

**BY ORDER OF THE COMMANDER
18TH WING**

**KADENA AIR BASE INSTRUCTION
32-2001**



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Civil Engineering

**FIRE PREVENTION
AND PROTECTION**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive (AFPD) 32-20, *Fire Emergency Services*, and Department of Defense Instruction (DoDI) 6055.06, *DoD Fire and Emergency Services (F&ES) Program*, Department of Labor – Occupational Safety and Health Administration (OSHA), Code of Federal Regulations (CFR), and National Fire Protection Association (NFPA) standards as Air Force policy unless otherwise directed in DoD or Air Force instructions (AFI). This instruction provides guidance for implementing and maintaining a sound fire prevention program and establishes responsibilities, procedures and practices of effective control and elimination of fire hazards. This publication applies to all 18th Wing military, civilian, contract personnel, and units assigned to, attached to, or occupying real property under the jurisdiction of Kadena Air Base (AB), Bellows Air Force Station (AFS), Camp Shields, and Okuma, unless limited by waiver granted under host-tenant agreements. Failure to observe the prohibitions and mandatory provisions in paragraphs **1.6**, **2.11.3**, and **5.2** of this publication by military members is a violation of Article 92 of the Uniform Code of Military Justice (UCMJ). Ensure all records generated as a result of processes prescribed in this publication adhere to AFI 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with (IAW) the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been substantially revised and needs to be completely reviewed. Major changes include the addition and removal of procedures contained in previous instructions including updated Department of the Air Force Instruction (DAFI) references, NFPA Standards, and Department of the Air Force Manuals (DAFMAN). Additional changes were incorporated and require the user to review their specific area.

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Chapter 1

ADMINISTRATION AND ENFORCEMENT

1.1. Mission. To provide available resources to protect life, property, and the environment from unfavorable outcomes of fire, hazardous material releases and natural disasters, while ensuring mission capability. This is accomplished by daily preparation, aggressive fire prevention, public education, proactive leadership, and professional incident intervention with highly trained and equipped personnel.

1.2. Values. We accomplish this by providing, technical consultant services, promoting aggressive fire prevention and public education program, and maintaining a professional Fire and Emergency Services (F&ES) force to protect lives, property, and environment.

1.3. Standards. This agency will comply with relevant standards IAW DoDI 6055.6, *DoD Fire and Emergency Services (F&ES) Program*, DAFI 32-2001, *Fire and Emergency Services (F&ES) Program*, promulgated by the Department of Labor- OSHA, NFPA National Fire Codes, Unified Facilities Criteria (UFC) 3-600-01, *Fire Protection Engineering for Facilities*, and other fire safety criteria published by the Department of Defense.

1.4. Objective. A successful fire prevention program requires command support at all levels and the continued involvement of all personnel. The Kadena Fire and Emergency Services (KF&ES) Flight Commanders/functional managers, supervisors, facility managers, tenant units, and all military and civilian personnel, must take adequate measures to eliminate and prevent fires or fire safety hazards. Loss of life due to inadequate fire prevention can never be condoned. Loss of property will result in unnecessary expenditure of funds, inconvenience, and costly delays in mission accomplishment, which could seriously hinder the national defense effort. Since the most effective means of reducing fire losses is an aggressive fire prevention program, all personnel must strictly adhere to the provisions of this publication. There are four primary focus areas of fire prevention: plans review, facility inspection, code enforcement, and public education. Although the Installation Fire Chief is charged with managing the program, he/she must rely on Commanders to enforce the program, and installation personnel to execute the program.

1.5. Authority Having Jurisdiction. Headquarters Air Force Civil Engineer Center (AFCEC) is the overall Authority Having Jurisdiction (AHJ) for Air Force Fire Protection policy and approval of permanent deviations to NFPA, UFC, and other fire safety standards. Deviations from established Fire Prevention and Emergency Services Policy will be handled IAW DoDI 6055.06 and DAFI 32-2001.

1.6. Enforcement. Commanders, functional managers, real property facility managers and supervisors shall continually emphasize compliance of this instruction. Disciplinary action may be initiated where willful misconduct compromising the safety of the base populace occurs. Examples of such behavior are willfully transmitting false or emergency alarms, tampering with or negligence of fire protection equipment, and disregarding policies that jeopardize lives and/or government property. Violations are subject to adverse administrative action, to include debarment from base or dismissal from base housing, or punishment under the Uniform Code of Military Justice (UCMJ) or other applicable laws.

Chapter 2

RESPONSIBILITIES

2.1. Installation Commander. 18th Wing Commander (18 WG/CC) is responsible for the fire safety of personnel and property under his/her control, provided for by the F&ES programs. This responsibility is discharged through the Base Fire Marshal and executed by the Installation Fire Chief IAW DAFI 32-2001. The Installation Commander is the AHJ for approving short-term (less than 18 months) deviations. The AHJ appropriately prioritizes programs and provides adequate funding for correction and compliance, approves risk management (RM) plans for deviations, and forwards the approved RMs to Air Forces Installation and Mission Support Center (AFIMSC) Det 2/CEOO.

2.2. Base Fire Marshal (BFM). The 18th Civil Engineer Squadron Commander (18 CES/CC) is designated as the Base Fire Marshal (BFM) and is responsible to the Installation Commander for the effective and efficient execution of the installation's fire protection program. The BFM is authorized to abate any operations or processes considered to be a fire or explosive hazard to prevent injury of personnel or loss of property due to fires. Additionally, the BFM provides the Installation Fire Chief (IFC) with the necessary support to ensure the highest possible priority and funding of fire protection and prevention initiatives to accomplish mission support.

2.3. Installation Fire Chief (IFC). The KF&ES Flight Chief is the IFC and is directly responsible to the BFM for establishing, executing, and maintaining KF&ES programs; effectively utilizing resources; determining the requirement for additional resources; conducting risk assessments; advising Commanders regarding risk and capability; and implementing risk management actions. The IFC develops risk management plans, which include detailed actions to take during periods of reduced F&ES capability, for the appropriate approval level. Additionally, the IFC will establish and implement an effective fire protection and prevention program, aircraft rescue firefighting (ARFF), structural firefighting, hazardous materials response, mutual aid coordination and response, and confined space rescue.

2.4. Section Chief, Assistant Chief of Fire Prevention. The Section Chief, Assistant Chief of Fire Prevention is designated by the IFC and given authority to execute the 18th Wing's fire prevention program.

2.4.1. Coordinates with the 18th Wing Safety Office (18 WG/SE) to ensure appropriate Fire Safety Deficiencies (FSDs) are applied and briefs FSDs and trends at the Environmental Safety Health Committee Council (ESOHC).

2.4.2. Validates all AF Form 1487, *Fire Prevention Visit Report*, prescribed by DAFI 32-2001, *Fire & Emergency Services (F&ES) Program*.

2.4.3. Works with organizational/functional Commanders and facility managers when FSDs or non-compliant areas cannot be corrected within AF Form 1487 timelines.

2.5. Fire Inspectors. Certified fire inspectors are responsible for conducting facility inspections, validating facility folders, conducting fire safety training for the base populace, conducting fire drills at all DoD schools, child development centers, school age programs, youth centers, and military family housing towers owned by the 718th Civil Engineer Squadron.

2.5.1. Inspectors will also conduct facility managers training, family home day care provider training, newcomers' briefings, pre-inspections, issue welding permits, and review facility explosive licenses.

2.5.2. Coordinate with facility/safety managers to schedule mandatory fire safety inspections/facility manager's fire prevention training and provide master facility inspection list with tentative inspection months for facilities.

2.5.3. Upon completion of facility fire inspections, provide guidance to facility/safety manager and supervisor on required action to correct existing fire hazards and deficiencies.

2.5.4. Provide master facility manager folder template that includes at a minimum emergency action plan (EAP), employee training, facility inspection, and fire extinguisher checklist.

2.5.5. Provide fire prevention lectures and demonstrations. Training can be scheduled by calling the fire prevention Office at extension 634-FIRE (3473).

2.6. Unit Commanders and Supervisors. IAW Department of the Air Force Manual (DAFMAN) 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, Unit Commanders and supervisors will ensure that sound fire prevention procedures are established for each facility under their control and supervision.

2.6.1. Implement an effective fire prevention and life safety program within their organization that meets the requirements of DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards* and DAFI 32-2001, *Fire and Emergency Services Program*.

2.6.2. Designate a facility manager and alternate for 24-hour contact. Information shall be provided to 18th Civil Engineer Customer Service (18 CES/CEOER). Written information shall include name, rank, duty phone, office symbol, and home phone number of the individual and alternate who are responsible for the facility. Both will receive mandatory training within 30 days of appointment and refresher training during facility fire inspections by fire inspectors.

2.6.3. Immediately notify the KF&ES Flight of any installed fire protection systems or fire extinguishers damaged during normal operation, accident, or misuse. Conduct a thorough investigation upon notification by the IFC that abuse, misuse, or other unauthorized acts have occurred about fire extinguishers, fire alarm systems, or fire suppression systems. Initiate administrative or disciplinary action where there is willful misconduct or negligence involving fire prevention and life safety.

2.6.4. Ensure all assigned personnel are knowledgeable concerning fire reporting, personnel evacuation, fire prevention measures and fire extinguisher use.

2.7. Facility Managers. Facility managers are responsible to their Commander for the fire safe condition of each building under their control. Alternate facility managers will assume this responsibility in the absence of the facility manager. Facility managers or their designees' duties include, but are not limited to, the following:

2.7.1. Facility managers and alternates must receive training through the Fire Prevention office and 18 CES/CEOER Customer Service within 30-days of assignment (Call 18 CES/CEOER to schedule @ 634-2424).

2.7.2. Facility managers/supervisors shall train all employees in fire prevention procedures including the location, inspection, and use of fire extinguishers within two weeks of assignment/employment and at least annually thereafter.

2.7.3. Develop written procedures to follow when a fire is discovered. Instructions must cover fire reporting procedures, personnel evacuation, and initial fire-fighting actions by trained personnel (At no time will personnel re-enter a building to fight a fire once they have evacuated). Depending on the type of activity, it shall also include emergency actions for removal of aircraft, protection of high value and critical materials, and response to accidents involving fuel handling. These written instructions shall be reviewed and approved by the Fire Prevention office. Contact 18 CES/CEFP for questions.

2.7.4. Maintaining a Facility Folder (digital or hardcopy) with the following:

2.7.4.1. A copy of the current Kadena Air Base Instruction (KADENAABI) 32-2001.

2.7.4.2. All AF Form 1487, *Fire Prevention Visit Report*, issued within the last two calendar years.

2.7.4.3. Facility manager appointment letter(s) and/or letter(s) of approval.

2.7.4.4. Waiver(s)/AF Forms 4437, *Deliberate Risk Assessment Worksheet*, for Fire Safety Deficiencies.

2.7.4.5. Monthly extinguisher, emergency light, and exit light check record.

2.7.4.6. Deep-fat fryer calibration test records and dates (if applicable).

2.7.4.7. Hood-and-duct-cleaning certification (if applicable).

2.7.4.8. A drawing of the current facility configuration as seen from a top-down view. This drawing will be utilized to create evacuation plan signs and assist during fire prevention inspections. The drawing must include walls, doors with correct door swing directions, stairwells, manual fire alarm activation stations, fire alarm panels, electrical panels, heating, ventilation, and air condition (HVAC) shut-off locations, electrical shut off locations, connections to the sprinkler/standpipe system (if equipped), ammunition lockers, flammable storage lockers, hazardous material accumulation points, secure rooms, and any other hazardous areas located within the facility.

2.7.5. Conduct monthly inspections of assigned facilities to eliminate potential fire hazards. This inspection shall include, but not be limited to:

2.7.5.1. Check the condition of all fire extinguishers in the facility IAW Department of the Air Force (DAFMAN) 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, Chapter 6 and NFPA 10, *Standard for Portable Fire Extinguishers*.

2.7.5.1.1. Ensure fire extinguishers are properly mounted, pressurized, have safety pins/seals in place, are unobstructed, are within six years of their manufacture date, and the monthly inspections are being conducted/annotated. Class K extinguishers must be within five years of their manufacture date.

- 2.7.5.1.2. Ensure fire extinguishers are hung or mounted on protective stands and are highly visible and easily accessible. Hand-held fire extinguishers will not be moved from their designated location except to extinguish a fire. Cabinets housing fire extinguishers shall not be locked.
- 2.7.5.1.3. Fire extinguishers having a gross weight not exceeding 40 lbs. (18.14 kg) shall be installed so that the top of the extinguisher is not more than 5 feet (1.53 m) above the floor. Fire extinguishers having a gross weight greater than 40 lbs. (18.14 kg) (except wheeled types) shall be so installed that the top of the extinguisher is not more than 3 ³/₄ feet (1.07 m.) above the floor. In no case shall the clearance between the bottom of the extinguisher and the floor be less than 4 in. (10.2cm).
- 2.7.5.1.4. IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, facility managers must budget for, purchase, and maintain their own dry chemical fire extinguishers. KF&ES will no longer be able to accept and dispose of expired dry chemical fire extinguishers effective 1 October 2016. Additionally, facility managers must now dispose of dry chemical fire extinguishers when they reach a lifespan of six-years. However, Japanese brand fire extinguishers only have a five-year lifespan.
- 2.7.5.1.5. All facility managers will verify their facility fire extinguishers are serviceable and will maintain accurate accounting to ensure no extinguishers exceed the allowable lifespan. Facility managers may purchase fire extinguishers through the Kadena AB General Services Administration (GSA) Mart or GSA Advantage. **Note:** KAB GSA Mart may need advanced notice for orders of large quantities. Coordinate purchases with the store manager with enough lead time to allow for shipping.
- 2.7.5.1.6. It is recommended facility managers budget for and purchase Japanese brand fire extinguishers from the local economy. These extinguishers are preferred as Japan has a closed loop recycling program that makes it easier to dispose of through the Hazardous Waste shop. American brand fire extinguishers take six to nine months to dispose of properly. The downside of Japanese fire extinguishers is they have a shorter lifespan (five-years) and will need to be replenished more often than American brand extinguishers.
- 2.7.5.1.7. KF&ES personnel are available to assist Commanders by providing academic and hands-on training on portable fire extinguishers. Facility managers shall budget for purchase of portable dry chemical fire extinguishers. Owning organizations are responsible for ensuring portable fire extinguishers are removed from use and delivered to Hazardous Waste shop located at Bldg 3623 for disposal. Please contact Hazardous Waste Shop at DSN: 634-2600 before delivery.
- 2.7.5.2. Ensure exits are not blocked or obstructed and that exit doors are unlocked while the facility is occupied.
- 2.7.5.3. Ensure monthly exit and emergency lighting function tests are being conducted correctly. Ensure they operate in normal and “test” modes.
- 2.7.5.4. Ensure extension cords are not used in a permanent fashion or daisy-chained and ensure all high wattage appliances (e.g., heat-production appliances, refrigerators of all types, cooking appliances, coffee makers, etc.) are all plugged directly into a wall outlet.

2.7.5.5. Replace smoke detector batteries in personnel rooms every six months to ensure proper function in case of a power outage (if applicable). Document the battery replacement in the facility fire safety binder.

2.7.5.6. Ensure newly assigned personnel understand procedures for reporting fire/life safety hazards or unsafe situations, as well as emergency numbers are DSN: 911 and CELLULAR DEVICE: 098-934-5911.

2.7.5.7. Ceiling tiles in facilities with drop or suspended ceilings must be securely installed and in good condition. Broken, missing, or water-logged ceiling tiles must be replaced by completing a work order with 18 CES Customer Service.

2.7.5.8. When a standpipe system or any portion thereof is out of service, the KF&ES Emergency Communications Center (ECC) shall be notified, and a sign shall be posted on each fire department connection (FDC) indicating what portion of the system is out of service.

2.8. Managers of Public Assembly Recreational and Educational Facilities. Adhere to the relevant chapters in DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, and NFPA 101®, *Life Safety Code*®, for compliance. Facilities that have fixed seating, the occupant load calculation will be maintained in the Facility manager's fire prevention book/folder.

2.8.1. Assembly occupancies include, but are not limited to, all buildings or portions of buildings used for gathering 50 or more persons for such purposes as education, deliberation, worship, entertainment, eating, drinking, amusement, awaiting transportation or similar uses, or that are used as a special amusement building regardless of occupant load.

2.8.2. All areas considered assembly occupancies must have the maximum occupancy load posted both inside and outside each area where the maximum occupancy exceeds 50 persons. This posting must be in an obvious location and must not be obstructed. Facility managers must ensure at no time the occupancy load limit is exceeded without written approval by the fire prevention office. A certified Fire Protection Engineer (FPE) determines occupancy loads for all facilities on Kadena AB.

2.9. Managers of Base Concessions. Facility managers or designee appointed by the Commander will be the quality assurance evaluator for all hood and duct cleanings involving their facilities. Facilities where commercial cooking or restaurant-type cooking is performed must establish and enforce the following procedures:

2.9.1. Ensure underside of the kitchen hoods and grease filters are cleaned daily, or more frequently, if required, clean behind and underneath of appliances. Recommend spare filter sets be readily available for continuous operation.

2.9.2. Ensure a thorough cleaning every six months or as specified by 18 CES/CEF to prevent the hazardous accumulation of grease. This cleaning cycle includes grease accumulations on fans, roofs, louvers, exterior walls, cupolas, etc., and where the system exhausts to the outside IAW NFPA 96, *Standard for Ventilation Control and Fire Protection for Commercial Cooking Operations*. Provide 18 CES/CEFP a programmed cleaning schedule of hood and duct cleanings semi-annually for coordination of inspections. Documentation for all cleanings, including checklists, must be kept on site for all commercial cooking facilities and maintained in the facility folder/binder.

2.9.3. Ensure cooking is not permitted under hoods without all approved-type grease filters installed.

2.9.4. Ensure proper operation of the exhaust system while cooking equipment is being used. If an exhaust fan is shut down for repair or replacement, equipment served by that exhaust system must not be used until the fan is restored to service. Cooking appliances requiring protection shall not be moved, modified, or rearranged without prior re-evaluation of the fire-extinguishing system by the system installer or servicing agent, unless otherwise allowed by the design of the fire-extinguishing system. Coordination is required through fire prevention office (18 CES/CEFP).

2.9.5. Managers shall maintain records on file for each range hood and deep fat fryer IAW NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, and NFPA 17A, *Standard for Wet Chemical Extinguishing Systems*. Deep fat fryer test/certification will be provided based on manufacturers recommendations. If manufacturer recommendations are not listed, test/certification will be provided annually. Contact 18 CES/CEFP for additional guidance at 634-FIRE (3473). Ensure all cooking appliances are maintained and operated according to the manufacturer's recommendations. A defective appliance will not be utilized and must be placed out of service until repaired.

2.9.6. Cooking equipment that produces grease-laden vapors (including, but not limited to deep fat fryers, ranges, griddles, broilers, woks, tilting skillets, and braising pans) shall be protected by fire extinguishing equipment. Fire extinguishing equipment shall include both automatic wet or dry chemical extinguishing systems as primary protection and two portable fire extinguishers as secondary backup. The backup extinguishers shall be of the Class K rating and shall be a minimum of 10 lbs. (4.5 kg). When a suppression/extinguishing system is out of service for any reason, cooking equipment protected by that system will not be used.

2.10. Non-Commercial Cooking Managers. Domestic cooking, except for military family housing, must be evaluated and documented in writing by the fire prevention office for protection by a domestic fire suppression system at organizations' expense. The use of heat-producing electrical appliances not listed by the Underwriters Laboratory (UL), the National Electric Code, or British Standards (BS) is prohibited. All areas associated with cooking including surfaces and related exhaust systems will be kept clean and free of grease accumulation.

2.10.1. Organizational workplace cooking (including hot plates, sandwich makers, George Foreman grills, electric frying pans, roasters, toaster ovens, and similar cooking appliances that produce grease/oil) is prohibited, except for pre-approved kitchen areas or special occasions approved by KF&ES. The following items are authorized for use within the work area on KAB: microwave ovens, refrigerators, toasters, crock pots, rice cookers, and electric coffee makers/tea kettles.

2.10.2. Lodging facilities without established kitchen areas are authorized the following appliances: microwave ovens, refrigerators, toasters, crock pots, rice cookers, and electric coffee makers/tea kettles.

2.10.3. All small cooking appliances will be UL approved, unplugged when not in use, and cleaned after each use including adjacent surfaces, and related exhaust systems which will be kept clean and free of grease accumulation.

2.11. Dormitory Manager Guidance. Accomplish fire-safety inspection of all dormitories and recreational rooms at the end of the normal workday.

2.11.1. Ensure trash does not accumulate and that good housekeeping practices are enforced. No candles, flammables, or open flame producing devices are authorized to be used or stored in the dorm room.

2.11.2. Ensure that all mean of egress including exits are unobstructed.

2.11.3. Brief all newly assigned members not to tamper with the fire detection system (fire sprinklers, smoke detectors, etc.). Continue to notify occupants annually not to tamper with, alter, or activate any component of any installed fire alarm and/or suppression system except during an actual fire condition. Violations are subject to adverse administrative action or punishment under the UCMJ or other applicable laws.

2.11.4. Dormitory rooms with kitchens and with centrally located kitchens will ensure all new residents are trained on the stove hood extinguishing system, class K fire extinguishers and proper operation of the stove/oven.

2.11.5. The following small cooking appliances are authorized for use in dormitory rooms on KAB: microwave ovens, refrigerators, coffee makers, if a kitchenette is not provided.

2.11.6. The following small cooking appliances are **prohibited** for use in dorm rooms on KAB: hot plates, sandwich makers, George Foreman grills, electric frying pans, roasters, toaster ovens, and similar cooking appliances that produce grease/oil. These items shall only be used in approved kitchenettes or centrally located kitchens. If not listed and in doubt, contact the dorm manager and fire prevention office prior to purchasing or using. These small appliances may be stored in individual's assigned storage locker (not personal wall locker in dormitory rooms) in pre-determined dormitory storage areas. All appliances must be cleaned and cold to the touch prior to storing.

2.11.7. All small cooking appliances will be UL approved, un-plugged when not in use, and cleaned after each use.

2.12. Occupants of Military Family Housing (MFH). Compliance IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, AFI 32-6000, *Housing Management*, NFPA 101®, *Life Safety Code*®, Family Housing Agreement, and other directives is mandatory. 718th Civil Engineer Installation Housing Management Flight (718 CES/CEIH) will notify KF&ES dispatch center of any occupant living in MFH on Kadena with physical or mental impairments.

2.12.1. Military and civilian sponsors residing in MFH are responsible for fire prevention in their quarters. Sponsors ensure family members and guests are familiar with fire-safe practices, prevention measures, evacuation of quarters, and emergency reporting procedures. Each military or civilian sponsor will be provided information pertaining to home fire safety/prevention during newcomers' briefing.

2.12.2. Small quantities of gasoline for use in lawn mowers and edgers present a potential hazard. Do not keep more than 2 gallons on hand for this purpose. Gasoline will be stored in containers approved by nationally recognized testing laboratory, i.e., UL or local national equivalent. Store containers in well-ventilated area and out of children's reach.

2.12.3. Residents of MFH will perform an operational test of their smoke detectors monthly. All non-operative detectors will be reported to Housing Maintenance as an emergency work order. MFH smoke detectors are local alarms only and are not connected to a fire alarm system that transmits to the ECC.

2.13. Vacant Buildings.

2.13.1. Facility managers responsible for vacant buildings shall remove all combustible waste and refuse therein and lock, barricade, or otherwise secure all windows, doors, and other openings in the building to prohibit entry by unauthorized persons.

2.13.2. Buildings that are vacant shall maintain sprinklers and standpipe systems in an "in-service" state unless exempted by the AHJ.

2.13.3. Sprinkler, standpipe, and fire alarm systems that have been out of service for 30 days or more are required to have an inspection test accomplished prior to being brought back into service.

Chapter 3

FIRE PREVENTION PROGRAM

3.1. Frequency. Fire prevention inspections are conducted annually for all required facilities. The Fire Chief, Deputy Chief or Assistant Chief may institute more frequent inspections to include unannounced and after-hours inspections. Exception: Family housing is excluded except for the common areas within multi-family housing units. Common areas include laundry rooms, game rooms, stairwells, hallways, elevators, storage areas, etc. Special inspections are conducted on an as-needed basis. Follow-up inspections are conducted on facilities with repeat write-ups and may be conducted for quality assurance.

3.2. Scheduling. The fire prevention office will designate the month each facility will be inspected. Dates within the inspection month will be coordinated between the fire inspector and facility manager. Facility managers are responsible for coordination to ensure all areas within the facility are accessible prior to the scheduled inspection.

3.3. Objectives. The objectives of fire prevention inspections include identifying, documenting, reporting, and correcting fire safety hazards (conditions that can cause a fire) and FSD (conditions that cannot directly cause a fire but will increase risk to personnel or property if a fire occurs).

3.4. Inspection Procedures. Facility Managers and squadron Safety Representatives are the key performers to ensuring a successful fire safety program. The materials contained in this instruction provide the standard for inspecting all real property under the jurisdiction of Kadena AB, Bellows AFS, Camp Shields, and Okuma.

3.4.1. Facility Managers or designee shall accompany the Fire Inspector during the inspection and will initiate corrective actions for fire hazards and deficiencies noted during the inspection.

3.4.2. At the conclusion of the visit, the Fire Inspector will brief the Facility Manager or alternate on the results of the visit.

3.4.3. If no hazards are noted or if discrepancies are corrected on the spot, the Fire Inspector will annotate the visit on an official memorandum and will email the record to the Facility and Functional Managers.

3.4.4. If hazards are discovered during the visit, the Fire Inspector will prepare an official AF Form 1487. The inspector will itemize the hazards and/or discrepancies, assign the appropriate risk assessment code and/or fire safety deficiency and itemize suggested corrective actions required to eliminate the hazards and/or deficiencies.

3.4.5. Facility Managers will take the necessary actions to eliminate the hazards. For all findings that cannot be corrected on the spot, steps to correct the hazards must be implemented at the earliest date possible.

3.4.5.1. For all findings not able to be corrected on the spot, the Facility Manager must submit work requests through 18th Civil Engineer (CE) Customer Service using the TRIRIGA database and obtain a work order number. An approved and funded job order or work order represents the organization's commitment of resources to a corrective action and is considered the corrective action plan.

3.4.5.2. An official AF Form 1487, *Fire Prevention Visit Report*, will be sent via email to the facility manager. Facility Managers will have 30 working days from the email notification to submit and document work order numbers (CAP) and obtain Unit Commander signature on the official AF Form 1487. Once signed, the Facility Manager will forward the official AF Form 1487 to the fire prevention office (18 CES/CEFP) for processing and record keeping.

3.4.5.3. Failure to submit for work orders and obtain the Commanders signature from the owning organization within the 30 working days will result in notification to the Base Fire Marshall IAW DAFI 32-2001.

3.4.6. Fire Safety Deficiency (FSD) Codes. An FSD code is a condition which reduces fire safety below an acceptable level, including noncompliance with standards, but by itself cannot cause a fire to occur. FSDs have three ratings with FSD I considered to have the greatest risk to life.

3.4.6.1. An FSD I should be given highest priority as missing fire protection systems or missing NFPA 101® features in any building or process has been identified and immediate correction is required.

3.4.6.2. When an FSD I exist for more than 72 hours, the Risk Management (RM) plan shall be prepared by the facility user with the support of F&ES and 18 WG/SE as needed. The owning organization will develop a risk management and corrective action plan (CAP) using an AF Form 4437, *Deliberate Risk Assessment Worksheet*. Interim control measures should be implemented to reduce overall risk and should not be considered a permanent fix nor reduce the priority required to correct the impairment. Risk should be accepted by the owning organization Commander based on risk severity.

3.4.6.3. Facility users prepare CAPs with the support of the F&ES, Engineering and/or Operations Flights (as appropriate). The plan should identify the actions that are needed to correct the identified deficiency. An approved and funded job order or work order represents the installation's commitment of resources to a corrective action and is considered the CAP.

3.4.6.4. The RM package must also identify the remaining mission risk exposure due to the temporary deviation. In the absence of interim control measures, the facility shall be evacuated, or operations stopped.

3.4.6.5. The Facility Manager will have 30 working days from the email notification to annotate a synopsis of the CAP on the AF Form 1487 as well as the RM plan on the AF Form 4437 and obtain Commander signature from owning organization.

3.5. Fire Evacuation Drills/Plans.

3.5.1. Fire drills will be conducted by Commanders, supervisors, and facility managers as required by NFPA 101®, *Life Safety Code*®, based on type of occupancy and directives pertaining to the operation or function in their area of responsibility. A minimum of one drill will be accomplished annually by all facilities.

3.5.2. Monthly evacuation drills are conducted at different times during the month for all Child Care, Youth Centers, and DoD Education Activity (DoDEA) Schools. One additional emergency egress drill, other than for educational occupancies that are open on a year-round basis, shall be required within the first 30 days of operation. The fire prevention office will coordinate these monthly evacuation drills, and one additional unannounced drill during the first week of the school year and first week of the summer program in School Age Care IAW AFI 34-144, *Child and Youth Programs*.

3.5.2.1. No-notice fire drills conducted at Kadena AB schools will be coordinated with the sitting principal at least 15 minutes prior to the drill to ensure academic-critical instruction will not be interrupted.

3.5.2.2. When the weather is severe, the monthly emergency egress drills shall be permitted to be deferred, when coordinated through the fire prevention office.

3.5.3. Fire drills will be conducted in military family housing towers annually. The fire prevention office will ensure written notices to the occupants are posted at each tower at least two weeks prior to the drill.

3.5.4. All occupants of the building shall participate in the drill. This drill will be documented in the facility fire safety binder (digital or hard copy).

3.5.5. Supervisory personnel for specific occupancies can be task certified by the Fire Prevention Office to conduct and document fire drills.

3.5.6. Annual fire drills do not need to be coordinated through the fire prevention office and can be accomplished in-house.

3.5.7. The use of fire alarms during drills is prohibited except with the assistance of Fire Emergency Services personnel.

3.5.8. The facility manager and all supervisory personnel are responsible for ensuring safe evacuation of personnel in case of a fire. Where fire exits and egress routes are not obvious, facility managers/supervisors will ensure a fire evacuation floor plan is posted showing primary and alternate egress routes to the fire exits. The plan will be conspicuously posted inside the room of occupancy. A description of fire evacuation procedures and emergency notification shall be posted on unit information boards.

3.6. Fire Exits. Exits must comply with NFPA 101®, *Life Safety Code*®.

3.6.1. Fire exit doors and routes of egress, aisles, corridors, and stairways leading to exits will not be obstructed in any manner. Underneath stairwells shall not be used for storage. Alterations to these areas will not be accomplished without prior coordination with the fire prevention office.

3.6.2. The minimum number of means of egress from any balcony, mezzanine, story, or portion thereof shall be two. Such exits shall be remotely located from each other and shall be arranged and constructed to minimize the possibility that more than one can be blocked by any one fire or other emergency condition.

3.6.3. Exit doors must be visible, accessible, and swing freely without restriction while the door and panic hardware must be in good repair. All exit doors on the exterior of a facility must be equipped with self-closing devices.

3.6.4. Emergency exits or fire doors will not be blocked open except by approved hold open devices connected to the fire alarm system. No additional locking device will be allowed on emergency exit doors or doors that have installed panic hardware while the building is occupied.

3.6.5. Exit doors must be arranged to be readily opened from the egress side whenever the building is occupied.

3.6.6. Interior doors will not be blocked without approval and guidance from the fire prevention office.

3.6.7. No lock, padlock, hasp, bar, chain, or other device will be installed or maintained on a door with panic hardware while the facility is occupied.

3.6.8. During typhoon conditions, typhoon locks or sandbags may be utilized to secure a door under the following conditions.

3.6.8.1. Tropical Cyclone Condition of Readiness (TCCOR) 1 has been declared.

3.6.8.2. The possibility of entering TCCOR 1 exists during a period in which the facility will be unoccupied. **Example:** If a facility is normally unoccupied during a weekend, the doors may be locked/blocked on Friday afternoon by the LAST person to exit the facility.

3.6.8.3. All doors labeled as “Emergency Exit” will be unlocked/unblocked upon declaration of TCCORs 2-4. Facilities that were permitted to be locked in **Paragraph 3.6.8.2** will be unlocked/unblocked by the FIRST person to arrive at the facility upon the resumption of normal duty hours.

3.6.9. All emergency exit signs shall be placed and continuously illuminated throughout facilities IAW NFPA 101®, *Life Safety Code*®.

3.7. General Housekeeping, Building and Grounds. Adequate clearance will be maintained around facilities to ensure exit discharge is not obstructed, and firefighting operations will not be compromised. Consult the installation F&ES Flight for guidance on emergency lighting and exit requirements.

3.7.1. Storage will NOT be permitted above ceilings (in attics), beneath raised floors, or in boiler, air handling and mechanical rooms. Items required to support essential functions for operation of air handling and mechanical rooms such as air filters may be stored. Ceiling tiles will be kept in place. Other than those designed to support necessary building utilities, tiles with holes and/or other damage will be replaced.

3.7.1.1. When materials are stacked to a height less than 15 feet, maintain an 18-inch clearance below ceiling sprinkler deflectors. If the stack is over 15 feet in height, increase the clearance to 36 inches (when only joists, rafters, beams, and roof trusses exist), without a ceiling constructed below, a 36 inches clearance will also be required. Position all stacks of materials to ensure an 18-inch clearance around light or heating fixtures, or follow the manufacturer’s instructions, regardless of height.

3.7.1.2. Floors, aisles, and passageways shall be kept clear and in good repair, with no obstructions, free of defects that can endanger employees or interfere with handling of materials, or hinder people leaving during emergencies. All aisles shall be at least 36 inches wide to permit free movement of workers, equipment, and supplies. A minimum of 18 inches shall be provided for passageways formed by or between movable obstructions.

3.7.1.3. Where the fire prevention office finds the required path of travel to be obstructed by furniture or other movable objects, they may require that they be fastened out of the way or that railings or other permanent barriers be installed to protect the path of travel from encroachment.

3.7.1.4. Storage of combustible materials or flammable liquids underneath stairways is prohibited. Storing or parking motorcycles, scooters, and barbeque grills under stairways (interior or exterior) is prohibited.

3.7.1.5. Fire escapes, stairways and landings must be kept free of stored items.

3.7.2. Exhaust fans and motors will be kept clear of dust, lint, and grime. Clothes dryer vents in all lodging, dormitory, and industrial facilities shall be cleaned on a weekly basis or as needed. This includes the clothes dryer lint trap and all venting devices used for discharging heat to the exterior of the facility.

3.7.3. Woodworking shop personnel will clean sawdust and wood shavings as often as needed and at the end of each duty day.

3.7.4. Facility managers will not allow combustible waste to accumulate in a manner to create a fire hazard. Dumpsters and trashcans shall be positioned 15 feet (4.57 m) from buildings.

3.8. Plans Review.

3.8.1. Fire Protection Engineering. The PACAF Fire Protection Engineer (FPE), AF IMSC Det 2/CEOI, manages fire protection engineering requirements as prescribed by the current edition of Unified Facility Criteria (UFC) 3-600-01, *Fire Protection Engineering for Facilities*, through the 718th Civil Engineer Squadron Engineering Flight (718 CES/CEN). The Engineering Flight shall perform design reviews to ensure inclusion of UFC 3-600-01, engineer technical letters (ETL), NFPA codes, and applicable host-nation standards. The IFC provides consultation and design recommendations regarding firefighting operational requirements but is not responsible for system design. The IFC coordinates on design drawings to signify review and that firefighting operational recommendations are incorporated. This coordination does not indicate fire protection engineering design acceptance.

3.8.2. Fire inspectors should not conduct technical design reviews (hydraulic calculations, occupancy load/exit calculations, etc.), but 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.).

3.8.3. Plans must be submitted for review to the fire prevention office (634-3473) 14 calendar days prior to any suspense dates.

Chapter 4

GENERAL FIRE SAFETY PRACTICES

4.1. Fundamental Requirements. All Kadena AB employees shall be familiar with the contents of this instruction and the applicable sections of DAFMAN 91-203 *Air Force Occupational Safety, Fire, and Health Standards*. A copy of this instruction shall be maintained in the facility fire safety binder. This will provide a reasonable level of life safety and property protection from actual and potential fire hazards.

4.2. Clear Areas. Maintain a minimum clearance of 36 inches (18 inches each side) for all fire alarm panel boxes, sprinkler systems, risers, associated control valves, water motor devices, exterior drains, and fire department pumper connections. This clear width rule will also apply to vegetation, flower gardens, statues, lawn ornaments, and other items that may impede the path of firefighters.

4.3. Designated Tobacco Use Areas (DTAs). Commanders and leaders shall minimize the number of DTAs on an installation to as close to zero as possible. DTAs are exclusively located outdoors and there is no requirement for DTAs to be covered or enclosed. Disposal of tobacco products at DTAs shall be IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, make sure the facility is in a fire-safe condition at the close of business.

4.3.1. IAW 18 WG/CC Policy Letter signed on 30 March 2017 regarding DTA, the fire prevention office is no longer a coordinating and approval authority for DTA's. The main point of contact (POC) for DTA's from the policy letter is the Medical Group, Health Promotion Section.

4.4. Control of Smoking.

4.4.1. Ensure compliance IAW AFI 48-104, *Tobacco Free Living*. Smoking, including the use of smokeless tobacco, electronic cigarettes, vaping, candles, incense, sage, and hookahs, etc. is not authorized for use in any government facility (**excluding military family housing**) including dormitories, lodging, guest rooms, common areas of unaccompanied housing, temporary lodging facilities, and installation recreational facilities. Actions of this type will be identified to the applicable Unit Commander and/or first sergeant by the fire prevention office for follow-on accountability.

4.4.2. Provide a butt can for proper disposal of tobacco materials. Ashtrays used for the disposal of smoking materials shall be used exclusively for smoking materials and shall be emptied daily. Metal containers with self-closing lids, stenciled "SMOKING MATERIALS ONLY" shall be provided in designated smoking areas. When these containers become half filled, the contents will be thoroughly soaked for no less than 15 minutes, placed in a sealed bag, and discarded outside in a trash can or dumpster. These containers must not be present in non-designated smoking areas. If such containers are found in non-designated smoking areas, or if unapproved containers not meeting the above requirements are found in any areas, they will immediately be confiscated by the fire prevention office. When containers need to be emptied, saturate the material with water, prior to disposal in any other trash containers.

4.4.3. Make sure the tobacco use area is properly identified. No smoking signs are needed only for areas posted for fire, explosives, or other safety hazards. All other areas are assumed to be no smoking areas.

4.4.4. The installation shall implement and enforce minimum distance standards for DTAs IAW Department of Defense Instruction (DoDI) 1010.10, *Health Promotion and Disease Prevention*:

4.4.4.1. Greater than or equal to 50 feet from building entrances, and air intake ducts.

4.4.4.2. Greater than or equal to 100 feet from playgrounds.

4.4.5. Smoking shall be prohibited within 50 feet of a hangar, aircraft, repair dock, paint shops, gasoline storage or servicing areas, maintenance shops, or other similarly hazardous location IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*.

4.4.6. Smoking, open flames, and other sources of ignition shall be prohibited in the immediate vicinity of batteries that are being charged or discharged.

4.4.7. Smoking or open flames shall not be permitted within 50 feet of flammable or combustible liquid storage areas.

4.4.8. Open flames and spark-producing devices are prohibited within 50 feet of the refueling maintenance shop. There shall be no smoking within 50 feet of a refueler maintenance building.

4.5. Flammables and Combustibles. Flammable and combustible liquids, including spray cans will be handled and stored per DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, Chapter 22.

4.5.1. Flammable and combustible liquids shall be stored in approved flammable storage lockers when not in use. These flammable storage lockers will be closed and locked any time the materials are not being utilized. Additionally, an accurate inventory shall be posted on the exterior of all flammable storage lockers.

4.5.2. Not more than 120 gal (454 L) of Class I, Class II and Class IIIA liquids may be stored in a storage cabinet. Of this total, not more than 60 gal (227 L) may be of Class I and Class II liquids and not more than three (3) such cabinets may be located in a single fire area, except that in an industrial occupancy, additional cabinets may be located in the same fire area if the additional cabinet or group of not more than three (3) cabinets is separated from other cabinets or group of cabinets by at least 100 feet (30 m) per NFPA 30, *Flammable and Combustible Liquids Code*.

4.5.3. Flammable and combustible liquid storage in military family housing is permitted, not to exceed five US gallons, if stored in an approved safety container and if located away from sources of ignition and outside the living portion of the quarters.

4.5.4. Gasoline, thinner, and other volatile flammables will not be used for cleaning purposes.

4.5.5. Dip tanks or bench washing vats using flammable/combustible solvents will be of metal construction, equipped with self-closing lids and a fusible link. Lids will not be wired or propped in the open position.

4.5.6. Products that are not compatible with flammable/combustible liquids, as determined by the 18th Civil Engineer Environmental Management shall not be stored together.

4.6. Electrical Installation and Appliances. Ensure compliance with DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, Chapter 8. Electrical installation and appliances will conform to NFPA 70®, *National Electrical Code*®. Only 18 CES electricians or licensed electrical contractors may alter electrical wiring systems. Buffers must be equipped with spark arrestors. No open flame devices are authorized. Use only approved solvents to clean electronics equipment and ensure adequate ventilation and proper wear of Personal Protective Equipment (PPE). Operation of all electrical equipment will be discontinued immediately upon recognition of an unsafe or hazardous condition. Tampering with electrical wiring or fixtures is prohibited. Defective electrical items such as wiring, switches, cords, and fuses will be reported to the Civil Engineer service call desk. An 18-inch clearance will be maintained between electrical light fixtures and combustibles.

4.6.1. High wattage appliances such as refrigerators, microwaves, coffeemakers, heaters, etc., shall be plugged directly into a facility outlet. In foreign countries, a voltage converter may be required to transform the facility power to match that of the host nation, as many times, overseas power systems operate at a higher voltage (220V) and a lower frequency (50 cycles) than the U. S. standard of 110/120 volts and 60 hertz.

4.6.1.1. The facility manager must review and approve high wattage appliances prior to use. In this case, the voltage converter is considered the “direct connection,” or “facility outlet,” required by the guidance. Uses of these voltage converters are therefore permissible, provided neither the rated power, nor current of the transformer is exceeded.

4.6.1.2. Transformers that are obviously damaged, display burn marks around receptacles, and/or have damaged cords will be taken out of service until repaired or replaced by a qualified electrician.

4.6.2. Heat producing appliances, microwaves and refrigerators must be plugged directly into a wall outlet when in use.

4.6.3. Multi-plug power strips or surge protected power strips must not be plugged into each other (Daisy Chain).

4.6.4. Multiple plug adapters shall not be linked to provide additional or more convenient outlets as this could overload electrical circuits. At no time shall a multiple plug adapter or strip be plugged into another multiple plug adapter or strip.

4.6.5. An extension cord or flexible wiring is prohibited from use when:

4.6.5.1. It is used as a substitute for fixed wiring. Extension cords may only be utilized for temporary work and will only be plugged in while the work is being conducted.

4.6.5.2. It penetrates walls, ceilings, floors, doors, windows, or similar openings.

4.6.5.3. It is attached to building surfaces by nails, hooks, staples, glue, or wrapped around beams/columns.

4.6.5.4. It is concealed under carpets.

4.6.5.5. Cord size is smaller than the cord of the item being used.

4.6.5.6. It is plugged into another extension cord.

4.6.5.7. It is hanging by its wire or wires plugged into it.

4.6.5.8. It is used in a coiled position and not fully extended.

4.6.6. All combustible materials such as bedding materials and curtains must be kept a minimum of 18 inches (457 mm) from all electrical outlets to avoid a potential fire hazard.

4.6.7. Portable electric space heaters are permitted when not otherwise restricted by the base energy plan/policy. However, they must be UL listed or equivalent and equipped with a safety tip switch. **Exception:** Patient treatment areas of medical facilities and other hazardous areas as determined by the fire prevention office.

4.6.7.1. Space heaters must be kept at least 36 inches (914 mm) from combustible materials such as paper, furniture, or curtains.

4.6.7.2. Space heaters must be turned off and unplugged when the occupant leaves the facility/room and will not be left unattended.

4.6.7.3. Use of portable kerosene space heaters is prohibited in all Kadena AB facilities. **Exception:** Supplied heaters used in tent operations during training and deployments.

4.6.7.4. All unnecessary electrical equipment will be unplugged when not in use prior to leaving the work area or home. This includes personal heat producing appliances, water heaters, coffee pots, space heaters, tea pots, etc.

4.6.7.5. A clear area of at least 36 (914 mm) inches will be maintained around all circuit breaker panels. Each circuit shall be marked as to what it supports.

4.7. Permits. The fire prevention office shall have the authority to issue permits for the following operations within the boundaries of Kadena AB, Camp Shields, Munitions Storage Area (MSA), and Okuma Recreational Area.

4.7.1. Welding, Cutting, and Brazing. These operations shall not begin prior to fire prevention approval and will comply with DAFMAN 91-203. Written permits, AF Form 592, *USAF Hot Works Permit*, will be issued by the fire prevention office or designee.

4.7.1.1. Approved Hot Work Industrial Shop/Area. A specific area shall be designated and approved by the installation F&ES Flight, 18 WG/SE, and BE for welding and cutting operations.

4.7.1.2. Welding will be performed by qualified personnel and, if possible, be done in booths or rooms constructed for that purpose. A minimum of two serviceable 10-lbs, ABC type fire extinguishers must be present in the immediate area. It shall be of fire resistant or noncombustible construction appropriate for its hazard classification, free of combustible and flammable materials, and segregated from adjacent areas. This area shall be exempt from requiring an AF Form 592 daily.

4.7.1.3. When welding outside of an approved booth or room, the KF&ES will be contacted to inspect the work site and equipment. If the operation is safe, an AF Form 592, *USAF Hot Work Permit*, will be issued per DAFMAN 91-203. If the operation is not deemed safe by the KF&ES, the operation will not begin or will immediately cease pending the abatement of any hazardous condition.

4.7.1.4. Personnel certified by KF&ES Flight may authorize welding, cutting, and brazing operations, using AF Form 592 for this purpose. The installation F&ES Flight shall instruct and qualify welding shop supervisors and other selected personnel. Upon completing the required training, the KF&ES Flight shall certify the individuals in writing. Upon certification, trained personnel shall be qualified to issue permits.

4.7.1.5. All Permits shall be issued only to trained/certified welding supervisor/operators that have received hot work supervisor training from the fire prevention office (18 CES/CEFP). Documentation of training/certification will be annotated on AF Form 483, *Certificate of Competency*, for contractors. Contractors shall obtain a Control Number from 18 CES/CEFP at Bldg 739. The certification and permit shall not exceed 6 months from the date of hot work supervisor training.

4.7.1.6. Shops that perform welding operations on a routine basis may, at the discretion of the fire prevention office, will be trained and issued an official memorandum (annual hot work certification) for a term not to exceed one year. These shops will be identified in writing by the fire prevention office (18 CES/CEFP).

4.7.1.7. Prior to welding or cutting on piping, tanks or containers that contain or have contained flammable liquids, they will be thoroughly purged and vented. Detection equipment will be used to sample for explosive mixtures. The supervisor of the operation will contact 18 WG/SE, KF&ES, and the BE Flight to inspect the work site.

4.7.2. Tar Kettles on Roofs. Under no circumstances will tar kettles be located on the roof of any facility at Kadena AB.

4.8. Open Fires and BBQ Grills. Open Fires, Open Flame Outdoor Fireplaces, and Burning are prohibited without approval from the 18 CES/CEFP using an AF Form 592, *USAF Hot Work permit*, for welding, cutting and brazing operations, **except as follows:**

4.8.1. Charcoal burning barbecues, gas grills, and turkey fryers, when used will be kept at least 15 feet (4.57 m) of a building or 50 feet (15.25 m) from an aircraft or flammable storage locker in no case will barbecues, grills or fryers be used in carports, garages, hangars, under eaves, or under any overhead combustible construction.

4.8.1.1. Only approved type charcoal lighter fluid (combustible liquid only) shall be utilized. Charcoal residue both hot/cold shall be disposed of in a safe and proper manner. Charcoal will not be allowed to burn out in an open grill. It shall be left in a closed grill, or disposed of by soaking with water, then placing in a metal container with a metal lid. Charcoal must be stored in a cool, dry location and lighter fluid must be stored in a flammable locker.

4.8.1.2. Propane bottles will not be stored inside any base facility, except for military family housing where it may be stored inside the supplied storage shed or outside. A maximum of one 20-pound propane gas cylinder will be permitted in family housing per house.

4.8.2. Fire Pits. Residential portable fire pits **do not require a permit**. However, only commercially procured, fully enclosed (**with wire mesh cover or lid**) portable fire pits smaller than 3 feet (.91 m) in diameter may be used as long as they have an unobstructed overhead clearance. This clearance will be maintained at a ground width of 25 feet (7.62 m) from the center of the portable fire pit.

4.8.2.1. Flame-producing devices will not be allowed to operate under combustible canopies or overhead covers. Members assume all risks and may be held liable for any damages or fires resulting from the use of portable fire pits. **Exception:** Only propane grill elements are authorized on high rise apartment balconies and back/front patios of multiplex apartments. The grill may not include any fryer, smoker, solid fuel, or charcoal element for cooking. Fire pits may NOT be used on a balcony.

4.8.3. Open fires other than those expressly mentioned as allowable in this paragraph are prohibited in all areas of real property covered under this instruction. Special events/situations will be addressed on a case-by-case basis and require a two-week notice to the fire prevention office for evaluation. Failure to provide a two-week notice may result in the open fire request being denied.

4.8.4. Trash burning or use of open fires within the limits of the base is prohibited. Exception to policy must be obtained through the fire prevention office.

4.8.5. All facilities, excluding military family housing, military dining facilities, DoDEA facilities, the Chapel, and consolidated club facilities, are not allowed to use open flame instruments (to include Sterno Cans) or devices including candles for decorative purposes unless approved by the IFC or representative for a specific occasion. Use electrical or battery-operated candles where candles are desired for decorative scenes or services. Private organizations, military dining, and consolidated club facilities shall contact fire emergency services flight prior to using candles and will be approved on a case-by-case basis.

4.9. Decorations, Drapes, Curtains, and Flame-Proof Materials. Ensure compliance with DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, Chapter 6, Paragraph 6.2.1.5.

4.9.1. All curtains, drapes, decorations, and floor coverings (whether temporary or permanent) will be of fire-resistant material or will be treated with an approved flame-resistant solution. Request certification from commercial suppliers and ensure an approved flame proof label or certificate is attached.

4.9.2. When curtains, drapes, and decorations are not permanently fire resistant, retreat the material when the items are cleaned or once each year, whichever occurs first, and obtain new certificates.

4.9.3. Ensure fire prevention office approves all decorative scenes (Christmas, Halloween, Thanksgiving, etc.) for places of public assembly.

4.9.4. Live Christmas trees are prohibited inside government facilities. Family housing is authorized to use live Christmas trees. Artificial type trees must be UL/BS approved. Residents are responsible for ensuring live Christmas trees are properly maintained; cut tree stump on an angle and place in a container of water. Electrical lights are prohibited on metal artificial trees. Inside lighted displays and tree lights will be turned off when the building is unoccupied.

4.9.5. Hangings or draperies shall not be placed over exit doors or otherwise be located to conceal or obscure any exit. Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of exit.

4.9.6. Combustible material such as nets, parachutes, and target cloth will not be hung or mounted on walls or ceilings as interior room decorations.

4.10. Fireworks. Fireworks are prohibited on real property covered by this instruction. **Exception:** Authorized training devices and public displays of fireworks. Fireworks displays must be coordinated at least one month in advance with the fire prevention office.

4.10.1. Displays of fireworks will be conducted by qualified explosive handling personnel or licensed contractors. These operators or contractors have the primary responsibility for safety and fire prevention. Fire protection on Kadena AB will be provided by KF&ES for the event. However, the operator or contractor must provide a sufficient size and quantity of portable fire extinguishers.

4.11. Fire Doors. All facility fire doors will be maintained IAW NFPA 101®, *Life Safety Code*®, and NFPA 80, *Standard for Fire Doors and Other Opening Protectives*. Facility managers will ensure all fire doors are in working order and are serviceable. When fire doors are out of service, facility managers will ensure emergency work orders are submitted to CE customer service using TRIRIGA database. Fire doors shall remain closed unless they are held open by a device that releases automatically upon activation of the fire alarm detection system.

4.11.1. Areas around fire doors will be kept clear of anything that would obstruct or interfere with the free operation of a door.

4.11.2. Fusible links and heat-actuated release devices will not be painted.

4.12. Emergency Lighting. Emergency lighting shall be provided in the means of egress in all buildings as required by NFPA 101®, *Life Safety Code*®, Chapter 7, and Paragraph 7.9.

4.12.1. Emergency lighting shall comply and tested IAW NFPA 101®, *Life Safety Code*®.

4.13. Fire Lanes/Fire Vehicle Accessibility. Fire lanes shall be provided for all buildings that are set back more than 150 feet (45.75 m) from a public road or exceed 30 feet (9.14 m) in height and are set back over 50 feet (15.25 m) from a public road.

4.13.1. Fire lanes will be provided to allow clear access for fire apparatus to connect to fire protection equipment. (i.e., standpipe and sprinkler connections). Motor vehicles will not park on streets, passageways, or fire lanes in such a way as to block access of fire apparatus.

4.13.2. Fire lanes shall not be less than 20 feet (6.1 m) of unobstructed width, able to withstand live loads of fire apparatus and have a minimum of 13 feet 6 inches (4.1 m) of vertical clearance. An approved turnaround for fire apparatus shall be provided where an access road is a dead end and is more than 150 feet (45.8 m) in length. The turnaround shall have a minimum centerline radius of 50 feet (15.3 m). The grade of the fire lane shall be within the limits established by the authority having jurisdiction. **Exception 1:** T or Y turnaround arrangements are permitted. **Exception 2:** When acceptable to the AHJ, turnaround arrangements other than a cul-de-sac may be used.

4.13.3. Fire lanes shall be marked with freestanding signs or marked curbs, sidewalks, or other traffic surfaces that have the words "**FIRE LANE NO PARKING**" painted in contrasting colors at a size and spacing approved by the AHJ.

4.13.4. Parking is not allowed in fire lanes; fire lanes must be always free from obstructions. Should it be necessary to park in a fire lane for vehicle loading or unloading, the operator must remain with the vehicle. Any vehicles found to be in violation of this will have the license plate number reported to 18th Security Forces Squadron for appropriate action. If an unattended vehicle is left parked in a fire lane for more than 15 minutes, it will be towed at the owners' expense.

4.13.5. Vehicles shall park no closer than 20 feet (6.1 m) from any fire hydrant, standpipe, or sprinkler connection. Additionally, vehicles shall park no closer than 50 feet (15.25 m) from any area designated by a sign stating no smoking or open flame within 50 feet (15.25 m) unless required for work in that area. **Note:** This is to discourage drivers from parking next to diesel storage tanks, liquid petroleum gas, and other flammable/explosive storage areas.

4.13.6. Streets will not be barricaded or otherwise obstructed without prior notification of the 18 CES/CEFP.

4.14. Warehousing and Storage of Materials. Ensure compliance with DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, and NFPA 101®, *Life Safety Code*®. Maintain adequate fire aisles in all warehouses.

4.14.1. Storage of combustible materials or flammable liquids underneath stairways is prohibited. Storing or parking motorcycles, scooters, and barbecue grills under stairways (interior or exterior) is prohibited.

4.14.2. Fire escapes, stairways and landings must be kept free of stored items.

4.14.3. Gasoline or diesel-powered Materials Handling Equipment (MHE) parked in general purpose warehouses must be approved by the Group Commander responsible for the designated warehouse, with recommendations by the installation F&ES Flight, BE and 18 WG/SE.

4.15. Flammable Gasses. Storage of flammable gases in buildings, inside rooms, or outside areas will be IAW NFPA 1, *Fire Code*; NFPA 55, *Compressed Gases and Cryogenic Fluids Code*; NFPA 58, *Liquefied Petroleum Gas Code*; DAFMAN 91-203 *Air Force Occupational Safety, Fire, and Health Standards*, and NFPA 99, *Health Care Facilities Code*.

4.15.1. Liquid petroleum gas cylinders used for barbecue grills may be stored outside of buildings provided cylinders are stored in a lockable ventilated metal locker to prevent tampering with the valve and pilferage of the cylinder.

4.15.2. All compressed gas cylinders, full or empty, will be stored in an upright position, with the dome cap in place, and firmly secured to prevent them from falling or accidentally tipped over.

4.15.3. Oxygen and acetylene gas cylinders shall not be stored within 20 feet of combustible materials or separated by a one-hour fire rated wall. Storage areas will be separated and posted according to their hazard group. The only exception is when oxygen and acetylene cylinders are secured on a welding cart with regulator and hoses attached. If the cart is not used several times a week, the regulators shall be removed, and the cylinders properly stored.

4.16. Fire Hydrants. 18 CES Water and Fuel Systems Maintenance is responsible for the water distribution system. Fire hydrants must be inspected and maintained IAW UFC 3-601-02, *Fire Protection Systems Inspection, Testing, and Maintenance*, NFPA 24, *Standard for the Installation of Private Fire Service Mains and Their Appurtenances*, and NFPA 291, *Recommended Practice for Fire Flow Testing and Marking of Hydrants*.

4.16.1. 18 CES Water and Fuel Systems Maintenance will notify the KF&ES ECC of any proposed water curtailment that will affect fire hydrants. An “Out of Service” sign will be placed on an inactive fire hydrant and removed when it is returned to service.

4.16.2. Fire hydrants are for use by KF&ES personnel ONLY and will not be used indiscriminately for other purposes. KF&ES is the approval authority for use of fire hydrants.

4.17. Fire Detection, Suppression and Alarm Systems. 18 CES Alarm Shop and 18 CES Water and Fuel Systems Maintenance provides all services for fire detection, suppression, and alarm systems maintenance IAW applicable NFPA, UFC 3-600-01, UFC 3-601-02, and Host Nation Standards.

4.17.1. When fire systems are placed out of service or placed back- in service, alarm maintenance engineers will notify the ECC, fire prevention office, and facility managers with the date out of service, the problem, and estimated time back in-service.

4.17.2. The appropriate alarm maintenance personnel will ensure proper documentation of all required inspections, maintenance and repairs and will provide a monthly report to the fire prevention office.

4.17.3. Only KF&ES personnel and 18 CES electricians are authorized to open and operate fire alarm panels. It is the responsibility of 18 CES Fire Alarm Maintenance (CEOFA) to conduct annual servicing on all fire alarm systems and annotate the servicing on an inspection sheet left inside of each panel.

4.17.4. Facility Managers and occupants must not tamper with or obstruct fire detection devices and alarm equipment. Compliance with the following provisions will help ensure fire detection systems function as designed and provide early detection of fire.

4.17.4.1. Painting of fire detection devices is prohibited.

4.17.4.2. Items will not be stored within 18 inches of fire or smoke detectors.

4.18. Fire Protection Engineering Construction, Renovation, Alterations, and Additions. Ensure Compliance with DAFI 32-2001, NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*, UFC 3-600-01, Engineering Technical Letters, relevant 91 series documents, Technical Orders, DoD Directives and Host Nation Standards. The fire prevention office coordinates on all design drawings to signify review and firefighting operational recommendations are incorporated. This coordination does not indicate fire protection engineering design acceptance.

4.18.1. All organizations are responsible for coordinating all projects (new/upgrade) through CES/Customer Service Work Order Review Board. This includes self-help and Construction and Training Squadron projects. Coordination will ensure compliance with UFC 3-600-01 and applicable Host Nation standards. This requirement applies to all Air Force owned facilities, including those used by other agencies.

4.18.2. All organizations with a commercial cooking requirement shall submit a work request through TRIRIGA database for a work order number, and coordinate purchase of new or replacement commercial cooking equipment.

4.18.3. Acceptance Tests. Prior to final acceptance of any new fire detection or suppression system, the system will be tested in the presence of an KF&ES official, a fire alarm technician, and a utility shop representative (if a sprinkler system is installed). The contractor must provide notification of a final acceptance test to the fire prevention office no less than 2 weeks prior to the test for scheduling.

4.18.4. Prior to and after performing tests or maintenance on fire detection systems or fire suppression systems, technicians will inform the KF&ES ECC and the facility manager. The facility manager will notify the building occupants.

4.19. Contractor Operations. The prime contractor performing construction on Kadena AB will comply with all applicable provisions of this guidance, AFIs, UFC 3-600-01, UFC 3-600-02, NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*, and Host Nation Standards.

4.19.1. Brief fire prevention office on the type, scope, and sequence of work to be accomplished under contract during the pre-construction conference. Contractor will receive a briefing on fire prevention guidance applicable to the work being performed.

4.19.2. Construction and project monitors will ensure compliance with fire prevention regulations and measures on all contractor operations under their jurisdiction.

4.19.3. All contractors conducting work on base shall go through the established coordination process prior to beginning work and provide a minimum of five workdays notification. Coordination process will begin with CES Project Execution Team who provides the contractor with proper documentation and guidelines to follow while on the installation.

4.19.4. Any changes, modifications, or additions to fire alarm and suppression systems must include design drawings and materials list. Once approved by the fire prevention office and CES Project Execution Team, work must be performed by licensed fire alarm and suppression technicians.

4.19.5. CES Operations alarm technicians will coordinate alarm and suppressions outages with the ECC and perform acceptance inspection of all work performed.

4.19.6. When the above guidelines are not followed, circumstances may require the operation or work to be stopped and/or delayed until the proper coordination is taken by the main contractor at the user's expense. For further information, contact the appropriate 18 CES/CEC project manager.

4.20. Unannounced Exercises. Exercises requiring fire emergency services support must be coordinated in advance to ensure fire protection capability is available without impacting mission requirements. IAW DAFI 32-2001, *Fire and Emergency Services (F&ES) Program*, the Fire Chief or Senior Fire Officer (SFO) on duty must receive at least a 30-minute prior notification when exercises involve firefighting vehicles, equipment, or personnel.

4.21. Special Events. Any event that utilizes an Air Force facility not designed for public assembly will require advance coordination and approval from 18 CES/CEF and 18 WG/SE.

4.21.1. Contact the fire prevention office and the 18 WG/SE when special events are held to schedule a fire prevention and safety visit. Prior notice of 14 calendar days shall be given for events such as concerts, haunted houses, or other similar special gatherings. Follow up safety visit must be conducted within five working days prior to event. This provides fire prevention time to coordinate with 18 WG/SE, evaluate the special event, and conduct a site visit.

4.21.2. When 18th Wing Commander (18 WG/CC) approval is required, route the package through all approving agencies. The fire prevention office and 18 WG/SE must endorse package before 18 WG/CC signs off on the event. Providing fire prevention with less than the required notice prior to an event could result in event cancellation or delay.

4.21.3. The fire prevention office will verify the occupancy load, evacuation corridor distance requirements, and other fire prevention requirements to ensure a safe event.

4.21.4. Prior to utilizing a facility for special events that does not comply with fire prevention requirements, an AF Form 4437, Deliberate Risk Assessment (DRA) Worksheet must be submitted and approved by the appropriate authority as described in DAFI 32-2001, *Fire and Emergency Services (F&ES) Program*.

4.22. Fire Investigations. Section Chief, Assistant Chief of Fire Prevention represents KF&ES for all fire investigations.

4.23. Emergency Response Involving Fuel Spills. Fuel spill classification and emergency procedures are described in Technical Order (TO), 00-25-172, Ground Servicing of Aircraft and Static Grounding/Bonding. Cleanup procedures shall be established IAW the installation environmental management office guidance.

4.23.1. Regardless of size, fuel spills will be immediately reported to KF&ES via 911 or the most expedient manner possible.

4.23.2. Fuel Dispensing System. A clearly identified and easily accessible switch(es) or circuit breaker(s) shall be provided at a location remote from dispensing devices, including remote pumping systems to shut off the power to all dispensing devices in the event of an emergency.

4.23.3. During and after a fuel spill, discontinue all maintenance and other operations until Incident Commander on scene declares the area/building is safe for further operations.

4.23.4. Fuel shall not be drained from any aircraft onto the ramp or allowed to run into sewer lines, ditches, etc. Drip cans and pans shall be used to catch fuel leaking from aircraft. Containers shall be bonded and grounded.

Chapter 5

EMERGENCY FIRE REPORTING

5.1. Emergency Reporting Procedures. Early detection and notification of fire is critical. Delayed or improper reporting has, in many cases, resulted in excessive fire damage and/or loss of life. All personnel on Kadena AB (including contractors and base housing) will report all emergencies immediately to the ECC. This includes all fires that are already extinguished. The ECC can be contacted by dialing and taking the following actions.

Table 5.1. Emergency Reporting Telephone Numbers.

Emergency Agency	Method	Telephone Number
Emergency Communications Center (ECC)	Government/DSN	DSN: 634-6011
Emergency Communications Center (ECC)	Commercial/Cell Phone	098-938-1111; 634-6011
Fire, Police or Medical Emergencies	Kadena 911 System	911 from base phone
Fire, Police or Medical Emergencies	On Kadena Commercial/Cell Phone	098-934-5911
Fire, Police or Medical Emergencies	Camp Foster/Lester 911 System	098-911-1911

5.1.1. All fires, even after extinguishment, must be reported immediately to KF&ES regardless of size or type. Upon recognition of a fire, immediately sound the alarm, evacuate the facility, call KF&ES using 911, or use the methods above and direct responding crews upon arrival to the scene.

5.1.1.1. Give location by building/facility number, street address, type emergency (fire, alarm activation, Medical, etc.), caller's name and information requested by ECC operator.

5.1.1.2. Some manual fire alarm systems installed in base facilities are "local alarms" only. Consequently, they only alert the occupants of that facility. Therefore, personnel must notify KF&ES by either calling 911 from a hardline phone on base or 098-934-5911 from a cell phone, or use the methods listed above. Follow directions provided by the ECC operator.

5.1.2. Personnel shall immediately evacuate the building whenever the fire alarm activates IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, and OSHA 29 CFR 1910.38. Installation Commander may approve in writing, with coordination from the 18 WG/SE and F&ES Flight, any Mission Essential (ME) positions authorized to remain in their work center during fire alarm activation. Upon direction of the SFO on scene, all personnel shall immediately evacuate to include those ME positions. Note: Command post and/or job control personnel are not considered ME positions. Do not utilize the fire alarm system for gas leaks or bomb threats; utilize the runner system to evacuate occupants.

5.2. False Reporting. Falsely reporting emergencies is prohibited and disciplinary and/or criminal action will be taken as appropriate. Occupants will not tamper with, alter, or activate any component of any installed fire alarm and/or suppression system except during an actual fire condition. Violations are subject to administrative adverse actions and/or criminal punishment, including but not limited to debarment, dismissal from base housing or punishment under the UCMJ or other appropriate criminal penal code.

Chapter 6

AIRCRAFT FACILITIES AND HANGARS

6.1. Aircraft Facilities and Hangars. Will only be utilized for their authorized designed purpose (i.e., aircraft sheltering, maintenance, and storage), IAW AF directives, national standards, and UFC 3-600-01.

6.2. Fuel Cell Maintenance. Aircraft fuel cell maintenance is authorized only in approved aircraft hangars. Do not use, under any circumstances, power units with combustion-type heater blowers to purge fuel cells or other flammable material containers.

6.3. Servicing. When servicing aircraft with liquid or gaseous oxygen, ensure all sources of power except as specified in TO 00-25-172, are turned-off and isolated. No flame or spark producing device is permitted within 50 feet of oxygen servicing operations. Do not service aircraft oxygen systems or drain the systems within 50 feet of hangars, structures, or fuel spills.

6.4. Emergency Action Plan for Aircraft. The facility manager, maintenance officer, and supervisor will establish an EAP that covers fire safety precautions for aircraft in hangars, emergency removal, reporting procedures for aircraft placed on jacks and potential fire or explosive hazards. The EAP will be validated by the fire prevention office and 18 WG/SE. Aircraft should be parked to permit rapid removal.

6.5. Fire Vehicle Access to Aircraft Facilities and Hangars. At all times, fire lanes will be unobstructed on at least two sides of every hangar. Automotive parking areas used for Fire Emergency Services access must include at least one aisle, 20 feet wide with adequate turning radius for fire apparatus. Air Force policy prohibits parking of vehicles or equipment on either side of the door encasement of all main hangar doors where the tracks extend to each side.

6.5.1. Aircraft hangar overstuffing prior to, and during, increasing typhoon conditions is authorized only if **no** maintenance, regardless of the reason, is performed on the aircraft inside these facilities.

6.6. Vending Machines. Vending machines are not authorized on hangar floor area.

6.7. Spray Painting. Spray painting of aircraft will be accomplished IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*. Deviations will be requested in writing to the fire prevention office and 18 WG/SE.

6.8. Electrical Driven Equipment. All electrical equipment used in aircraft maintenance facilities will be of the approved type. Electrical equipment used within the first 18-inches of the floor space will be rated Class 1, Division 2 areas.

6.9. Vehicles Equipped with Catalytic Converters. No catalytic converter-equipped vehicles are permitted in hangars.

6.10. Fire Extinguisher Program. Ensure compliance with DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, Chapter 6.

6.10.1. Flight line fire extinguishers (Novec 150 lbs.) will be checked daily by the owning organization. Unserviceable units shall be delivered to Bldg 3489 by the owning organization and contact the fire prevention office at 634-3473.

6.10.2. During typhoon conditions, using organizations are responsible for weatherproofing (housing in shelters or securing) wheeled type flight line fire extinguishers.

6.10.3. Flight Line Fire Extinguisher Training. Newly assigned aircraft maintenance and servicing personnel will receive initial hands-on training on the use of the 150-lb Novec flight line fire extinguisher. After initial training, personnel will receive annual refresher education from designated unit personnel.

DAVID S. EAGLIN
Brigadier General, USAF
Commander

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

- DoDI 1010.10, *Health Promotion and Disease Prevention*, 28 April 2014
- DoDI 6055.06, *DoD Fire and Emergency Services (F&ES) Program*, 3 October 2019
- AFPD 32-20, *Fire and Emergency Services*, 10 July 2018
- DAFI 32-2001, *Fire and Emergency Services (F&ES) Program*, 28 July 2022
- AFI32-6000, *Housing Management*, 18 March 2020
- AFI 33-322, *Records Management and Information Governance Program*, 10 March 2020
- AFI 34-144, *Child and Youth Programs*, 2 July 2019
- AFI 48-104, *Tobacco Free Living*, 11 July 2019
- DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, 25 March 2022
- NFPA 1, *Fire Code*, 2021 Edition
- NFPA 10, *Standard for Portable Fire Extinguishers*, 2022 Edition
- NFPA 17A, *Standard for Wet Chemical Extinguishing Systems*, 2021 Edition
- NFPA 24, *Standard for the Installation of Private Fire Service Mains and Their Appurtenances*, 2022 Edition
- NFPA 30, *Flammable and Combustible Liquids Code*, 2021 Edition
- NFPA 55, *Compressed Gases and Cryogenic Fluids Code*, 2023 Edition
- NFPA 58, *Liquefied Petroleum Gas Code*, 2020 Edition
- NFPA 70®, *National Electrical Code®*, 2023 Edition
- NAPA 80, *Standard for Fire Doors and Other Opening Protectives*, 2022 Edition
- NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, 2021 Edition
- NFPA 99, *Health Care Facilities Code*, 2021 Edition
- NFPA 101®, *Life Safety Code®*, 2021 Edition
- NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*, 2019 Edition
- NFPA 291, *Recommended Practice for Fire Flow Testing and Marking of Hydrants*, 2022 Edition
- UFC 3-600-01, *Fire Protection Engineering for Facilities*, 8 August 2016
- UFC 3-601-02, *Fire Protection Systems Inspection, Testing, and Maintenance*, 7 October 2021

Prescribed Forms

None

Adopted Forms

AF Form 483, *Certificate of Competency*

AF Form 592, *USAF Hot Work Permit*

DAF Form 847, *Recommendation for Change of Publication*

AF Form 1487, *Fire Prevention Visit Report*

AF Form 4437, *Deliberate Risk Assessment Worksheet*

Abbreviations and Acronyms

AB—Air Base

AFCEC—Air Force Civil Engineer Center

AFI—Air Force Instruction

AFIMSC—Air Forces Installation and Mission Support Center

AFPD—Air Force Policy Directive

AFS—Air Force Station

AHJ—Authority Having Jurisdiction

ARFF—Aircraft Rescue Firefighting

BFM—Base Fire Marshal

BLDG—Building

BS—British Standards

CAP—Corrective Action Plan

CE—Civil Engineer

CEO—Civil Engineer Operations

CFR—Code of Federal Regulations

DoD—Department of Defense

DoDEA—Department of Defense Education Activity

DRA—Deliberate Risk Assessment

DTA—Designated Tobacco Use Areas

EAP—Emergency Action Plan

ECC—Emergency Communications Center

ESOHC—Environmental Safety Health Committee Council

ETL—Engineer Technical Letter

F&ES—Fire and Emergency Services
FDC—Fire Department Connection
FPE—Fire Protection Engineer
FSD—Fire Safety Deficiency
GSA—General Services Administration
HVAC—Heating, Ventilation and Air Condition
IAW—In accordance with
IFC—Installation Fire Chief
KF&ES—Kadena Fire and Emergency Services
ME—Mission Essential
MFH—Military Family Housing
MHE—Materials Handling Equipment
MSA—Munitions Storage Area
NFPA—National Fire Protection Association
OPR—Office of Primary Responsibility
OSHA—Occupational Safety and Health Administration
PACAF—Pacific Air Forces
POC—Point of Contact
PPE—Personal Protective Equipment
RM—Risk Management
SFO—Senior Fire Officer
TCCOR—Tropical Cyclone Condition of Readiness
UCMJ—Uniform Code of Military Justice
UFC—Unified Facilities Criteria
UL—Underwriters Laboratories

Terms

Facility Managers—Individuals assigned responsibility for facilities under the functional manager's control. The functional manager will appoint these individuals and their names will appear on official civil engineer real estate records.

Functional Managers—The operating officials at the wing and Group Commander's staff exercising managerial control of an activity or operation. Tenant units are responsible for preparation and maintenance of their unit's hazard abatement plan.

Installed Fire Protection Systems—Systems installed in various facilities for the purpose of fire detection, alarm and/or suppression of fire.

Occupant Load—The maximum number of persons that may occupy a building, or portion thereof, at any one time.

Fire Prevention—The measures directed toward avoiding the occurrence of a fire.

Fire Protection—Includes all aspects of engineering, prevention, suppression, and related rescue operations.

Fire Safety Deficiency (FSD)—A condition which reduces fire safety below an acceptable level but of itself cannot cause a fire. This condition could cause a delay in the detection of a fire or increase the severity of the damage should a fire occur.

Attachment 2

**CLOSING CHECKLIST FOR PLACES OF PUBLIC ASSEMBLY, RECREATIONAL,
EDUCATIONAL AND MERCANTILE FACILITIES**

Table A2.1. Closing Checklist for Places of Public Assembly, Recreational, Educational and Mercantile Facilities.

	YES	NO	N/A
1. Is all trash removed and placed in approved containers outside the building?			
2. Have all restrooms and closets been inspected and rendered fire safe?			
3. Are all smoking material receptacles emptied and properly disposed of outside building? (If applicable)			
4. Have all removable cushions, in chairs and sofas, been up ended and inspected for smoldering smoking material? (If applicable)			
5. Are all soiled linens or dirty cleaning rags stored in noncombustible closed containers?			
6. Is all cooking equipment cleaned daily to prevent accumulation of grease? DAFMAN 91-203			
7. Have all electrically operated devices not essential to the continuity of after-hours status, such as, cooking equipment, vending machines, juke boxes, TVs, video, etc., been disconnected from power sources?			
8. Are all mops, brooms and cleaning materials properly stored in storage room with the door closed or stored outside of building?			
9. Are all flammable liquids properly stored in approved flammable storage cabinets or removed to outside of the building?			
10. Have all open-flame devices been extinguished, allowed to cool, and properly stored? (Open flame devices must be approved by fire prevention)			
11. Has the entire facility been checked to ensure no one is left in the building?			
Note: Fire prevention inspectors are available for lectures and demonstrations upon request. Contact the fire prevention section at 634-3473 or at Bldg 739.			

Attachment 3

OPERATIONAL CHECKLIST FOR PLACES OF PUBLIC ASSEMBLY

Table A3.1. Operational Checklist for Places of Public Assembly.

	YES	NO	N/A
1. Are all newly hired employees immediately indoctrinated in fire prevention duties and responsibilities and annually thereafter IAW DAFMAN 91-203?			
2. Are all exit doors unlocked, unobstructed, working properly and equipped with approved panic hardware?			
3. Is this checklist posted in the Facility Folder?			
4. Is proper fire reporting telephone number (911) decal attached to each telephone?			
5. Are all exit lights operative? Are exit light bulbs available for replacement?			
6. Is seating neatly arranged and are unobstructed aisles maintained to permit exit in case of fire?			
7. Are fire alarm pull stations visible and unobstructed?			
8. Are all fire extinguishers serviceable and unobstructed?			
9. Are all range hood exhaust fans in cooking facilities operational and with filters installed? Are there backup filters on hand?			
10. Are hood exhaust filters cleaned daily and annotated?			
11. Are all deep fat fryer thermostats tested annually by an approved agency? Facility manager keeps copy in office.			
12. Are covers available and located by each deep fat fryer for immediate use in case of a grease fire?			
13. Have open flame and temporary decorations been approved by the Fire Chief or his/her designated representative?			
14. Is there a minimum of 18-inches clearance maintained between storage material, light fixtures, sprinkler heads, heat, and smoke detectors?			
15. Are combustible cleaning supplies such as rags, steel wool and liquids kept in closed-metal containers and identified as to their contents?			
16. Are good housekeeping practices established and enforced?			
17. Are adequate self-closing (smoking material) receptacles available for disposal of smoking material? (If applicable)			
18. Are adequate noncombustible containers available for soiled linens?			
19. Are adequate waste receptacles provided in restrooms?			
20. Are emergency exit lighting units tested monthly for operation?			
21. Are kitchen exhaust ductwork cleaning dates documented in the fire prevention folder?			
22. Is the six-part fire prevention folder being properly maintained?			
23. Are all flammable liquids properly stored in approved flammable-storage cabinets or outside of the building?			

<p>24. Is the fire evacuation plan current and approved by the Fire Chief, Assistant Chief of Fire Prevention, or designated representative? Furnish one copy of the plan to the fire prevention office.</p>			
<p>25. The use of multiple extensions cords linked together (daisy chained) is prohibited. Multiple outlet devices may be used if they are —UL or —FM approved with fuse/circuit breaker protection not to exceed 15 amperes. The device must be in perfect repair with no modifications and be limited to appliance inputs.</p>			
<p>Note: Fire prevention inspectors are available for lectures and demonstrations upon request. Contact the fire prevention section at 634-3473 or at Bldg 739.</p>			

Attachment 4

OPERATIONAL CHECKLIST FOR AIRCRAFT HANGARS AND MAINTENANCE SHOPS

Table A4.1. Operational Checklist for Aircraft Hangars and Maintenance Shops.

	YES	NO	N/A
1. Is the fire evacuation plan current and approved by the Fire Chief, Assistant Chief of Fire Prevention, or designated representative? Furnish one copy of the plan to fire prevention.			
2. Are all electrical motors, appliances and auxiliary machinery approved for use in hazardous locations?			
3. Are all electrical wiring, receptacles, switch panels, fuse boxes, etc., properly installed and maintained in good repair?			
4. Are aircraft fire evacuation plans prepared and posted?			
5. Are all fire lanes for evacuation of aircraft, to include fire suppression system access, both inside and outside of building, kept clear of obstructions and properly marked?			
6. Are fire alarm pull stations visible and unobstructed?			
7. Is fire detection/protection equipment in place, serviceable and unobstructed?			
8. Are designated smoking areas properly segregated, furnished with adequate self-closing (smoking material) receptacles and properly supervised?			
9. Are "NO SMOKING" signs posted in areas where smoking is prohibited?			
10. Are adequate well-labeled, metal-covered containers available for disposal of waste material?			
11. Are separate-marked, self-closing containers provided for soiled rags, cloth, or clothing?			
12. Are drip pans provided and placed under leaks?			
13. Are oil or hydraulic spills cleaned up in a timely manner?			
14. Are only approved absorbents used on oil spills?			
15. Are unsafe operations being performed in the building?			
16. Are tow bars and/or snatch cables available and are aircraft parked so that rapid evacuation is possible?			
17. Are all exit doors in good operational condition and properly marked?			
18. Are all hallways, aisles, and stairways adequately lighted and clear of obstructions?			
19. Hallway fire doors will not be blocked or propped open.			
20. Are good housekeeping practices established and enforced?			
21. Is a minimum of 18-inches clearance maintained between storage material, light fixtures, sprinkler heads, heat, and smoke detectors?			

22. Are mops, brooms, etc., properly stored in well-ventilated areas?			
23. Are all flammable/combustible storage area containers complying with existing directives and only a 1-day supply kept in work area?			
24. Is proper fire reporting telephone number (911) decal attached to each telephone?			
25. Are all personnel briefed on what to do in case of fire? Is this checklist posted in Facility Folder?			
26. Are all fire hazards that cannot be corrected by assigned personnel reported to the Fire Prevention Section, 634-3473 or at Bldg. 739			
27. Are all emergency exit signs, extinguishers, and lighting units checked and documented monthly for operation?			
28. The use of multiple extensions cords linked together (daisy chained) is prohibited. Multiple outlet devices may be used if they are —UL or —FM approved with fuse/circuit breaker protection not to exceed 15 amperes. The device must be in perfect repair with no modifications and be limited to appliance inputs.			
<p>Note: Fire prevention inspectors are available for lectures and demonstrations upon request. Contact the fire prevention section at 634-3473 or at Bldg 739.</p>			

Attachment 5

OPERATIONAL CHECKLIST FOR MERCANTILE FACILITIES

Table A5.1. Operational Checklist for Mercantile Facilities.

	YES	NO	N/A
1. Are all exit doors unobstructed, working properly and equipped with approved panic hardware?			
2. Are all exit lights operative and are spare bulbs available?			
3. Are all hallways, aisles, and stairways adequately lighted and clear of obstruction?			
4. Are fire alarm pull stations visible and unobstructed?			
5. Are fire extinguishers in proper location, serviceable, unobstructed, and inspected monthly?			
6. Are all personnel knowledgeable of fire reporting procedures and first-aid fire extinguisher operation? (REF: DAFMAN 91-203)			
7. Is the proper fire reporting telephone number (911) decal attached to each telephone?			
8. Are newly hired employees including concessionaires initially indoctrinated in fire prevention practices and annually thereafter?			
9. Are all fire hazards that cannot be corrected by assigned personnel reported to the fire prevention office, 634-3473 or at Bldg. 739?			
10. Are adequate self-closing (smoking material) receptacles available for disposal of smoking materials?			
11. Are —NO SMOKING signs posted in all areas where smoking is prohibited?			
12. Are good housekeeping practices established and enforced?			
13. Is this checklist posted in Facility Folder?			
14. Is the required 18-inch clearance maintained between storage materials, light fixtures, sprinkler heads, heat, and smoke detectors?			
15. Is there an accumulation of waste and rubbish in storage closets?			
16. Are all wastebasket and trash container contents removed from building at the close of each workday and placed in approved containers outside?			
17. Are combustible cleaning supplies such as rags, steel wool and liquids kept in closed-metal containers and identified as to their contents?			
18. Are all flammable liquids properly stored in approved flammable storage cabinet or outside of building? (Note: Unopened display containers are exempt in places of sale.)			
19. Are all electrically operated devices not essential to the continuity of after-hours status, such as cooking equipment, vending machines, juke boxes, TVs, video games, etc., disconnected from power source?			
20. Is there any defective wiring or loose connections, which may constitute a fire hazard?			

21. Are areas in buildings occupied by concessionaires checked to ensure that such personnel maintain fire safety standards?			
22. Is the entire facility checked to ensure no one is left in the building?			
23. Are all emergency exit lighting units checked monthly for operation?			
24. Is the fire prevention folder up to date?			
25. Is the fire evacuation plan current and approved by the Fire Chief, Assistant Chief of Fire Prevention, or designated representative? Furnish one copy of the plan to fire prevention.			
26. The use of multiple extensions cords is prohibited. Multiple outlet devices may be used if they are —UL or —FM approved with fuse/circuit breaker protection not to exceed 15 amperes. The device must be in perfect repair with no modifications and be limited to appliance inputs.			
<p>Note: Fire prevention inspectors are available for lectures and demonstrations upon request. Contact the fire prevention section at 634-3473 or at Bldg 739.</p>			

Attachment 6

DORMITORY/BILLETING FIRE PREVENTION CHECKLIST**Table A6.1. Dormitory/Billeting Fire Prevention Checklist.**

	YES	NO	N/A
1. Do not use extension cords as permanent wiring.			
2. Cooking is prohibited in rooms except in specially designated kitchen areas. This does not include coffee makers or microwave ovens.			
3. Tampering with fire detection or protection systems is prohibited.			
4. Individuals will not store gasoline in dormitory or billeting rooms.			
5. Cleaning solvents will be nonflammable. Under no circumstances will gasoline be used for cleaning.			
6. Rags and steel wool that are used for cleaning purposes should be stored in metal containers.			
7. Replace defective appliance cords with ones of appropriate size.			
8. The use of multiple extensions cords is prohibited. Multiple outlet devices may be used if they are —UL or —FM approved with fuse/circuit breaker protection not to exceed 15 amperes. The device must be in perfect repair with no modifications and be limited to appliance inputs.			
9. Only metal or other non-combustible type wastebaskets will be used inside rooms. Do not place cigarette butts or ashes in wastebaskets.			
10. Smoking on, or in bed, is prohibited. Violators are subject to punishment under Articles 92 and 108 of the UCMJ. Ashtrays will be made of fire-resistant material with cigarette retainer sections. Do not leave cigarettes burning in unattended ashtrays.			
11. Are adequate smoking material receptacles available for disposal of smoking material?			
12. Disconnect electrical appliances when not in use.			
13. Open flame lighting devices, candles and incense/sage are prohibited in any room. Special permission may be granted for religious purposes.			
14. Hanging items on or blocking smoke detectors is prohibited.			
15. Do not run electrical cords under carpet or rugs or any place where they could be damaged.			
16. Keep combustible material at least 18 inches from light fixtures.			
17. Operation of kerosene lamps is prohibited.			
18. Stairwell smoke doors must be kept closed. Do not block open.			
19. Are all hallways and stairways adequately lighted and clear of obstruction?			
20. Wall posters will not cover more than 25 percent of the wall area and 10 percent of ceiling area. Wall decorations must be flush mounted with no free-hanging edges.			

21. Storage of stereo boxes, vehicle batteries, gasoline, paint, oil, and grease are prohibited in rooms.			
22. Check fire extinguishers and conduct operational checks of emergency exit lighting units monthly.			
23. Check operation of panic hardware devices daily.			
24. Do not barbecue on balconies, stairwell landings or within 10 feet of building.			
25. Is the applicable Dormitory/Billeting Fire Prevention Checklist, posted in Facility Folder?			
26. Is <i>Smoking in Bed is Prohibited</i> , posted in Facility Folder, and briefed during in processing?			
<p>Should a fire occur or if a smoke detector is heard, take the following actions:</p> <ol style="list-style-type: none"> 1. Activate a fire alarm pull station. 2. Dial 911, 098-934-5911 from a cellular device. 3. Give ECC operator your building number, location of the fire, name and phone number and type of fire (building, automobile, physical injury, etc.). 4. If possible, try to extinguish the fire using available fire extinguishers. If you cannot extinguish the fire, get out. 5. Have someone direct firefighters to fire or emergency location. 6. Ensure everyone is out of building or area. Ensure everyone evacuates to a safe distance, away from traffic and firefighting operations. <p>Note: Fire prevention inspectors are available for lectures and demonstrations upon request. Contact the fire prevention office at 634-3473 or at Bldg 739.</p>			