trained at least annually in the use of the equipment.

6.9.7.6. Establish procedures for safe shutdown of operations under emergency conditions. Provisions shall be made for periodic training, inspection and testing of associated alarms, interlocks, and controls.

6.9.7.7. Facility and area managers of POL areas shall inspect fire protection equipment monthly and keep a written or automated record of the inspections.

6.10. Miscellaneous Requirements:

6.10.1. This section is to provide guidance on miscellaneous procedures and practices related to hazardous materials acquisition, storage, and processing, waste disposal and chemsite operations.

6.10.2. Hazardous Materials Management:

6.10.2.1. All orders of hazardous materials on RAFB go through the EESOH-MIS or equivalent, AF approved system. Use the modified AF Form 3952 *Chemical/Hazardous Material Request Authorization* to acquisition new hazardous materials for processes. Obtain AF Form 3952 approval prior to ordering any new hazardous material.

6.10.2.2. Area requesting/ordering hazardous materials will first ensure the material is not located on this installation prior to ordering the material. This is necessary to prevent the accumulation of hazardous materials in storage that may become out of date.

6.10.2.3. Once new material arrives into inventory, the responsible agency shall have the SDS for the product, either in hard copy form or on automated products. This information shall be immediately available for use by the base Fire and Emergency Services in the event of a spill or unintentional release.

6.10.2.4. Hazardous materials, when not in use, shall be stored in Hazardous Distribution Supply Centers (HDSCs) or other designated areas. HDSCs shall use the guidance provided in this RAFBI and other pertinent regulations for the materials they are storing.

6.10.2.5. Arrange HDSCs so they do not block exits or paths of egress from the room or area. HDSC managers shall be knowledgeable of hazardous materials regulations and procedures affecting the materials they are issuing. HDSCs will not store more hazardous materials than allowed in their area by permanent sections of this OI or other applicable regulations. HDSCs will also ensure segregation of incompatible materials to the greatest extent possible.

6.10.3. Chemsites, Initial Accumulation Points and Satellite Sites:

6.10.3.1. Train personnel who manage chemsites, initial accumulation points or satellite sites in hazardous materials/hazardous waste procedures by attending or completing the base hazardous waste or chemical manager's courses. Train personnel who handle hazardous wastes on Air Force hazardous waste collection, turn-in and disposal procedures.

6.10.3.2. General Chemsites guidance:

6.10.3.2.1. The chemsite manager will ensure that all fire extinguishers are inspected monthly. If the extinguisher requires inspection, refer to 4.3 of this RAFBI for inspection checklist and extinguisher maintenance facility.

6.10.3.3. General Chemsite Inspection Criteria:

6.10.3.3.1. Ground and bond flammable/combustible liquid drums.

6.10.3.3.2. If drum pumps are utilized, ensure they are installed into the drum and that hoses are retained in the hose holders, i.e., not lying on the floor.

6.10.3.3.3. Ensure drum funnels on hazardous waste drums are removed and the drum bung is reinstalled after each use. The newer type of drum funnel with the internal drum plug is acceptable if the drum plug is replaced and tightened, and the lid secured after each use.

6.10.3.3.4. Ensure that all containers are in a serviceable condition and that they are not corroded, swollen, or severely damaged.

6.10.3.3.5. Ensure all drums and containers are properly labeled with contents and start date.

6.10.3.3.6. Ensure that transfer devices are utilized for the material being transferred (compatible).

6.10.3.3.7. Keep chemsites free of trash and combustibles that are not necessary.

6.10.3.3.8. Ensure grass and weeds around chemsites remain trimmed. Coordinate this activity with the base grounds' contractor, as necessary.

6.10.3.3.9. Ensure the main drain valve on the beam surrounding a chemsite is kept in the closed position, unless draining off excess rainwater or when being utilized to remove chemicals. The drain valve shall only be allowed to be open when the site is supervised.

6.10.3.3.10. Ensure signs on the outside and inside of the chemsite are in good repair, i.e., "Flammable No Smoking" signs, chemsite manager listing and emergency phone numbers, as well as material location signs.

6.10.4. Chemical Compatibilities:

6.10.4.1. For questions as to compatibility of stored materials, call Bioenvironmental Engineering Flight at 497-7555 or the base Emergency Communication Center at DSN 472-4951.

6.10.4.2. Properly label and store materials of different types and hazardous wastes.

6.10.5. Satellite Sites:

6.10.5.1. Ensure that satellite site drums are properly labeled and that the site license and spill plan are posted in proximity to the drums.

6.10.5.2. When possible, ensure that the drums are stored off the floor or ground on pallets or other suitable means, preferably on spill containment pallets.

6.10.5.3. Ensure that the drums remain “closed” when not actually adding material to them. Spring loaded or the “easy open” lids on rag, aerosol can, and other approved solid accumulation containers are permissible. NOTE: When adding aerosol cans to drum, remove the cap and dispensing nozzle prior to placing cans in the drum.

6.10.5.4. Keep area around drums free from trash or debris accumulation.

6.10.5.5. Plastic drums with lids or “easy open” lids are permissible for the storage of contaminated rags as part of the rag recycling program.

Chapter 7

SPECIAL OPERATIONS

7.1. Airfield Operations:

- 7.1.1. Hook power units IAW TO 00-125-72 when serving an aircraft.
- 7.1.2. A fire extinguisher will be located near all power units while running.

7.2. Services Station/Fueling Operations:

- 7.2.1. Service station/fueling operations shall be IAW NFPA 1, NFPA 54 and NFPA 30A.
- 7.2.2. Fueling of powered equipment or the dispensing of any flammable liquid shall be conducted outside of all structures (inside fueling is prohibited).
- 7.2.3. Only use UL Listed or FM approved safety containers. Sit portable gas container on the ground when filling. Do not fill containers while container is setting in the back of pickup trucks or any other vehicle.
- 7.2.4. Do not use cell phones during dispensing operations.
- 7.2.5. Make sure you ground yourself from all static electricity prior to touching the gas-dispensing handle.
- 7.2.6. Do not smoke around fueling operations.

7.3. Welding, Cutting, Brazing and Grinding.

- 7.3.1. All welding, cutting, brazing, and grinding operations shall comply with criteria set forth in AFMAN 91-203 and NFPA 51B *Standard for Fire Prevention during Welding, Cutting, and Other Hot Work*.
- 7.3.2. Do not conduct any cutting, welding, brazing, or grinding operation outside of an authorized shop without an approved AF Form 592.
- 7.3.3. Notify the fire department at 478-222-4951 when performing any cutting, welding, brazing, and grinding outside of an established welding shop. A qualified fire department representative shall inspect the work site prior to starting the operation.
- 7.3.4. The individuals conducting the operation will have a 10 lb. ABC portable fire extinguisher at the work site. Contractor cannot use facility extinguisher. If the work site safe, the qualified fire department representative will sign and issue an AF Form 592 *USAF Hot Work Permit* to the operator. Duration of the AF Form 592 permit is 24 hours.
- 7.3.5. Authorized welding shops are initially inspected for compliance by fire prevention, ground safety, and bioenvironmental personnel. If deemed acceptable, the shop will receive a certificate of compliance that is good until the shop is terminated or disbanded. Periodically (at least annually) the authorized welding shop will be inspected.
- 7.3.6. Specific craftsmen (e.g., Civil Engineering and Plant Services personnel) receive annual training that allows them to issue and track their own AF Form 592s. Craftsman calls the base Fire and Emergency Services at 478-222-4951 to request a Hot Work permit control number.

7.4. Confined Spaces:

7.4.1. Anyone conducting work that requires entry into any confined space shall comply with AFMAN 91-203 Chapter 23 Confined Spaces.

7.4.2. Prior to entering any permit required confined space, fill out an AF Form 1024 Confined Spaces Entry Field Permit. Always keep a permit copy on site.

7.4.3. Any confined space entry work, which requires a permit, will be coordinated through the base Safety Office (78 ABW/SE), Bioenvironmental Engineering Flight (78 OMRS/SGXB), and the base Fire and Emergency Services (778 CES/CEXFP).

7.4.4. If the permit entry requires a rescue standby or the need for a rescue team at the site, due to an emergency or known Immediately Dangerous to Life or Health (IDLH) condition, the base Fire and Emergency Services or designated rescue team will be responsible for providing this service. This only applies to RAFB government employees.

7.4.5. For permit required entry on routine or maintenance work, the permit originator must ensure rescue team availability. Contact the base Fire and Emergency Services at 478-222-4951 for rescue team availability prior to confined space entry.

7.4.5.1. Originator will call base F&ES prior to entry into the confined space and at the time of exit of the confined space. If an emergency occurs during the confined space entry and rescue services are unavailable, the ECC will notify the originator to terminate the confined space entry until emergency services are available.

7.4.6. For specific guidance on confined space entry, consult the Confined Space Program Manager for RAFB. You can reach the program manager at the base Safety Office, DSN 472-2059.

7.4.7. Contractors performing confined space entry on RAFB must comply with OSHA, and 29 CFR 1910.146 requirements. The Robins Fire and Emergency Service will not be the “designated rescue team” for contractors entering confined spaces. If an emergency arises, contractors must call 911 or 478-222-2900.

7.5. Painting Operations:

7.5.1. Do not use an open flame device to remove paint from any structure.

7.5.2. Flammable thinners, solvents, and cleaners shall be handled, stored, dispensed, and used IAW regulations pertaining to NFPA 30.

7.5.3. Regular spray painting shall not be conducted within buildings unless standard spray booths or rooms are constructed and arranged IAW NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials*.

7.5.4. Spray booths shall be equipped with an exhaust ventilation system. Fans shall be non-sparking types, with explosion proof fan motors located outside the booth. Install exhaust systems to conform to NFPA 70 standards.

7.5.5. Before refinishing floors, eliminate all sources of ignition, including pilot lights for water heaters and appliances.

7.5.6. Do not keep flammable liquids, chemicals, paints, paint-soaked rags, or similar materials in clothing lockers.

7.5.7. Aircraft touch up painting guidance and other aircraft preparation/touch up painting shall be conducted IAW T.O. 1-1-3, T.O. 1-1-8, NFPA 409, and NFPA 410.

7.6. Tar Pots and Kettles:

7.6.1. Kettles for heating tar, asphalt, and similar materials shall be equipped with proper heat controls and means of agitation to assure controlled uniform temperatures throughout the contents to prevent spot heating. Comply with requirements outlined in NFPA 1.

7.6.2. Do not operate tar pots or kettles on the roof or inside the facility. Maintain tar pot or kettle 10 ft. from any building, air intake or combustible materials. A competent operator must always attend the tar kettle operations.

7.6.3. Place two 20 lbs. ABC fire extinguishers at the tar pot/kettle and two 20 lbs. ABC fire extinguishers at the area of tar application for a total of four fire extinguishers.

7.6.4. When applying the material within the buildings or enclosed areas, the atmosphere shall be free of dust and adequate ventilation provided to remove all smoke and fumes.

7.6.5. Roof contractors will clean the roof area prior to leaving the job site. Remove all combustible materials to include tar-soaked mops, paper, and debris. Do not leave tar-soaked mops on the roof.

7.6.6. Do not smoke on the roof.

7.7. Model Rockets:

7.7.1. Only use model rockets that utilize a launcher or model rocket motors designed with a fuse or electronic ignition source on hard surface areas (i.e. concrete or asphalt).

7.7.2. During severe drought conditions, the use of model rockets is prohibited IAW the State of Georgia Forestry Division.

7.8. Tents/Canopies:

7.8.1. Materials for tents and canopies must be noncombustible and certified fire resistant IAW NFPA 1. Do not erect tents and canopies inside facilities for either temporary or permanent use.

Chapter 8

FIRE SAFETY IN OCCUPANCIES

8.1. Public Assembly:

8.1.1. Rooms constituting an assembly occupancy (50 or more occupants) and not having fixed seating shall have the occupant load posted near the main exit of the room.

8.1.2. Submit in writing to the Fire Prevention Section any special events beyond the normal day-to-day operations. Submission will consist of a life safety floor plan to include a drawing of area with measurements, table/seating configuration, exhibit booth outline, stage location, exits, floor restrictions, and evacuation assembly locations.

8.1.3. Public assemblies shall establish a fire prevention program to train employees on fire reporting procedures, facility evacuation, and portable fire extinguisher use. Facility manager will maintain a record of the training.

8.1.4. Facility managers or assistants shall conduct closing inspections IAW [Figure A3.1](#), Facility Managers Closing Checklist.

8.1.5. Open flame devices used in any public assembly shall meet the following:

8.1.5.1. Properly secure candles and gaslights on a noncombustible surface away from combustible materials. Protect flames with glass globes.

8.1.6. Use portable cooking/warming equipment fueled by small heat sources in accordance with manufacture recommendations.

8.1.7. Fabric and films used for decorative purposes, draperies/curtains, and similar furnishing shall be fire resistant or treated for fire resistance IAW NFPA 701. FM shall maintain certification documentation.

8.2. Educational/Daycare Facilities:

8.2.1. Fire drills shall be conducted IAW NFPA 101, applicable regulations, and Air Force directives.

8.2.2. In educational facilities and childcare centers, draperies/curtains, and other similar loosely hanging furnishings and decorations shall comply with 8.1.7.

8.3. Warehouses:

8.3.1. Maintain access aisles to all portions of the storage areas. Access aisles shall not be less than eight feet in width.

8.3.2. Provide cross aisles of not less than four feet in width for stacks up to 10 ft. in height. Where stacks exceed 10 ft. in height, cross aisles shall be at least five ft. in width.

8.3.3. Store combustible materials, such as excelsior, rags, and shredded paper in fire resistant bins with fusible link or self-closing doors.

8.3.4. Do not store materials under stairways or piled against building doors or exits. Do not store combustible materials within 25 ft. of any structure.

8.3.5. Maintain a 24-inch space between stored combustible materials and interior finish, firewalls, and partitions.

8.3.6. Keep packing materials in the original bales until used and keep broken bales in metal lined bins with automatic self-closing covers. Do not allow packing and unpacking waste or other sources to accumulate in hazardous quantities. At the end of the workday/shift, remove all waste and dispose of waste into designated containers.

8.4. Battery Shops:

8.4.1. Equipment used in battery shops will conform to the provisions of the NFPA 70, *National Electrical Code*.

8.5. Museums:

8.5.1. The museum director is responsible for ensuring conformance with all life and fire safety requirements IAW NFPA 101, and NFPA 909, *Code for the Protection of Cultural Resource Properties – Museums, Libraries, and Places of Worship*.

8.5.2. Monitor and control the number of occupants admitted to an event so not to exceed the facility occupancy load. You can increase the occupant load with an approved plan. Contact the Fire Prevention Section at DSN 468-2145 for assistance with the plan.

8.5.3. Increased occupant load plan must comply with 8.1.2. Submit all Life Safety Floor Plans to the Fire Prevention Section for an annual review.

8.5.4. During an event, staff members shall be aware of the location of handicapped visitors and shall be able to assist them in evacuating them from the building in case of a fire alarm activation.

8.6. Fire Prevention Assistance:

8.6.1. For any fire prevention questions, guidance, or assistance contact the Fire Prevention Section at COMM 478-222-4951 or DSN 472-4951.

BRIAN R MOORE, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

29CFR 1910.101, *Compressed Gases (General Requirements)*

29CFR 1910.102, *Acetylene*

29CFR 1910.103, *Hydrogen*

29CFR 1910.104, *Oxygen*

29CFR 1910.105, *Nitrous Oxide*

29CFR 1910.106, *Flammable Liquids*

29CFR 1910.111, *Storage and Handling of Anhydrous Ammonia*

29CFR 1910.96-STD_01-04-001, *OSHA Coverage of Ionizing Radiation Sources Not Covered by Atomic Energy Act of 1954*

29CFR 1910.146, *Permit-Required Confined Spaces*

29CFR 1910.1096, *Ionizing Radiation*

29CFR 1910.1200, *Hazard Communication*

29CFR 1926.53, *Occupational Health and Environmental Controls, Ionizing Radiation*

49CFR parts 100 to 185, *Code of Federal Regulations, The Hazardous Materials Regulations*

AFJI 23-504, *Radioactive Commodities in DOD Supply System*

AFMAN 24-204_IP, *Preparing Hazardous Materials for Military Air Shipments, 20170713*

AFI 32-2001, *Fire and Emergency Services (F&ES) Program, 20140227*

AFI 32-10141, *Planning and Programming Fire Safety Deficiency Correction Projects, 20190515*

AFI 91-202 - *The US Air Force Mishap Prevention Program*

AFPD 32-20, *Fire and Emergency Services, 20180710*

AFI 33-364, *Records Disposition – Procedures and Responsibilities, 20150409*

AFMAN 33-363, *Management of Records, 20190417*

AFI 40-102, *Tobacco Free Living, 20150304*

AFMAN 91-203, *Air Force Consolidated Occupational Safety Instruction, 20181211*

AFMAN 91-201, *Explosives Safety Standard, 20170321-Compressed Gas Association Pamphlet C-6, Standard for Visual Inspection of Steel Compressed Gas Cylinders*

Compressed Gas Association Pamphlet C-8, *Standard for Requalification of DOT-3HT, CTC-3HT and TC-3HTM Seamless Steel Cylinders*

MIL STD-129R, *Military Marking for Shipment and Storage, 20140218*

NFPA 1, *Fire Code*

NFPA 10, *Standard for Portable Fire Extinguishers*

NFPA 13, *Standard for the Installation of Sprinkler Systems*

NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*

NFPA 15, *Standard for Water Spray Fixed Systems for Fire Protection*

NFPA 30, *Flammable and Combustible Liquids Code*

NFPA 30A, *Code for Motor Fuel Dispensing Facilities and Repair Garages*

NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials*

NFPA 45, *Standard on Fire Protection for Laboratories Using Chemicals*

NFPA 51, *Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting and Allied Processes*

NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*

NFPA 55, *Compressed Gases and Cryogenic Fluids Code*

NFPA 58, *Liquefied Petroleum Gas Code*

NFPA 70, *National Electrical Code*

NFPA 77, *Recommended Practice on Static Electricity*

NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*

NFPA 101, *Life Safety Code*

NFPA 385, *Standard for Tank Vehicles for Flammable and Combustible Liquids*

NFPA 409, *Standard on Aircraft Hangars*

NFPA 410, *Standard on Aircraft Maintenance*

NFPA 484, *Standard for Combustible Metals*

NFPA 495, *Explosive Materials Code*

NFPA 704, *Standard for the Identification of the Hazards of Materials for Emergency Response*

NFPA 909, *Code for the Protection of Cultural Resource Properties – Museums, Libraries, and Places of Worship*

T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding, Change 27, 20190906*

T.O. 1-1-3, *Inspection and Repair of Aircraft Integral Tanks and Fuel Cells, Change 26, 20190201*

T.O. 1-1-8, *Application and Removal of Organic Coatings, Aerospace and Non-Aerospace Equipment, Change 26, 20191026*

UFC 3-600-01, *Fire Protection Engineering for Facilities*

UFC 3-600-02, *O&M: Inspection, Testing, and Maintenance of Fire Protection Systems*

Adopted Forms

AF Form 592, *USAF Hot Work Permit*

AF Form 847, *Recommendation for Change of Publication*

AF Form 1024, *Confined Space Entry Field Permit*

AF For 1487, *Fire Prevention Visit Report*

AF Form 3952, *Chemical/Hazardous Material Request Authorization*

Abbreviations and Acronyms

AF—Air Force

AFCEC—Air Force Civil Engineer Center

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFPD—Air Force Policy Directive

ASME—American Society of Mechanical Engineers

ASTM—American Society for Testing and Materials

BDOC—Base Defense Operations Center

°C—Temperature in Centigrade

CFM—Cubic Feet per Minute

CFR—Code of Federal Regulations

CGA—Compressed Gas Association

Chemsite—Chemical Storage Site

DLA—Defense Logistics Agency

DOT—Department of Transportation

DSN—Defense Switched Network

ECC—Emergency Communications Center

EHWAS—Exterior Hazardous Waste Accumulation Site

EPA—Environmental Protection Agency

ESSOH-MIS—Enterprise Environmental, Safety & Occupational Health Management System

ETL—Engineering Technical Letter

F&ES—Fire and Emergency Services

FIFRA—Federal Insecticide, Fungicide and Rodenticide Act

FM—Factory Mutual
FSD—Fire Safety Deficiency
HAZCOM—Hazard Communications
HAZMAT—Hazardous Materials
HDSC—Hazardous Distribution Supply Center
IAW—In Accordance With
ICAP—Interim Corrective Action Plan
IDLH—Immediately Dangerous to Life or Health
Kg—Kilogram
L—Liter
Lbs—Pounds
LED—Law Enforcement Desk
m—Meter
m²—Square Meter
m³—Cubic Meter
MAJCOM—Major Command
MAQ—Maximum Allowable Quantity
M-CAP—Mitigation-Corrective Action Plan
MIL-STD—Military Standard
NFPA—National Fire Protection Association
OPR—Office of Primary Responsibility
ORMs—Other Regulated Materials
OSHA—Occupational Safety and Health Administration
POL—Petroleum, Oil and Lubricants
psi—Pounds per Square Inch
RAFB—Robins Air Force Base
RAFBI—Robins Air Force Base Instruction
SCF—Standard Cubic Feet
SDS—Safety Data Sheet
TC—Transport Canada
T.O.— Technical Order
UFC—Unified Facilities Criteria

UL—Underwriters Laboratory

US—United States

USAF—United States Air Force

Terms

Classified Location—Locations shall be classified depending on the properties of the flammable gas, flammable liquid-produced vapor, combustible-liquid produced vapors, combustible dusts, or fibers/flying that may be present, and the likelihood that a flammable or combustible concentration or quantity is present. Each room, section, or area shall be considered individually in determining its classification. NFPA 70, *National Electrical Code*.

Class I, Division 1 locations—(1) In which ignitable concentrations of flammable gases, flammable liquid produced vapors, or combustible liquid produced vapors can exist under normal operating conditions, or

Class I, Division 1 locations—(2) In which ignitable concentrations of such flammable gases, flammable liquid produced vapors, or combustible liquids above their flash points may exist frequently because of repair or maintenance operations or because of leakage, or

Class I, Division 1 locations—(3) In which breakdown or faulty operation of equipment or processes might release ignitable concentrations of flammable gases, flammable liquid produced vapors, or combustible liquid produced vapors and might also cause simultaneous failure of electrical equipment in such a way as to directly cause the electrical equipment to become a source of ignition. NFPA 70, *National Electrical Code*

Class I, Division 2 locations—(1) In which volatile flammable gases, flammable liquid produced vapors, or combustible liquid produced vapors are handled, processed, or used, but in which the liquids, vapors, or gases will normally be confined within closed containers or closed systems from which they can escape only in case of accidental rupture or breakdown of such containers or systems or in case of abnormal operation of equipment, or

Class I, Division 2 locations—(2) In which ignitable concentrations of flammable gases, flammable liquid produced vapors, or combustible liquid produced vapors are normally prevented by positive mechanical ventilation and which might become hazardous through failure or abnormal operation of the ventilating equipment, or

Class I, Division 2 locations—(3) That is adjacent to a Class I, Division 1 location, and to which ignitable concentrations of flammable gases, flammable liquid produced vapors, or combustible liquid produced vapors above their flash points might occasionally be communicated unless such communication is prevented by adequate positive pressure ventilation from a source of clean air and effective safeguards against ventilation failure are provided. NFPA 70, *National Electrical Code*

Exit—That portion of a means of egress that is separated from all other spaces of the building or structure by construction or equipment as required to provide a protected way of travel to the exit discharge. Exits include exterior exit doors, exit passageways, horizontal exits, and separated exits or ramps. For more details, consult NFPA 101 *Life Safety Code*, or NFPA 1, *Fire Code*.

Facility Manager—The designated person who signs a receipt for any facility under their jurisdiction. Each facility/building manager is responsible for the fire safe conditions of the facility and equipment under his or her control.

Fire Hazard—Any situation, process, material, or conditions that, on the basis of applicable data, may cause a fire or explosion or provide a ready fuel supply to augment the spread or intensity of the fire or explosion and that poses a threat to life or property.

Fire Safety Deficiency (FSD)—A condition which reduces fire safety below an acceptable level, including noncompliance with standards, but by itself cannot cause a fire to occur.

Commander/Director—The senior operating official at all levels exercising managerial control of an activity or operations. This individual usually can acquire and commit resources for the abatement of occupational safety and health hazards.

Fire Detection System—A system designated to detect the presence of fire or smoke. Building occupants are notified with visual and audible devices, and a signal may be sent to the base Fire and Emergency Services. NFPA 72, *Fire Alarm Code*, UFC-Unified Facilities Criteria.

Fire Door—A listed door installed in a building to separate sections or certain areas to prevent damage by heat or smoke in the event of a fire. Designed to meet the special criteria and certified by an appropriate testing organization. NFPA 80, *Fire Doors and Other Opening Protective*.

Fire Suppression System—A system designed to respond to the presence of fire and discharge extinguishing agent to control or extinguish the fire while sending a signal to the base Fire and Emergency Services. NFPA 13, *Installation of Sprinkler Systems*, NFPA 25, *Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, UFC-Unified Facilities Criteria, *Fire Protection Engineering for Facilities 3-600-01*, UFC, *Inspection, Testing, and Maintenance of Fire Protection Systems 3-600-02*.

Hazard Abatement—To eliminate or reduce a safety, fire, or health hazard.

NFPA—National Fire Protection Association, an independent and nonprofit organization whose mission is safeguarding the environment from fire using scientific and engineering techniques and education. Develops codes and standards that are used by the US Air Force.

Risk Assessment Code (RAC)—An expression of degree in risk in terms of hazard severity and mishap probability. Fire, Safety, or Bioenvironmental engineering personnel can assign RAC's.

Attachment 2

FACILITY MANAGER MONTHLY CHECKLIST

Figure A2.1. Facility Managers Monthly Checklist.

MANAGER'S NAME:		DATE:	
OFFICE /SYMBOL:		OCCUPANCY:	
FACILITY NUMBER:			
HAZARD	YES	NO	REMARKS
1. Are required emergency evacuation plans posted?			
2. Are exit signs lighted and in working condition?			
3. Are all exits, and fire aisles clearly marked; clear of obstructions, and unlocked when the facility is occupied?			
4. Are extinguishers properly mounted, unobstructed and in serviceable condition?			
5. Are foyers, entrance halls and stairwells clear, and not being utilized for storage areas?			
6. Is trash being removed from the building daily?			
7. Are vehicles being parked at proper distances from buildings and not blocking hydrants or parking in fire lanes?			
8. Are unauthorized flammable liquids being used for cleaning purposes?			
9. Are flammable liquids identified and being stored properly?			
10. Are fire doors kept clear and in working condition?			
11. Are clothes dryer filters clean and vented properly?			
12. Are storage areas properly maintained?			
13. Are extension cords of the approved type and not being used as permanent wiring?			
14. Do power strips have surge protectors and being used properly?			
15. Are unnecessary electrical appliances and equipment turned off at the end of each day?			
16. Are lawn mowers and gas-powered equipment stored properly?			

HAZARD	YES	NO	REMARKS
17. Is the clearance under sprinklers a minimum of 18 inches? Areas over 15 feet must have a clearance of 36 inches.			
18. Are all personnel in the facility trained in fire prevention practices? Are they familiar with proper fire reporting and building evacuation procedures?			
19. Is the overall housekeeping of the building good?			
20. Copies of AF Form 1487 and pertinent TRIRIGA Service Request on file and have previous deficiencies been corrected?			
<p>The checklist and necessary actions have been initiated to correct all deficiencies. Signature of Building/Facility</p> <p>Manager: _____ Date _____</p>			

Attachment 3

PUBLIC ASSEMBLY MANAGERS CLOSING CHECKLIST

A3.1. The following is a guide for the proper closing procedures of public assembly facilities and other buildings as determined by the base Fire and Emergency Services. If you have any questions, please contact the Fire Prevention section at DSN 468-2145.

Figure A3.1. Public Assembly Managers Closing Checklist.

Checked	Checklist Item
	When Hood & Duct exhaust fans are inoperative, cooking shall stop immediately until the exhaust fan is fully operational.
	All kitchen equipment switches are in off position.
	Installed grease filters and range hoods have been cleaned.
	Non-essential heating devices are in off position.
	Non-essential portable electric devices are in off position and unplugged.
	Smoking materials are disposed of in approved metal containers with self-closing lids.
	Trash receptacles are emptied into outside dumpsters.
	Soiled rags are removed from building or kept in a metal container with a self-closing cover.
	Painting supplies and other flammable materials are removed from building or properly stored in flammable cabinets.
	All unnecessary lighting is turned off.
	All exit doors are properly secured.
	Managers or their designated representative shall ensure proper closing procedures are performed.
	Inspections will be annotated in the facility manager's fire prevention folder.
DATE _____ SIGNATURE _____	

Attachment 4

FIRE SAFETY DEFICIENCY CODE DECISION MATRIX

Table A4.1. Fire Safety Deficiency Code Decision Matrix.

Rule	If the deficiency is a result of	then the FSD code is
1	failure to meet the minimum NFPA 101 requirements for an existing building occupancy	1
2	failure to meet a fire or life safety requirement of a UFC or other document for an existing building and not covered under Rule 1	2
3	any deficiency in fire safety features resulting from new construction which does not meet the minimum construction requirements of UFC 3-600-01, paragraph 1-3.2.1.	1
4	any deficiency in fire safety features which results from a modernization, renovation, repair, restoration, upgrade, or change of occupancy project which does not meet the minimum construction requirements of UFC 3-600-01, paragraphs 1-3.2.2 through 1-3.2.4.	1
5	any out-of-service or impaired means of egress feature required by NFPA 101 for an existing occupancy not corrected within 24 hours	1
6	any out-of-service or impaired means of egress feature and not covered under Rule 5	2
7	an out-of-service or impaired fire alarm and notification system required by NFPA 101 for an existing occupancy	1
8	a facility fire alarm system which does not report fire alarm signals to the fire alarm receiving center or other constantly attended location operated by trained personnel and protecting any facility used for sleeping or command, communications and control (C ³) facility (excludes battery-operated smoke detectors and similar alarms that are not part of the facility central fire alarm system)	1
9	an out-of-service fire alarm and notification system and not covered under Rules 7 and 8	2
10	a facility fire alarm which does not report fire alarm signals to the fire alarm receiving center or other 24/7 attended location operated by trained personnel and not covered under Rule 7	2
11	an out-of-service or impaired fire detection system required by NFPA 101 for an existing occupancy	1
12	an out-of-service or impaired fire detection system and not covered under Rule 11	2
13	an out-of-service or impaired fire suppression system required by NFPA 101 or UFC 3-600-01 for an existing occupancy	1
14	an out-of-service or impaired fire suppression system and not covered under Rule 13	2
15	any impairment which would prevent a fire suppression system, fire detection system or fire alarm/notification system from automatically responding to a fire event not covered by Rules 3, 7, 11, or 13	2
16	an air compressor or supplementary air supply either out of service or out of automatic service serving any type of dry-pipe or pre-action sprinkler system	1
17	two (2) or more fire pumps either out of service or out of automatic service in a fire protection water pump system/facility required by NFPA 101 for an existing occupancy	1
18	a fire pump either out of service or out of automatic service and not covered under Rule 17	2
19	one (1) or more pressure booster fire pumps is either out of service or out of automatic service providing supplementary pressure to fire suppression systems required by NFPA 101 for an existing occupancy	2

20	a fire protection system pressure maintenance (jockey) pump out of service, out of automatic-service, or constantly running	2
21	all other FSDs	3

Attachment 5

FIRE WATCH CHECKLIST

Figure A5.1. Fire Watch Checklist.

		ROBINS AFB FIRE WATCH CHECKLIST			
RESPONSIBLE SUPERVISOR					
DATE COVERED BY CHECKLIST					
DATE RECEIVED IN FIRE PREVENTION					
<p>A Fire Watch is an inspection conducted by designated facility personnel to provide fire and smoke detection and emergency warning to occupants when a building's fire alarm or sprinkler system is non-operational. It is to be conducted at a minimum, every <u>four</u> (4) hours when the facility is occupied or there is a fueled aircraft in the facility.</p> <p>Inspector must note time and initials upon completion of the inspection. Utilize a new Checklist every 8-hours.</p>					
Action Required	Time	INT	Time	INT	
1. No potential sources of ignition and unnecessary combustible materials.					
2. Alarm activation devices are free of obstructions should they need to be activated.					
3. The designated runner is aware of his/her responsibilities (e.g., Notifying occupants to evacuate the building in the event of a fire by verbal warning, whistle, horn, or other notification device).					

4. A telephone or radio is immediately available to notify 9-1-1 of emergencies.					
5. Portable fire extinguishers are within service date, readily available and free of obstructions.					
6. Meeting area designated to ensure personnel accountability at least 75' away from the structure in the event of an emergency.					
7. All hazardous operations terminated (e.g., welding, cutting, grinding) except as approved by the Robins F&ES.					
8. All areas of the facility checked (e.g., closets, bathrooms, break areas, mechanical rooms, etc.).					
9. Note: Be able to inform the F&ES of pertinent emergency info (e.g., Location, Type, Personnel Missing, etc.).					
The responsible supervisor and/or facility manager will hand carry the completed forms to the Robins AFB F&ES Fire Prevention section (Fire Station 1, Bldg. 377) weekly to ensure Fire Watches are being conducted IAW the established Corrective Action Plan.					

Attachment 6

FIRE SAFETY DEFICIENCY SIGN

Figure A6.1. Fire Safety Deficiency Sign.

