

10XX	Care and Use of Fire Apparatus (<u>LEGACY</u>)	
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This policy is intended to consolidate all legacy articles and policy memorandums into a single, unified framework for internal use within the department. This policy does not enlarge an employee's civil liability in any way and should not be interpreted as creating a higher duty of care, in an evidentiary sense, with respect to third-party civil claims against employees. Any proven violation of this policy shall serve solely as a basis for non-judicial administrative action by the department, in accordance with applicable laws governing employee discipline.

Related Policies: Article I Department Station Procedures, sections 100.01 through 186.02

Applicable HI Statutes:

ARTICLE II
CARE AND USE OF FIRE APPARATUS AND RELATED EQUIPMENT

- 200.01** USAGE OF APPARATUS. Company Commanders shall not leave quarters with the apparatus for any purpose other than response to alarms and scheduled Department functions, nor take it off duty or place it out of service without receiving permission from the appropriate Assistant Chief. During changing of hose, refilling of water tanks, refueling, etc., the apparatus shall not be considered out of service when it contains at least 50% of its complement of hose ready for use and if response can be made without undue delay.
- 200.02** All past practices of using fire apparatus, tankers, rescue trucks, modulances and ambulances for other than emergencies and/or for special services is strictly prohibited!
* March 24, 1986 Memo revision 86-6
- 200.03** Apparatus shall be used only for official business of the Department. The carrying of civilian passengers not specifically authorized by the Fire Chief is strictly forbidden.
- 200.04** When not responding to alarms, care must be taken to observe all traffic laws. The purpose is for safety and good public relations.
- 200.05** While operating Fire Department vehicles all personnel shall be required to wear seat belts at all times and shall require passengers to wear same. All personnel riding on any apparatus while it is being driven shall be required to wear the seat belt or safety harness, whichever is provided.
- 200.06** All non-essential travel shall be curtailed or minimized. Work programs should be planned and coordinated wherever feasible to minimize travel time.
- 200.07** Use of utility vehicles (designated as X-1, X-7 etc.) to purchase meals are permitted under the following conditions:
 - a. Approved by Officer-in-Charge.
 - b. Entry is made in daily station log, recording time left, mileage and purpose for use of vehicle, and time returned.
 - c. Proper entry made in daily apparatus log.

10XX

Care and Use of Fire Apparatus (LEGACY)



* March 24, 1986 Memo revision 86-6

- 200.08** All non-emergency travel time shall not exceed posted speed limits or 55 miles per hour.
- 200.09** No fire vehicle shall be allowed to idle at idle speed, for more than 3 minutes. Shut down all engines when not in use. If absolutely necessary, as for intermittent pumping operations, etc., engine idle speed must be set at no less than 1000-1200 RPM. This allows for adequate cooling and lubrication of the engines and charging of batteries. In diesel engines, fuel dilution and carbonization of the injectors are minimized. Learn to use your manual throttles.
- 200.10** Before engaging in drafting drill, equipment operators shall determine that water does not contain sand or other abrasive materials, and that the suction strainer is free of obstructions. Strainer end of the suction hose shall be kept at least 18" from the bottom of the water source and 24" or more below its surface. Where this cannot be done, reasonable precautions shall be taken to draw only clean water into the pump, if at all possible.
- 200.11** While companies are engaged in fire fighting or emergency operations, conditions may require that the apparatus be left unattended. However, under all other circumstances, including Company Inspections, apparatus shall not be left unattended while out of quarters.
- 201.01** PROCEDURE FOR TRAFFIC ACCIDENTS. In the event of an accident, no matter how trivial, involving a Department-owned apparatus or vehicle, the HFD member involved shall do the following:
- a. Stop immediately and give aid to any injured person. Do not move the person except to avoid further danger.
 - b. Notify the Fire Communication Control as soon as possible by radio. Have them notify the Police and call Rescue, if necessary. If the owner of the damaged property is not present, a note should be left for him on the vehicle or property, or notification made in person later. Fire Communication control shall also notify the appropriate superior officers and bureaus. The Chief of Department shall be notified immediately in case of fatality or serious injury. All serious accidents, injuries, and damaged County property, notify:
 - Corporation Counsel
961-8251 (business)
 - Safety Coordinator
961-8215 (business)
 - Mayor's Office
961-8211 (business)Note: The Fire Communication Control dispatcher on duty will inform the Chief, Corporation Counsel, Safety Coordinator, and the Managing Director's Office immediately.



- c. Avoid arguments; avoid accusations: do not admit liability, make any payment, assume any obligation, or incur any expenses.
- d. Move vehicle off the road, if possible, in order to allow free flow of traffic.
- e. Obtain names and addresses of the other driver, witnesses, and injured person(s).
- f. Obtain the license number and description of the other vehicle, if any.
- g. For accidents with probability of a claim against the County, the Chief will notify the Corporation Counsel. The responding Chief shall make every effort to see that pictures are taken of the accident, and shall recover or preserve the object or cause of the accident where practicable. Department members involved shall give full cooperation to any agent or our insurance carrier after being properly identified.
- h. A formal accident report will be submitted through channels to the Fire Chief describing all circumstances of the accident.
 Note: If the accident occurred while responding as an emergency vehicle, in addition to the steps listed above, the Company Commander shall also:
 - 1. Ascertain if the apparatus is in a condition so that it can be safely and reasonably operated, both from a mechanical standpoint and from the standpoint of personnel.
 - 2. If there are injuries or deaths due to the accident, DO NOT LEAVE THE SCENE OF THE ACCIDENT.
 - 3. In the case of minor accidents, with approval of the responding Chief, leave a crew member to secure aid and obtain information, and proceed to the alarm.
 - 4. Return to the scene of the accident after being released from the alarm.
- i. When requesting assistance in removing the vehicle or apparatus to the Shop, indicate explicitly the extent of damage so that the Shop crew will know what equipment to bring. Use the telephone instead of radio where possible.

203.01 CARE AND READINESS OF APPARATUS. Under supervision of the Company Commander, equipment operators shall care for and test their assigned apparatus to assure its constant readiness for alarm response. The Company Commander shall, when apparatus returns to quarters, whatever the circumstances, cause it to be properly cleaned and dried, and restored to a state of readiness for immediate response. Restoration and cleaning of the apparatus may be delayed to permit normal meal time of personnel provided that at least one-half of the normal complement of 4" and 1 3/4" hose, either wet or dry, is properly loaded for immediate use and fuel tank is at least half full. Resuscitators, breathing apparatus, scuba diving tanks, etc. which affect the health, safety, and welfare of personnel or the general public, shall be cleaned and restored to readiness as soon as possible.

203.02 Following an emergency mission or a training session, all water tanks should be filled from the nearest convenient hydrant before returning to quarters.

203.03 Water tanks on apparatus may be filled through the tank fill valve and by removing the filler cap from the tank. When done, the filler cap and tank fill valve must be closed.

10XX	Care and Use of Fire Apparatus (LEGACY)	
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- 203.04** Pumping mechanism and engine cooling systems in which salt water was used must be thoroughly flushed with fresh water. All other equipment where salt water was used shall be thoroughly cleaned with fresh water.
- 203.05** For safety purposes, no apparatus or automotive vehicle shall be refueled on or in the vicinity of the apparatus floor at any time. This also applies to refueling of vehicles with fuels carried in containers. Smoking will not be allowed on the apparatus or near it while being refueled. Members shall see that funnels used for refueling are cleaned and properly screened.
- 203.06** Tires shall be brushed and the underside of fenders, tailboards, running boards, and the underside of apparatus cleaned following each run. Tires must be examined closely for damage. If tires are dirty, they should be washed with water and sponged dry.
- 203.07** Tires which are flat or inflated to less than one-half of the normal pressure should be changed instead of being inflated by the shop personnel. In emergencies they may be changed by company members under the supervision of the Company Commander. Tires on apparatus need not be rotated. Any advice for care and upkeep of tires should be obtained from the shop.
- 203.08** Changing OIL and OIL FILTER on APPARATUS in service will be made in accordance with the information of the last change in the logbook of the apparatus.
 - Passenger vehicles..... 3000 miles or 6 months
 - Apparatus..... 2000 miles or 6 months
 - Service trucks..... 2000 miles or 6 months
 - Grass fire transportation.... 2000 miles or 6 months
 - Volunteer hose wagons..... 2000 miles or 6 months
- 203.09** In the event that it is deemed necessary for any reason to deviate from the above schedule, Company Commanders will communicate with the Assistant Chief and obtain permission to make oil change.
- 203.10** Company Commanders shall coordinate disposal of old oil with Storekeeper.
- 203.11** Batteries must be checked daily and hydrometer reading logged. Vehicles with dual batteries shall be operated in a single battery position, except when requiring charging of a weak battery. The practice of always operating the vehicle in the "both" battery position defeats the purpose of two batteries if both are allowed to run down simultaneously. If a battery becomes discharged during extended periods of operation at a fire, the fact will be reported by radio or otherwise to the officer in charge of the fire who will arrange for the installation of a replacement battery.

10XX

Care and Use of Fire Apparatus (LEGACY)



- 203.12** For apparatus equipped with a battery selection switch, it is important and necessary that this switch always be in the "A" or "B" position (in some apparatus, in Battery 1 or Battery 2 position) and never in the "OFF" position AT ANY TIME. Do not switch battery switch with engine running.
- 203.13** When the apparatus is not in use, the master switch and radio switch must be turned off. Before responding to alarms, both the master switch and the radio switch must be turned on.
- 203.14** Engines, pumps, underframe, and running gear of apparatus shall be painted when necessary, by members. The use of paint to cover brass, bright work, or the upper surfaces of the apparatus will not be permitted. Painting will be limited to those times and periods when painting is necessary and desirable in the opinion of the Assistant Chief.
- 204.01** VEHICLE MAINTENANCE & REPAIR
Note: * November 3, 1989 Memo revision 89-22
These procedures will supersede all other related memorandums and procedures.
- a. Company Commanders shall route all Fire Department vehicle repair requests to the respective Assistant Fire Chief, who will contact the Maintenance Shop supervisor to schedule such repairs.
 - b. Vehicle log shall contain all discrepancies to be worked on and shall accompany vehicle to Maintenance Shop.
 - c. Company Commanders shall check the daily vehicle log and inspection sheets for completeness.
 - d. The Assistant Fire Chief shall arrange for standby/replacement apparatus when down time for repairs will exceed one hour.
 - e. Assistant Fire Chief will arrange for the movement of the vehicle to and from the Maintenance Shop.
 - f. Assistant Fire Chief will inform the EMS Coordinator when any medic unit is reassigned and or placed in the shop for repairs.
 - g. During weekends and holidays, respective Assistant Fire Chief will use his discretion and have Fire Control contact the Maintenance Shop supervisor and/or EMS Coordinator to execute foregoing procedures.
- 204.02** APPARATUS MAINTENANCE. Station Commanders shall schedule rust preventive maintenance of fire apparatus and equipment assigned to their respective stations. Apparatus drivers shall be responsible for the notification of the officer when signs of rust appear anywhere on the apparatus and are directed to note same on the monthly apparatus report.
- 204.03** Special attention shall be directed to cabinet areas, especially under wooden floorboards, and to battery boxes.



- 205.01** LOGBOOK. An apparatus logbook shall be maintained for each individual apparatus and auxiliary vehicle. A daily pre-trip inspection will be conducted, with deficiencies recorded into apparatus log and station journal. Officers in charge of apparatus shall see that an accurate and complete record is kept of tires, servicing, battery charges, mechanical work done and all other pertinent information concerning the apparatus. If any changes are made to the apparatus that will affect the correctness of the log book, the officer concerned shall immediately notify the Maintenance Shop to update his/her recordkeeping. The record sheets in the log books, which are not necessary to retain as part of the apparatus history, shall be forwarded to the Maintenance Shop when they are filled. Whenever apparatus is transferred or relief apparatus is assigned to duty to a station other than what in which it is ordinarily stored, the apparatus log book shall be sent with it by the responsible officer.
- 206.01** MONTHLY APPARATUS REPORTS FOR AMBULANCE UNITS. Effective immediately, Monthly Apparatus Reports for all ambulance units shall be routed to the EMS Coordinator. Henceforth, the EMS Captain shall be responsible for coordination of servicing repairs and replacement of these units.
- 206.02** Please provide your full cooperation in this matter.
Note: * September 28, 1983 Memo revision 83-21
- 207.01** RELIEF APPARATUS AND AUXILIARY VEHICLES. Company Commanders in whose stations HFD relief apparatus or auxiliary vehicles are housed, shall see to it that these apparatus and vehicles are kept in a clean condition, in good running condition, and fully fueled at all times.
- 207.02** When relief or special apparatus or auxiliary vehicles are housed in quarters of multiple companies, their maintenance shall be equally divided among the companies. In addition to the checklist, relief apparatus shall be road-tested weekly at least 10 minutes. Company Commanders who use a relief apparatus shall see that it is returned to its regular station in a clean condition and with the equipment complete. Upon return to its regular station, relief apparatus shall be immediately inspected by the Company Commander there to determine that the above instruction has been met. If not, an immediate report by the phone shall be made to the Assistant Chief.
- 207.03** Company Commanders of stations where relief pumpers are assigned shall be responsible for keeping these apparatus ready for fire fighting operations by maintaining the following minimum equipment on the apparatus at all times.
- a. Hose:
1. 8 (100') lengths 4" hose; 16-2 1/2" hose.
 2. 8 lengths 1 3/4" hose (apparatus with pre-connected outlets).
 3. 200 feet 1" chemical hose.
 4. 1 length soft suction hose.
 5. 2 lengths 4" or 6" hard suction hose.



6. 1 suction strainer for hard suction hose.
- b. Ladders:
 1. 1 only extension ladder.
 2. 1 only roof ladder.
- c. Connections and Nozzles:
 1. 2 only 2 1/2" double female.
 2. 2 only 2 1/2" double male.
 3. 2 only 2 1/2" fog nozzle.
 4. 2 only 1 3/4" TFT nozzle.
 5. 1 only Deluge Master TFT nozzle, if equipped with Deluge Monitor.
 6. 2 only 2 1/2" hose spanner.
 7. 1 only Storz to 4 1/2" male thread.
 8. 1 only Storz to 4 1/2" female swivel.
 9. 1 only Storz to 2 1/2" male thread.
 10. 1 only Storz to 2 1/2" female swivel.
 11. 1 only Wye Storz to 2 - 2 1/2" male threads.
 12. 1 only Siamese 2 - 2 1/2" female swivel to Storz.
 13. 1 only Storz spanner.
- d. Other Items:
 1. 1 only hydrant wrench.
 2. 1 only fire extinguisher (all purpose).
 3. 1 only pick head axe.
 4. 1 only pike pole.
 5. 1 only crow bar.
 6. 6 only emergency road flares.
 7. 1 only Lifeline 120' x 1/2" nylon or braided rope.
 8. 1 only apparatus log book (to include all the above inventory items).
 9. 1 only wheel chock.
 10. 1 only 24 unit first aid kit.

207.04 4 X 4 UTILITY BRUSH VEHICLES (81-23). All 4 X 4 vehicles equipped with portable tanks and pumps shall be maintained on stand-by duty void of water.

207.05 REPLACEMENT APPARATUS DESIGNATION (85-17). To avoid confusion and to maintain the identity of apparatus and station of origin, the following guideline shall take effect:

- a. All apparatus being used for temporary replacements of units being repaired or "out of commission" shall use the designated call sign of the unit it replaces. Example: HFD-124, designated as Tanker 14, is out of commission. State 2011 (6x6), which temporarily replaces HFD-124, shall assume the designated call sign of HFD-124 as "Tanker 14".

Note: Mar. 1986 - Amendment No.22

10XX

Care and Use of Fire Apparatus (LEGACY)



- 208.01** CONTROL OF AUXILIARY VEHICLES. Auxiliary vehicles of the Hawaii Fire Department assigned to the various fire stations for maintenance and storage are to be used exclusively for departmental purposes.
- 208.02** The Assistant Chiefs are solely responsible for all vehicles assigned to the Fire Protection section and permission must be obtained from him for the use of said vehicles.
- 208.03** Whenever a vehicle is used, the Captain or officer in charge of the station to which the auxiliary vehicle is assigned shall journalize all of the following pertinent information:
- Name of Assistant Chief granting permission.
 - Reason for use.
 - Driver of the vehicle.
 - Time out and time of return.
 - Mileage reading at beginning and ending of usage.
 - Condition of vehicle.
- 208.04** ADMINISTRATIVE VEHICLE ASSIGNMENT AND USAGE. Vehicles assigned to the administrative and auxiliary services personnel, inspectors, training, etc. are for their exclusive use in the performance of their duties. Other personnel desiring use of these assigned vehicles shall obtain permission from the assigned person.
Note: When vehicles are required for emergency purposes. The officer authorizing use of such vehicles is responsible to insure proper service and maintenance upon return of such vehicles.
- 208.05** MOVEMENT OF VOLUNTEER APPARATUS/EQUIPMENT (85-12). It shall be the responsibility of the authorizing officer to notify the Deputy Chief's office, Volunteer Training Officer, and the respective Volunteer Fire Chief whenever a volunteer apparatus or equipment is moved from its assigned station to another station.
Note: Mar. 1986 - Amendment No. 23
- 208.06** PERSONAL VEHICLES. All personal vehicles are prohibited from parking or standing within the confines of any building or station of the Fire Department. In addition, no personal vehicle shall occupy spaces sheltered by station overhangs while department vehicles are left exposed to the elements.
Note: Rest assured that violation of this order will not be tolerated. Officers in Charge shall be held equally responsible for all violations.
Note: * September 16, 1982 Memo revision 82-11
- 209.01** REPORTING OF DEFECTS. Mechanical defects in apparatus or equipment shall be reported to the Company Commander immediately upon discovery. He/she will report the condition through channels. If the condition has not been relieved, a written memorandum must be made of the defect and left with the relieving officer along with any other verbal information that may be helpful to repair personnel.

10XX

Care and Use of Fire Apparatus (LEGACY)



Note: March 1986 - Amendment No. 24

210.01 REPAIRS TO APPARATUS AND EQUIPMENT. The instructions from FASO relative to the care and operation of apparatus shall be strictly followed and no repairs, adjustments or alterations shall be made without authorization from him.

210.02 The following procedures shall govern the repairs to apparatus and equipment:

a. For the Fire Fighting Forces

1. The Company Commander shall notify his/her Assistant Chief and supply him with all particulars of the repairs requested.

Note: Effective this date, all damages, repairs, and replacement equipment, whether they be EMS or HFD, shall be routed verbally through proper channels via your Assistant Chief, followed immediately by a written "to and from" report.

Note: * September 10, 1993 Memo revision 93-7

2. Assistant Chief shall forward the request to the Maintenance Shop. Should requests for repairs originate when the Shop is closed, the Assistant Chief shall arrange for use of a relief apparatus if necessary. If this cannot be done and immediate repairs are necessary, he shall call for a mechanic via Fire Communication Control.

b. Condemning the use of any equipment will be done by the Fire Chief or his Deputy.

c. Placing any piece of equipment out of service will be by the discretion of the respective Assistant Chief. Such action will be immediately reported to the Maintenance Shop and to the Deputy Chief.

d. The final decision to determine serviceability and safety condition of any equipment will be done collectively by the Safety Officer, the Maintenance Shop Supervisor, and the Deputy Fire Chief and/or Fire Chief.

e. For the Various Divisions:

1. The Division Head shall notify the Maintenance Shop of requested repairs during normal working hours.
2. Should requests for repairs originate when the Shop is closed, the appropriate Assistant Chief shall be notified, and he shall assign a relief vehicle or, if the situation demands, call for the mechanic via the Fire Communication Control.

f. For the Fire Fighting Forces and Divisions:

1. All requests for repairs to apparatus not of an emergency nature which are pending at the end of each month, shall be noted on Apparatus Monthly Inspection Report.
2. With respect to repair requests involving radio equipment, the procedures above shall apply except that the Storeroom/Communication shall be involved instead of the mechanics.

210.03 VEHICLE MAINTENANCE AND REPAIRS (82-10). All repairs to be done on apparatus by the Mechanic Shop or warranted dealers will be first referred to the Fire Auxiliary Services officer via the respective Assistant Chief. At no time will company personnel circumvent this procedure.

10XX

Care and Use of Fire Apparatus (LEGACY)



Note: Mechanics have been instructed to refuse apparatus repair requests not conforming to this procedure. All repairs will be scheduled by priority. Emergency repair priority will be limited to first line pumpers and ambulances with no available relief vehicle.

Note: March 1986 - Amendment No. 25

211.01 APPARATUS TESTS. Each Monday morning at 0800, members responsible for fire fighting apparatus will check records. If its engine was not run during the previous week, it will be started and run until heated to operating temperature and road tested. Entry of the test will be made in the apparatus log. Apparatus equipped with air brakes shall maintain a minimum of seventy (70) pounds of air pressure at all times.

211.02 Whenever the annual pumper capacity test is conducted, the entire on-duty crew of the company involved shall participate. Assistant Chiefs shall coordinate the test locations and scheduling with the Chief Mechanic. Company Commanders shall notify Control prior to leaving quarters for the test, giving the time and location, in order that necessary company relocations can be done.

211.03 Daily apparatus checks shall not include the daily management and operation of fire pump. The practice of operating pumps at shift changes places needless and excessive wear on pump and transfer components.

211.04 Pump familiarization activities shall be limited to once weekly and during training sessions where all personnel participate.

Note: March 1986 - Amendment No. 26

212.01 APPARATUS PROCEDURES. Standard operating procedures for drivers shall include all of the following prior to movement of any and all fire apparatus.

- a. Insure that all exterior equipment is properly secured.
- b. Booster nozzle is properly stored and drag brake applied.
- c. Insure that all compartments are completely closed after equipment check.
- d. Complete walk around to check for chock blocks and obstructions.
- e. In station, place sign on driver's door if charging batteries.

Note: March 1986 - Amendment No. 27

212.02 Damage caused by non-conformance of the above safety procedures will be the sole responsibility of the driver moving said vehicle. Unavoidable accidents shall be processed on their individual merits.

213.01 SAFE DRIVING PRACTICES (81-8). The policy for emergency response is as follows:

- a. Speed through business districts shall not exceed the posted speed limit on dry roads and clear visibility. Reduce speed by 5-10 mph during rainy days or heavy showers.
- b. Use extreme caution when proceeding through intersection controlled by traffic lights or stop signs. When these signals are against you, you are obligated to insure that the way

10XX

Care and Use of Fire Apparatus (LEGACY)



is clear before driving through - not the other driver!! If safety requires stopping the vehicle, by all means do so. In view of the most recent auto accident involving Medic 5, all personnel shall securely fasten and wear the seat belt as provided.

Note: This directive applies to all personnel assigned to and occupying a jump seat on the fire apparatus and medic units while enroute to any emergencies.

Note: Paramedics requiring to be free of their jump seats to administer to the patient's condition and need will advise and remind the driver to maintain a speed of relative comfort (not exceeding posted speed limits) before proceeding to emergency facility.

Note: There will be no exceptions to this directive.

- c. All emergency vehicle drivers must be aware of a constant unknown to every response - the other driver - and drive defensively without depending on the siren and/or other warning device.
- d. Speed in general should always remain within the speed limit and in no case exceed this limit by more than 10 mph.
- e. While reversing, speed limit shall not exceed 5 mph.

213.02 BACKING OF APPARATUS (83-1). Backing of fire apparatus and ambulances shall not be done without the aid of a guide. Damage charges caused by violation of this order may rest with the operator involved.

213.03 Company Commanders shall insure that all personnel comply with these requirements.

214.01 PREVENTING UNNECESSARY FIRE VEHICLE AND APPARATUS BREAKDOWN (81-3). In an effort to decrease unnecessary vehicle wear and malfunctions, the following procedures shall be in effect:

- a. Use of the red rotating light and flashing red lights shall be governed by good judgment. Example: One wonders the value of continued use of all emergency lights when a fire vehicle is located far off the road or highway. Reasonable use of all electrical devices on our vehicles will lessen unnecessary load on all charging systems which normally require higher engine rpms to charge the batteries.
- b. Each operator must know the vehicle he/she is operating, and shall acquaint himself/herself with the purpose of various gauges and meters in his vehicle. Allowing continued use of a vehicle when its charging system is discharging is inexcusable.
- c. After apparatus has returned from a run, let engine idle at approximately 1000 rpm for 3 to 5 minutes to allow for proper cooling of the engine. Bring engine back down to a slow idle (500-700 rpm) then shut engine. **DO NOT REV ENGINE PRIOR TO SHUT DOWN.**

214.02 DRIVING PROCEDURES FOR ALL MEDIC UNITS (81-2). To prevent extensive transmission damages and premature brake wear and failure, drivers are directed to conform to the following factors:

10XX	Care and Use of Fire Apparatus (<u>LEGACY</u>)	
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- a. Transmission of these units cannot accept the strain imposed by full acceleration from a stop in the "drive" position. Drivers of these units are directed to accelerate gradually in low gear then shift to "drive," or next higher gear.
- b. Brake wear is also a high cost factor on these units. Drivers should shift to lower gears to aid in slowing the vehicle or stopping.
- c. Transmission shall be scheduled for service every 15,000 miles.

215.01 LIMITED SLIP DIFFERENTIAL (81-6). Drivers of such equipped apparatus shall refrain from heavy acceleration around sharp corners or right angle turns. This practice places unnecessary strain to the axle and axle flange bolts.

215.02 The desired practice is to let the vehicle glide around the corners or complete the maneuver with the minimal acceleration required. Company Commanders shall be responsible for insuring that these procedures are adhered to.

216.01 PROCEDURES FOR TRAVELING ON WAIPIO VALLEY ROAD (81-14). Hawaii County Traffic Ordinance (Chapter VI, Section 6, Paragraph B, Subsection 2), restricts the use of Waipio Valley Road to four-wheel drive vehicles.

All personnel will follow the following procedures when ascending and descending Waipio Valley Road:

- a. Only four wheel drive vehicles will be used.
- b. All wheel hubs will be engaged and in locked position.
- c. Transmission will be engaged in four wheel drive low gear.

217.01 APPARATUS AND VEHICLE PAINTING (83-10).

- a. Under-carriage-yellow.
- b. Compartment and fender wells-black (optional).
- c. Engines-except for gas engines.
 - 1. Detroit diesel..... light green
 - 2. Cummins diesel..... off-white
 - 3. Caterpillar diesel..... yellow
 - 4. International diesel..... red
 - 5. Gasoline engines..... orange
- d. Fuel covers and dip sticks
 - 1. Diesel..... red
 - 2. Gasoline..... green
 - 3. Transmission oil and hydraulic oil.. blue
 - 4. Engine oil.....white

FIRE HOSE

10XX

Care and Use of Fire Apparatus (LEGACY)



- 230.01** CARE AND USE OF FIRE HOSE. Hose carried on apparatus shall be securely coupled and orderly in arrangement. Unless otherwise ordered, hose shall not be allowed to remain on apparatus in a damp or dirty condition in excess of twenty-four hours.
- 230.02** Cotton jacketed or dacron filler hose shall not be allowed to remain on apparatus for more than one calendar month without being removed. Report of the hose changed will be made in the company journal.
- 230.03** Special care shall be exercised to see that fitted gaskets are in hose and that hose which has become deteriorated is replaced and tested.
- 230.04** Before hose is removed from apparatus for change, the replacement sections will be properly prepared, couplings examined, and coupled together. Change will be made with as much speed as is consistent with safety. On apparatus equipped with double hose compartments, change will be made in only one compartment at a time.
- 230.05** When picking up hose after fires and emergencies or training sessions, it shall be replaced on the apparatus in readiness for immediate use unless permission is granted by the Battalion Chief allowing the company to return to quarters without reloading hose.
- 230.06** Care shall be exercised in "breaking" hose lines inside of buildings to see that water damage is kept to an absolute minimum.
- 230.07** All hose shall have water run through it at least once every six months, unless otherwise wet in service.
- 230.08** Dirty hose shall be washed with cold clear water only. No other cleaning agent will be used for this purpose without permission of the Assistant Chief. Hose contaminated by oil, tar, paint or other similar substances will not be sent to the Shop for cleaning. The Shop will be contacted by the appropriate Assistant Chief for advice as to cleaning of the hose. In the event the hose is unusable, the Assistant Chief will send the damaged or worn-out hose to the Shop for inspection.
- 230.09** Any hose used to discharge soda and acid or foam solutions shall be flushed with clean fresh water after use.
- 230.10** No attempt will be made by members in quarters to repair damaged threads or swivels on hose. This will be done at the Storeroom where proper tools are available. Only flake graphite in small amounts may be used as a lubricant.
- 230.11** The positions of sections of rubber jacketed hose shall be changed on the reel and the hose recoiled every two calendar months.

10XX

Care and Use of Fire Apparatus (LEGACY)



- 230.12** Hose sent to the Shop for repair and testing shall be clean, dry and rolled with the male coupling forming the core. It shall be tied and tagged, and damaged spots or the nature of repair needed, must be noted on the tag and also on the hose, if possible.
- 230.13** Following use of the Hi-Lift Suction Booster (4 1/2" or 2 1/2"), the Company Commander shall see that it is properly oiled and greased. However, if sea water had been used, before being lubricated the equipment shall be flushed by operating it in fresh water for approximately 15 minutes. Instructions for the lubrication method may be obtained from the Maintenance Shop.
- 230.14** BATTERY CHARGING NEAR HOSES (76-26). Battery charging shall not be done within close proximity of any fire hoses.
- 230.15** Experience has proven that such hoses, when tested, have perforations in several places which have the appearance of a sprinkler system.
- 230.16** HOSE REPAIR AND REPLACEMENT. All hose in need of repair shall be handled in the following manner:
- a. The Company Commander shall notify the appropriate Assistant Chief about the needed repairs.
 - b. The Assistant Chief shall arrange for delivery of the hose to the Storeroom.
 - c. The Assistant Chiefs shall cause all hose so delivered to be repaired or condemned as the condition of the hose after testing may warrant. The Assistant Chief shall keep a record of all hose repaired or condemned by the Shop.
 - d. Whenever hose is repaired and found satisfactory, the Storeroom clerk shall notify the appropriate Assistant Chief who shall arrange for delivery of the hose to the station concerned.
 - e. Whenever hose is condemned, the Assistant Chief or designee shall notify the Company Commander of the station concerned, informing him of the identification number located on the female coupling of the hose and the date of condemnation.
 - f. Upon being informed by the Storeroom of the condemnation of hose, the Company Commander shall:
 1. The Assistant Chief shall arrange for replacement of the hose.
 2. Submit form noting the identification number, the year, and brand of hose, and cause and date of condemnation.
 3. Upon receiving replacement of condemned hose, note the identification number, the year, and brand of hose.
- 230.17** Persons desiring to purchase discarded fire hose or equipment will be referred to the County Purchasing Agency, County Building.
- 233.01** HOSE TESTS. Beginning in January and ending before July of each year, all Assistant Chiefs shall plan for the testing of all fire hose in service and spare hose in their respective

10XX

Care and Use of Fire Apparatus (LEGACY)



platoons. Testing shall be distributed among platoons by agreement or, if necessary, by the Assistant Chief. They shall arrange for the pump and related gear to be delivered to the various stations for the hose testing to be done by personnel of the company.

- 233.02** Company Commanders shall cause every piece of hose under their control, except garden hose and suction sections to be tested in accordance with the NFPA 1962 recommended practice of 250 p.s.i. for 5 minutes. All hose found to be defective and in need of repair shall be referred through channels to the Supply Room. Only the Supply Room can condemn hose. Any hose found to be less than 48 feet shall be replaced.
- 233.03** Hose tests shall be reported on the Annual Service Test Report. Assistant Chiefs shall notify the Chief as soon as the annual test of all hose is completed.
- 233.04** All repaired hoses will be tested at 250 psi for 5 minutes before placing back into service.
- 233.05** All new hoses will be acceptance tested in accordance with NFPA 1961 by the receiving Fire Company before placing into service. Hoses will be subjected to hydrostatic pressure of 400 psi for at least 15 seconds and not more than one minute during which time the hose shall not leak nor shall any jacket thread break during the test.
- 233.06** HOSE TESTING PROCEDURES: The following procedures will be adhered to when conducting annual hose, service and/or acceptance test for 1", 1 1/2", 1 3/4", 3", and 4" hoses:
- a. Before subjecting hose to the service test, it shall be physically inspected for jacket defects, coupling damage and worn or defective gaskets.
 - b. All lengths with any of these defects shall be removed from the test area and repaired if serviceable and then retested before being put back in service.
 - c. Safety helmet will be worn by all persons conducting the hose test and all other persons within close proximity of the test when hose lines are under pressure. Unauthorized persons will be advised to stay clear of the testing area. Safety cones should be utilized for this purpose.
 - d. HOSE LINES:
 - 1. The total length of each hose line to be tested shall not exceed 300 ft.
 - 2. The hose lines shall be straight and without kinks or twists.
 - e. HOOK-UP:
 - 1. The hose lines to be tested shall be connected to the 2 1/2" discharges on the pump panel side only.
 - 2. Shut off nozzles shall be attached to the far end of the line.
 - 3. All couplings will be tightened with an appropriate spanner wrench.
 - f. FILLING UP AND REMOVING THE AIR:
 - 1. With the pumper discharge gates and nozzle valves open, the pressure shall be gradually raised to approximately 50 psi. Nozzles will be manned and manually controlled.



2. After the line is charged and all the air has been exhausted from the hose, the nozzle valve shall be closed slowly and the pump discharge valve shall be closed, then slightly (no more than one-quarter) opened, just enough to allow static water pressure to build up in the hose line.
- g. MARKING OF COUPLING SLIPPAGE:
 1. After filling hose, each coupling shall be marked at the leading back edge on the hose to determine whether the coupling slips during the test.
 2. All couplings shall be checked for leakage and tightened with spanner where necessary.
- h. PRESSURE TEST:
 1. ANNUAL TEST OR SERVICE TEST - The pressure shall be raised slowly, at a rate not to exceed 250 psi in 15 seconds and then held for five (5) minutes.
 2. ACCEPTANCE TEST - Hose will be subjected to hydrostatic pressure of 400 psi for at least 15 seconds and not more than one (1) minute.
 3. During the test, persons conducting the test will walk down the line and inspect for leaks.
 4. Never stand in front of the free end or straddle a hose line under pressure.
 5. Inspecting personnel shall always be at a distance of 15 ft. from the sides of the hose line under test.
- i. DRAINING:
 1. After 5 minutes the pressure shall be reduced slowly, the pump discharge gates closed and each nozzle valve opened to drain hose.
- j. RECORDING DATA:
 1. If the length is defective, a tag explaining what the defect is and if applicable, a distinguishing mark noting the location of the defect shall be placed on the hose.
- k. INSPECTION:
 1. Observe marks placed on hose at leading back edges of the couplings. If the coupling has moved, the coupling shall be cut from the hose, the length tagged and sent in for recoupling.
 2. All couplings shall be examined when the hoses are uncoupled and any leaking gaskets or defective couplings shall be replaced.
 3. Any burst or leaking lengths shall be tagged, taken out of service and sent in to be repaired.
- l. COMPLETION:
 1. After testing or retesting, all hoses shall be thoroughly cleaned, drained and dried before placing back in service or stored.
 2. A current date (year) of the test should be stenciled in black near the female coupling (eg. T-84 or RT-84, if retested again during the same year, because of damage noted and repaired).

234.01 HOSE IDENTIFICATION. All lengths of fire hose shall be properly identified in the following manner:



- a. Each length of hose shall be assigned a permanent number that will remain the same throughout the life of the hose.
- b. The number and the year of purchase (eg. 15.84) shall be hand punched or engraved on the shank portion of the female coupling behind the swivel, rather than on the male coupling so that it can be easily identified on the hose rack. This information will be transferred to the new coupling, when old coupling is damaged and replaced.
- c. Fire Companies should further identify hoses by stenciling the company's number on the hose jacket (in black), approximately (2) feet from the female coupling on both sides of the hose.
- d. Whenever hoses are reassigned to another fire company, the old number (if any) shall be blocked out and the new company number stenciled in.

235.01 HOSELOAD REQUIREMENTS AND CONFIGURATIONS (82-4).

The following hose-load requirements and configurations will be implemented by all fire companies where applicable on next hose-bend change:

<u>Hose size</u>	<u>Type of Service</u>	<u>Type of Load & Reqmnt.</u>
2 1/2"	Supply line/ Rt. hose bed <u>if</u> used with 3" hoses.	Accordian load; min. of 20 hose lengths per load.
3"	Supply line/Left hose bed <u>if</u> used with 2 1/2" hoses.	Accordian load; min. of 15 hose lengths per load.
4" (pending)	Supply line/Right hose bed <u>if</u> used with 3" hoses.	Flat load; min. 800 ft.
2 1/2"	Handline, heavy Flat load "drag;" heavy stream. *Removable minimum of 3 lengths shelf over 1 1/2" with adjustable fog preconnected hose nozzle. *(Submit request to FASO)	
1 1/2"	Handlines, pre- connected. (side loading same).	Flat load; 2 loads (see attached loading pro- cedures.)
1-1/2"	Hi-Rise Kit (hose). Left-side compartment.	Self-locking roll: 2 each 50-foot lengths with adjustable fog nozzle: 2 each 50-foot lengths with 2-1/2 to 1-1/2 reducers.
1-1/2"	Reverse-lay Kit (hose). Left side rear compartment.	Bundle: 1 each 100 feet with adjustable fog nozzle; 1 each 100 feet with adjustable fog and 2-1/2 to 1-1/2 gated wye. (Bundle will not be more than 30 inches in length).
1"	(Yellow) Single jacket-rubberlined compartment.	Self-locking roll; 2 each 100 feet. (Start hose/left side roll with 36-inch loop). Used <u>ONLY</u> to extend booster lines.
3"	Turret nozzle supply lines. Secure hoses near short	Preconnected to turret manifold; accordion folded. (Acquire lengths of 3" hoses from



base of turret. FASO).
 1-3/4" Pre-connect cross lays. 200' and 150' Flat load.
 Note: Fire companies having difficulty complying, will notify the Battalion Chief's office and have situation adjusted to comply with HFD standards.

235.02 PRECONNECTED 1 1/2" ATTACK HOSELINE

Load requirements and procedures:

- a. Pre-connect three (3) lengths of 1 1/2" hose and unroll one 1 length (spare).
- b. Load spare length first: START with female end at an inside corner of the rear of the hose bed. "Flat load" to the front and return to the rear (repeat) until entire length of hose is loaded, with the male coupling at the rear of the hose bed (see diagram for proper "Flat load" configuration.)
- c. Preconnected hoses: START with female connected to 1 1/2" discharge. "Flat load" on top of spare. STOP after loading one (1) length. Lay the remaining preconnected two (2) lengths flat on the floor.
- d. Pick up male end of hose; suspend that end about 24 inches from rear of hose bed (on top of hoses already laid) and continue with "flat load". STOP on first return to the rear and form an 8-10 inch "loop" then resume with "flat-load".
- e. Finish "flat load" by attaching a 1 1/2" adjustable fog nozzle to the male coupling and lay nozzle on top of load. Tuck "slack" neatly into the side of the "flat load."
- f. This type of hoseload will be referred to as the "drag and carry" method of loading and will be implemented by all companies using 1 1/2" hoses for initial fire attack.

Removing and Advancing Preconnected 1 1/2" Attack Hose Lines:

- a. Only upon orders from the company commander or a superior officer.
- b. Nozzleman will be wearing his fire jacket and helmet.
- c. Step up on rear tailboard, facing hose load to re-moved, grasp nozzle with right hand (when removing hose from rightside hose compartment) and "loop" with other hand.
- d. Pull out 3-4 feet of the hose load by leaning back and simultaneously stepping down from tailboard (using body weight to assist in pulling hose out). **CAUTION: DO NOT RUSH!**
- e. In one continuous motion, pivot (face in the opposite direction) under hose load and shoulder-carry hose load. NOTE: Nozzleman will pivot clockwise and shoulder carry hoses on left shoulder when removing hoses from the right side hose compartment and vise-versa when removing hoses from the left compartment. FOLLOW this procedure to minimize or prevent injuries caused by bumping into or against ladder beams and hard suction hose on the apparatus.
- f. Secure load on shoulder with same arm and hand. Hold nozzle with other hand.
- g. Walk away from apparatus and drag remaining hose free from hose compartment until resistance is felt; then,
- h. Loosen hold on shoulder load and proceed briskly to fire, allowing hose to flake off top of load to the ground.

10XX

Care and Use of Fire Apparatus (LEGACY)



- i. If additional hose is needed, advise apparatus operator (FEO). He will disconnect hose from discharge and connect spare length. He will assist in the extension of the line before discharging water from the tank.

Note: NOZZLEMAN, WATCH YOUR STEP AND ADVANCE HANDLINES WITH CAUTION.

Note: * June 8, 1982 Memo revised 82-4

PORTABLE EQUIPMENT AND SUPPLIES

- 240.01** ACCOUNTING OF EQUIPMENT. Members shall not change or alter the arrangement of fire fighting equipment on apparatus nor otherwise disarrange the system in effect without approval of the Deputy Fire Chief.
- 240.02** All fire fighting equipment issued to companies is to be plainly marked with paint or stenciled with paint so as to avoid confusion in picking up at fires. Hose straps and spanners, and other equipment may be marked by members with metal stamps or punches.
- 240.03** When a permanent transfer of an apparatus is made, a report for the equipment remaining on the apparatus going to the new location shall be submitted. Should any of the equipment of the transferred apparatus be assigned to another vehicle, it shall be so reported.
- 240.04** When receiving a relief apparatus, Company Commanders shall make a physical inventory check to account for all tools and equipment shown on the apparatus log. A similar check shall be made by the Company Commander of the regular quarters of the relief apparatus when it is returned. Any shortages or changes shall be reported immediately to the appropriate Assistant Chief.
- 240.05** All material around quarters which is of no current value to the companies' operation, and all empty carboys and cylinders shall be sent to the Storeroom for disposal.
- 241.01** FIRE EXTINGUISHERS. ALL CARBON DIOXIDE extinguishers shall be replaced after each use, even though only partly discharged. Should the seal be broken and the extinguisher not used, Company Commanders are instructed to inform the Storekeeper and requisition a replacement. Any gas remaining in a used dioxide extinguisher may be utilized for drill purposes prior to replacement.
- 241.02** ALL DRY CHEMICAL extinguishers shall be replaced annually as well as after each use. Once every calendar month the extinguisher shall be inverted and shaken slightly to prevent the powder from packing. Any extinguisher suspected to be unfit for use at fires shall be replaced. A record shall be kept of the last recharge date.

10XX

Care and Use of Fire Apparatus (LEGACY)



- 241.03** REFILLING OF PRIVATE PORTABLE FIRE EXTINGUISHERS. To clarify the Department's position of refilling private portable fire extinguishers, the following guidelines should be followed:
- a. Use was documented (Police or Fire Department).
 - b. Use was for other than personal or private property protection usage.
 - c. Expended extinguishers returned to the warehouse for refill shall note:
 1. Fire or Police incident number.
 2. Name of owner.
 3. Telephone number.
 - d. This Department shall only refill the extinguisher and is not responsible for parts replacement, hydrotest, loaners, etc.
 - e. This Department is not responsible for refilling extinguishers expended by the other government agencies.

Note: * Feb. 27, 1991 Memo revision 91-2

- 242.01** SCBA (Self-Contained Breathing Apparatus). For the purpose of proper care and maintenance, breathing apparatus at each station shall be assigned to individual personnel by the Company Commander. This will enable a member to maintain the same breathing apparatus when his/her platoon is on duty.

- 242.02** Inspection of breathing apparatus shall be made weekly and after each use. Each responsible member shall record these inspections which shall be maintained for each breathing unit. Unassigned breathing apparatus shall be maintained and reported by whomever the officer designates.

- 242.03** Company commanders shall ensure that subordinates carry out these requirements.

- 242.04** It is recommended that each member make a daily visual inspection of the breathing apparatus assigned to him for completeness and readiness.

242.05 INSPECTION PROCEDURES

- a. Cylinders shall be fully charged according to the manufacturer's instructions. Record the cylinder pressure when pressure gauge indicates full charge, which is normally from 1980 to 2216 p.s.i. The full charge recording will detect any leak on subsequent inspections. Company Commanders are instructed to utilize partially used cylinders for drill purposes prior to requisitioning for replacement.
- b. Facepieces and breathing tubes shall be inspected for signs of deterioration (cracking) or broken parts. A special examination should be made for torn or wrinkled exhalation valves and speaking diaphragms.
- c. Other parts shall be examined for defects.
- d. Complete units shall be reassembled after cleaning has been done and returned to the apparatus storage compartment in the ready position.
- e. Schedule preventive inspections daily after each change of shift.

10XX

Care and Use of Fire Apparatus (LEGACY)



- f. No mechanical repairs or adjustments will be made to SCBA regulators and masks. Improperly operating or defective units will be turned into the storeroom.
 - g. Only a certified SCBA facility will do repairs and testing of all SCBA units.
- Note: * May 3, 1989 Memo 89-6

242.06 CLEANING AND DISINFECTION. Each member shall clean his assigned breathing apparatus as soon as practicable after it's used and upon return to quarters. Each fire fighter should be trained in the cleaning procedure. In addition to cleaning the entire device, the facepiece and breathing tube should be disinfected. The following procedures are recommended:

- a. Separate facepiece and breathing tube from remainder of device.
- b. Wash facepiece and breathing tube in cleaner-disinfectant or detergent solution. Strong cleaning and disinfecting agents should not be used. A cleaner disinfectant solution is available at the Storeroom.
- c. Rinse complete in clean, warm water.
- d. Air-dry in a clean area.
- e. Clean other parts as recommended by manufacturer.
- f. Reassemble device and arrange in storage rack or container.

242.07 REPAIR. Replacement or repairs shall be done only by qualified persons, using parts designed for the breathing apparatus. No attempt shall be made to replace parts or to make adjustments or repairs beyond the manufacturer's recommendations.

242.08 Regulators shall be sent to the Storeroom for return to the manufacturer or to a trained technician for adjustment or repair.

242.09 Parts shall not be interchanged among devices of different manufacturers.

242.10 All repairs and parts replacements shall be recorded to ensure a complete maintenance history of each unit.

242.11 STORAGE. Breathing apparatus shall be stored on the apparatus in its storage case or on the rack provided for that purpose. Breathing apparatus of the demand type shall be stored with the main line regulator valve open and the main cylinder valve and regular bypass valve closed.

242.12 The facepieces of all devices shall be positioned carefully to avoid distortion of rubber parts during storage. Headharness straps should be fully extended.

242.13 CYLINDER REPLACEMENT. All companies shall utilize the services of the Storeroom for the replacement of used cylinders during working hours of the Storeroom and through their Assistant Chief when the Storeroom is closed.

10XX

Care and Use of Fire Apparatus (LEGACY)



- 242.14** During emergencies which require the use of a large number of cylinders, Assistant Chiefs may procure reserve cylinders from the Storeroom. Stations are to call storekeeper before sending to vendor, invoice to follow.
- 243.01** OXYGEN CYLINDER. Of the two oxygen cylinders attached to each resuscitator, one shall be fully charged (2000 lbs). and the other shall have a pressure not lower than 500 lbs. Company Commanders are instructed to utilize deficient oxygen cylinders for drill purposes prior to requisitioning for replacement. If Company Commanders know or suspect that the resuscitator has been used on a person with a contagious disease, they shall report the matter immediately to the physician at the Health Department and be guided by his directive. Cleansing of equipment in such cases will always be done in accordance with the physician's advice. Disinfectant is available at the storeroom.
- 244.01** NOZZLES and similar equipment shall not be taken apart for greasing and other purposes. Whenever this equipment becomes defective or difficult to operate, it will be sent to the Shop for services where proper tools are available.
- 245.01** AXES which have become dull in service will be sent to the Storeroom and replaced with sharpened axes.
- 246.01** SALVAGE COVERS (81-21). Salvage covers shall be carried on apparatus at all times and shall be considered as essential equipment. The following procedures and regulations will govern the use and care of covers:
- a. Throwing covers from roofs, windows, or other openings above ground is strictly prohibited.
 - b. When men are moving covers over sharp projections or from stock or machinery, care must be used to prevent tearing.
 - c. Covers must be washed and hung to dry as soon as possible after returning from fires or other related incidents requiring its use.
 - d. After covers are dried, they must be examined for holes and mended before they are refolded and placed on the apparatus.
 - e. Covers shall be taken from the apparatus and refolded after a thorough inspection when not in use within a period of one month.
 - f. Use, condition and inspection dates will be noted on the monthly apparatus reports.
 - g. Covers that require repairing, waterproofing and/or replacing should be reported to the Storeroom through channels.
 - h. Damages because of negligence will not be tolerated.
 - i. Each pumper will have two salvage covers, 12 feet X 18 feet (NFPA 19, Article 1010).
- 250.01** EQUIPMENT DAMAGE (80-9). Whenever safety equipment, tools and equipment which the employer furnished to employees to use in connection with their official duties is damaged, lost, stolen or worn, the following procedures shall be in effect:

10XX

Care and Use of Fire Apparatus (LEGACY)



- 250.02** Verbal report of the damaged equipment/tools shall be made to the respective Assistant Chiefs followed by written HFD-68 Report to the Fire Chiefs's Office, through channels within four (4) calendar days after the incident. Submit three (3) copies: 1-Company File, 1-Assistant Chief in charge of equipment and 1-FASO.
- 250.03** The immediate Assistant Chief shall investigate all incidents objectively and without pre-conceived notions. He shall analyze the circumstances of the accident, record his findings as to whether the accident was avoidable and make his recommendations to prevent future accidents. In case of negligence or improper use and care, employees shall replace the lost or damaged tools and equipment at their own expense.
- 250.04** Damage reports through negligence or improper use and care on the part of employees shall be placed in the individual's personal file.
- 251.01** USE OF PAK RADIOS (80-8). To prevent or minimize loss or damage to our Pak Radios, whenever Pak Radios are used, they shall be used in their carrying cases with straps for protection.
- 251.02** Commanders shall be held responsible for any deviation of the above rule.
- 251.03** PORTABLE RADIOS (85-23). Cost to repair portable radios that have sustained damages are expensive. How and why these damages are incurred is unknown. The reports received state, "found in this condition". Motorola's investigation reveals the cracks are due to excessive force applied between the housing and battery, not because of material and workmanship deficiency.
Note: It can only be speculated the damage is occurring during the battery change without depressing the release button, or by sitting or squatting with the radio out of its carrying case and in the user's pocket. If this speculation is correct, then corrective action should be taken. Is suspension worth the non-compliance of departmental policies?
- 251.04** To avoid further "phantom" damages, it shall be the responsibility of the on-duty commander to physically check and ensure that all portable radios are free of damage, and so noted in the daily log prior to going off shift.
- 260.01** FIRE HYDRANT MAINTENANCE AND INSPECTION. Effective September 1, 1983, hydrant maintenance will be limited to yearly flow tests and quarterly inspections.
- 260.02** Weed control shall be the responsibility of the Public Works Department, with repairs and painting to the Water Supply. The Fire Department shall insure proper operating condition by periodically opening all caps and flow valves.
- 260.03** A new hydrant condition report form will be issued shortly. Notification of deficiencies to responsible departments shall be indicated on this new form.



- 260.04** With reference to Memorandum no. 83-17, the following procedures will be effective when forms are made available:
- a. All fire hydrant reports will be done on a revised HFD 41, Monthly Fire Hydrant Inspection and Condition Report, HFD 41 (revised).
 - b. Each station will submit a report each month. Assignment for compiling the report will be left to the discretion of the Station Commander. Report will be submitted by the end of the third work shift at the beginning of each month or before the 10th.
 - c. Report will contain conditional hydrants that need to be repaired and/or maintained.
 - d. Form will also be reporting hydrant use with the approximate total gallonage water use noted in the "Remarks" column (reverse side).
 - e. Hydrant inspections will be conducted as scheduled routinely. Identify hydrant systems relative to a target hazard and annually conduct a Fire Flow test; e.g. Target Hazard - Kaiko'o Shopping Mall Hydrant System - Hydrant Nos. __, __, etc. - Fire Flow Test __gpm. Follow recommended practices outlined in NFPA 291 -1977, Fire Flow Testing and Marking of Hydrants.
 - f. Name of person making the inspection will be filled in the appropriate column provided.
 - g. When stuck, frozen, or tight valve stems and caps are encountered, report it immediately. **DO NOT USE EXTENSION HANDLES ON HYDRANT WRENCHES.** Personnel will be held accountable for broken wrench.
 - h. When no repair and/or maintenance is required, the Station Commander will sign after the "NO DEFICIENCIES TO REPORT..." statement.
 - i. Before maintenance responsibilities are referred to the Department of Public Works, areas surrounding all fire hydrants will be cleared and properly maintained. This office will not tolerate any complaints from Public Works of hydrants being poorly kept (overgrown with weeds and shrubs before transfer is made).
 - j. All applicable procedures outlined in the Procedures Manual, paragraphs 260.01 through 263.03 will be followed until amendments are made.
- 261.01** OBSTRUCTION TO FIRE HYDRANTS. Fire Department personnel, whenever they discover obstructions to either public or private fire hydrants that would interfere with use of the hydrant, shall report this to Fire Control immediately. Information they should provide is the location of the hydrant, its number and the nature of the obstruction.
- 261.02** Fire Control shall take the following actions:
- a. Request police to have illegally parked vehicle(s) removed.
 - b. Notify the Public Works Department of obstruction(s) to public hydrants other than parked vehicles and suggest removal.
 - c. Notify the owner of the premises (if can be located) of the obstruction(s) to their hydrants other than parked vehicles and suggest for its removal.
 - d. If the hydrant obstruction(s) cannot or will not be removed as suggested, advise the appropriate Assistant Chief on duty and the respective Fire Companies. This advisory will be documented.

10XX	Care and Use of Fire Apparatus (<u>LEGACY</u>)	
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e. All actions will be documented in the Fire Communication Control Journal.

- 261.03** Respective Commanders will keep abreast of the situation until satisfied.
- 261.04** Date and time obstruction reported to FCC will be documented into the Station Journal.
- 262.01** REPORTING DAMAGED FIRE HYDRANTS (82-9). When reporting (verbally) hydrant discrepancies to Fire Control which require prompt attention by the Department of Water Supply, it is requested that the make of the hydrant be noted and included in the report to expedite repairs.
- 262.02** When receiving reports of broken, busted or leaking hydrants from the general public, the responsible Fire Company will make a visual inspection of the hydrant and report to Fire Control the make, location and damage(s) assessed.
- 262.03** Reports of hydrant damages or discrepancies will be entered into the station journal. Responsible individuals (other than the officer-in-charge) will place their initials after making the entry, at the end of the report. Quarterly hydrant reports to the Fire Chief will include all actions taken.
- 263.01** FIRE HYDRANT USE (85-28). The Department of Water Supply is developing a system to account for all water produced. They request a report on all incidents of water usage through fire hydrants.
- 263.02** Submit a Monthly Fire Hydrant Usage Report form for this purpose at the end of each month.
- 263.03** Assistant Chiefs to compile reports and submit to FASO for redistribution to the Department of Water Supply.

10XX	Care and Use of Fire Apparatus (<u>LEGACY</u>)	
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HELICOPTER OPERATIONS

- 270.01** APPROVAL OF FLIGHT. All emergency fire and rescue missions must first be approved of by the Assistant Fire Chief. The helicopter will be utilized by Assistant Fire Chiefs for fire and rescue operations only.

- 270.02** All non-emergency Fire Department missions to include training, Police Department missions, must first be approved of by the Fire Chief, or the Deputy Fire Chief in the Fire Chief's absence, or the Assistant Fire Chief in the Deputy Fire Chief's absence.

- 270.03** All non-Fire/Police Department missions must first be approved of, by the Fire Chief, or the Deputy Fire Chief in the Fire Chief's absence, or the Assistant Fire Chief in the Deputy Fire Chief's absence. It will be the pilot's responsibility to have the waiver of liability form signed.
 Note: * AC-2 revision

- 271.01** PILOT'S RESPONSIBILITIES. The helicopter must be in readiness to perform flights on short notice. To accomplish this, pilots shall not leave Stations 2 and 14 during normal operating hours for any personal business or activities.

- 271.02** Pilot must maintain availability at the heliport during regular standby hours so that no longer than ten (10) minutes elapses between the time dispatch orders are received and time helicopter is airborne in the configuration of the mission.

- 271.03** Minimum crew for the helicopter shall be one certified pilot. If possible, a Rescue Specialist of permanent rank shall serve as crew member.

- 271.04** For Chopper 1, standby hours shall total eight (8) daylight hours, seven (7) days a week. For Chopper 2, standby hours shall total 24 hours. One (1) hour lunch breaks permitted with pilots remaining at duty stations and making arrangements to have their meals there. After standby hours, the pilot for Chopper 1 shall be on-call and must inform the County's representative how he can be reached during emergencies and must be available to the aircraft and airborne within twenty-five (25) minutes of dispatch order. No on-call hours for Chopper 2.

- 271.05** The pilot will not consume any alcohol while on duty and on call and will not consume any alcohol 16 hours prior to duty status.

- 271.06** The helicopter pilot is in command of the aircraft and will fly the helicopter in a responsible and competent manner within the standards set forth by the manufacturer and the FAA. He shall determine whether the operation desired is safe. With his concurrence, Chief officers on duty shall be authorized to deviate from normal procedures when deemed necessary.
 Note: *AC-2 revised

10XX

Care and Use of Fire Apparatus (LEGACY)



- 271.07** Until further notice, County, State, and/or Federal use of the Hawaii County Helicopter is limited to their employees only. All others shall request authorization via the Mayor's office.
- 271.08** All requests for use of the Hawaii County Helicopter, "other than" County, State, and/or Federal agencies, shall require authorization via the Mayor's office.
- 271.09** Until further notice, the Hawaii County Fire Department, Fire Chief and/or Deputy Fire Chief, remain the authorizing agent for County, State, and/or Federal agencies' requests.
- 271.10** Waiver forms will be required for all agencies/employees other than Hawaii County.
- 271.11** Logs will include all names of passengers (badge numbers not sufficient). Pilots will be held responsible for this information.
Note: * Feb. 25, 1991
- 271.12** Non-emergency use of the rescue helicopter shall be scheduled for hours between 0800-1500, Monday through Friday, in order that post-flight maintenance may be completed by 1800 hours.
- 271.13** Use of standby helicopter shall be for emergency missions only!
Note: * August 6, 1986 Memo revision 86-28
- 271.14** Until further notice, helicopter service shall be guided by the following procedures:
- a. Life threatening emergency situations requiring services of a helicopter.
 - b. Uncontrolled brush fire situations endangering numerous structures and require coordination of more than three fire companies and tankers.
 - c. All searches (land and sea) shall be conducted by available means within the department's inventory.
- Note: * September 12, 1985
- 271.15** The bulk of missions to be flown will take place on the Island of Hawaii, but at times, the helicopter and crew may be dispatched to other islands.
- 271.16** Helicopter water bucket operation will not be conducted during periods of darkness.
- 271.17** Night flights will be conducted only for emergencies and with approval of the pilot.
- 271.18** The helicopter pilot must be familiar with the geography and topography of the island of Hawaii.
- 271.19** Any other safety measures to be taken to insure safe helicopter operations which are not covered or enumerated by other guidelines rest with the pilot and no one else.



271.20 It will be the pilot's responsibility to keep their pilot's and medical certifications current.

272.01 FLIGHT RESTRICTIONS

- a. The helicopter shall shut down at least once each 2.5 hours of flight to allow the pilot a rest period. When pilots are changed during refueling, the helicopter need not be shut down.
- b. When flying low levels, sling loads, and water bucket operations the maximum flight time during one duty day will be 10 hours.
- c. Weather minimums:
 1. local flights:
 - 500' ceiling 1 mi. visibility
 2. day-cross island:
 - 1000' ceiling 2 mi. visibility
 3. night local:
 - 800' ceiling 2 mi. visibility
 4. night cross isle:
 - ceiling 3 mi. visibility

Note: *The above minimums are guidelines and the ultimate decision to fly will be with the pilot.

273.01 BILLY PUGH NET (76-38).

- a. The Billy Pugh net will be onboard the helicopter on all missions.
- b. The Billy Pugh net may be removed with the permission of the Assistant Fire Chief at brush or wildland fires at the request of the pilot. The Billy Pugh net will be kept in readiness at the helipad for immediate use.
- c. The Billy Pugh net will be routinely checked monthly and after each use for the purpose of maintaining, assessing damages, and normal wear.
- d. Rescue personnel will receive water extrication training semi-annually. On land simulation will not be an acceptable alternative to actual training in the water.

Note: *AC-2 revision

274.01 WATER BUCKET

- a. The water bucket will be onboard the Fuel Truck at all times, and to be transferred into the helicopter prior to response to Brush Fire.
- b. A spare will be kept on the fuel truck whenever possible.
- c. All pilots shall participate in actual water pick up and perform water drops on prescribed targets at least once quarterly.
- d. All personnel assigned as a crew member onboard the helicopter will be trained and demonstrate the ability to hook up and adjust the bucket to the amount of water to be picked up as determined by the pilot.
- e. The water bucket will be inspected once monthly and after all missions for damages and wear.

10XX

Care and Use of Fire Apparatus (LEGACY)



- f. The water bucket will receive periodic maintenance to assure proper maintenance and operation by the helicopter mechanic.
- g. The water bucket will not be attached prior to response of the helicopter and will be removed prior to return of the helicopter.

Note: *AC-2 revision

275.01 PROCEDURE FOR USE OF HELICOPTER FOR DROUGHT EMERGENCY MISSIONS.

- a. Refueling and repairing of equipment.
 - 1. Water Supply to contact C.D. to arrange use of the helicopter.
 - 2. C.D. to contact Assistant Chief on duty for approval to use helicopter and schedule the mission.
- b. Emergency repairs of water lines and other appurtenances where use of the helicopter is essential.
 - 1. Follow same procedure as in A.
- c. All other missions
 - 1. Follow normal procedure.

276.01 POLICE HELICOPTER PROCEDURES. To insure quick conversion of the helicopter from Police to Fire Department use, the following procedures will be employed.

- a. A Fire Rescue Specialist will be on board when the helicopter departs and returns, on all missions.
- b. Should it become necessary for the helicopter to fly without any passengers or with a full crew of police officers, the Fire Rescue Specialist will be left on the ground in an area that will allow the helicopter to pick him up in an emergency and he will be in the company of a police officer. The Fire Rescue Specialist will not be allowed to be alone on a police mission.
- c. A Fire Rescue Specialist will accompany the fuel truck whenever a police mission is to operate beyond 10 minutes of flying time from either rescue stations. Direct flights between the 2 rescue stations is excluded.
- d. On board fuel should be maintained at one half of the maximum flight time whenever possible during the course of these missions and full prior to returning to base.

Note: *AC-2 revision

277.01 AIRCRAFT USE RECORD. Memo revision 84-11. Reporting of HFD radio number or HPD badge number (Police mission) of person accompanying pilot will be entered in the column marked "Pilot Crew."

277.02 Helicopter will be utilized by Assistant Chiefs for fire and rescue operations only.
Note: Memo revision (85-13)

10XX

Care and Use of Fire Apparatus (LEGACY)



- 277.03** Assistant Chiefs will not authorize utilization of helicopter for observation flights or to ferry personnel into eruption area. All such requests will be directed to the Mayors office in writing. Upon receipt of written approval, this office will make final arrangements.
- 278.01** FLIGHT SUITS AND HELMETS. Memo revision 86-2. Issued or available safety equipment shall be worn by all primary crew members during helicopter flights (Assistant Chiefs included).
- 278.02** Exceptions:
- a. Rescue Specialists
 - Brush fire jackets may be worn in lieu of flight suits for ocean rescue missions only.
 - b. Fire Fighting Personnel
 - Personal turnout coat or brushfire jacket and HFD helmet may be worn in lieu of flight suits.
 - c. Outside Passengers
 - Safety equipment optional: if available.
- 278.03** Maintenance. Care and sanitization of flight helmets shall be the responsibility of the crew on duty at the time of its use. Cleaning of community flight suits shall be through FASO.
- 279.01** HELICOPTER REPORTS
- a. Officer on duty shall submit an incident report upon termination of all flights. Non-emergency flights are those that are utilized by the Mayor, members of his cabinet and/or any flights authorized by the Fire Chief or the Deputy Fire Chief for non-emergency use.
Note: Incident reports shall be submitted prior to going off duty.
Note: Assistant Chiefs to ensure compliance.
Note: * Feb. 10, 1989 Memo revision 89-1
 - b. Aircraft Use Records and Invoice
 1. Shall be submitted by pilot.
 - c. Aircraft Fuel Reports
 1. Shall be submitted by pilot.
- 280.01** CONTRACTUAL OBLIGATIONS FOR PILOTS. You are to enter into your daily log book, for record purposes, upon receipt of an alarm requiring the use of Chopper-1:
- a. Time pilot notified to perform flight.
 - b. Time pilot reported for duty.
 - c. Time aircraft lift-off and 10-1.
- 280.02** This is to verify contractual obligations by pilots for regular standby hours so no longer than ten (10) minutes elapses between the time Dispatch orders are received and the time aircraft is airborne.

10XX

Care and Use of Fire Apparatus (LEGACY)



280.03 After standby hours, pilot shall inform FCCC how he can be reached during emergencies, and must be available to the aircraft and airborne within thirty (30) minutes.

280.04 Any discrepancies regarding the above shall be immediately reported to the Assistant Chief on duty and/or the Deputy Fire Chief.

*Apr. 15, 1986 Memo revision #86-10

281.01 GROUND SAFETY.

- a. Personnel should never locate themselves beneath the helicopter when a sling load is being transported. Such sling loads may accidentally become detached or the pilot may find it necessary to jettison the sling load to avoid an accident. Pilots shall avoid flying over populated areas with a sling load.
- b. Fire Fighting equipment, personal equipment, lunch containers or anything that could be picked up by the helicopter prop turbulence shall not be kept in the immediate area of the heliport/helispot.
- c. Unless goggles are worn, do not face the helicopter as it is landing, hovering, or taking off.
- d. The pilot's approval must first be obtained before anything is stowed in or on the helicopter. Cargo must be stowed and secured as not to cause damage to the helicopter.
- e. It will be the pilot's responsibility to see that the load is secure and does not exceed the manufacturers specifications for maximum load.
- f. Wind direction shall always be indicated by either fixed flagging or streamers, which is preferable, or by holding hands up with the individual's back to the wind.
- g. The seat belts shall always be fastened and adjusted prior to flight and shall be removed only with the approval of the pilot.
- h. Do not fix eyes on the tail rotor while the tail rotor is turning.
- i. The danger area around a helicopter shall be all areas to the rear of the cargo hatch or exhaust port. Do not venture beyond this point.

Note: *AC-2 revision

282.01 AIR SAFETY.

- a. Personnel shall not smoke in the aircraft.
- b. Personnel shall keep clear of all helicopter controls.
- c. Maps, papers, and loose articles shall be placed in a secure place during flight to avoid distracting the pilot and or getting in the way of flight controls and gauges.
- d. Helmets with chin straps will be worn when in flight.
- e. Assist the pilot by keeping alert for hazards such as power lines, utility poles, trees, brush, other natural hazards, and other aircrafts while in flight and while taking off and landing. Also assist the pilot by keeping a close watch on tail rotor clearance on takeoffs and landings.
- f. All passengers will refrain from unnecessary conversation on the intercom during takeoffs and landings.



- g. During precautionary and emergency landings, it will be the pilot's responsibility to inform the airport tower as to the location. The passenger in the front seat has the responsibility to inform Fire Communication Control of the location.
 - h. It will be the pilot's responsibility to file a verbal flight plan with Fire Communication Control prior to take off and call in the helicopter's location to Fire Communication Control every 15 minutes while in flight.
 - i. Permanent members of the flight crew shall be attired in NOMEX flight suits, flight helmets, gloves, and boots when not on water rescue missions.
 - j. Rappelling from County helicopter is prohibited.
- Note: *AC-2 revision

283.01 MEDICAL EVACUATION PROCEDURES. The following safety procedures shall be employed, as far as practicable, for all medical evacuation operations at the Hilo Hospital Heli-port.

- a. All personnel, medic units and fire apparatus will stay clear of aircraft approach areas until the aircraft has safely landed.
 - b. All personnel shall remain inside their units at the designated "standby" areas.
 - c. Movement into Operational Area: Engine will be in "pump-in operation" with one fire line extended within close proximity of the aircraft.
 - d. Of utmost importance, all personnel within the operational area shall wear their personal protective safety equipment.
- Note: * May 17, 1985 Memo revision #85-7

284.01 HELIPORT AND HELISPOT SAFETY. The following conditions should be met whenever possible:

- a. Heliports/Helisports shall be located in areas clear of man made and natural obstructions and away from public accesses whenever possible.
- b. No one is allowed on the Heliport/Helisport when the blades of the aircraft are in motion unless directed by the pilot.
- c. Never approach the aircraft until signaled by the pilot.
- d. Always approach the helicopter from the front.
- e. At no time is anyone permitted near the tail of the helicopter.
- f. No Smoking within 50 feet of the helicopter.
- g. No running within 50 feet of the helicopter.
- h. Wind direction indicators will be provided at all Heliports/Helisports.
- i. Dust abatement will be carried out at all Heliports/Helisports, especially during refueling.
- j. Heliports shall be equipped with an adequate fire extinguisher.
- k. No loose articles and hats or caps without chin straps secured in place will be allowed within 50 feet of the helicopter.
- l. No smoking regulations and safety signs shall be posted at all landing and refueling areas.
- m. Never approach or depart the helicopter from the uphill side when the helicopter is landed on a slope.



- n. When around the helicopter, do not lift anything higher than your head.
 - o. No vehicle, i.e. ambulance, police car, except the fuel truck is to be driven within 75 feet of the helicopter.
 - p. An approach and departure path will be maintained until a change is requested by the pilot, but will not take affect until the ground crews can be notified.
 - q. When multiple aircrafts are put into service at an incident, the Fire Department pilot will designate flight paths and altitudes for other aircrafts.
- Note: *AC-2 revisions

285.01 TRANSPORTATION OF PERSONNEL. Safety procedure:

- a. All personnel being transported by helicopter is to first be briefed on the safety aspects by a member of the helicopter ground crew.
- b. No one is to approach or depart the helicopter without first obtaining the approval of the pilot or ground crew member.
- c. The helicopter shall be entered head and shoulders first and using only the hand grips installed on the helicopter.
- d. The passengers are to see that their doors are securely closed.
- e. Seat belts are to be worn throughout the entire flight.
- f. The helicopter shall be disembarked head and shoulders first and using only the hand grips installed on the helicopter.
- g. It will be the passenger's responsibility to see that the seat belts are returned to a loose position and placed on the seat without any portion of the seat belt outside of the helicopter.

Note: *AC-2 revisions

286.01 THE FOLLOWING REGULATIONS SHALL BE OBSERVED WHEN REFUELING HELICOPTERS AT HELIPOINTS OR HELISPOTS:

- a. Helicopter engine shall be turned off.
- b. Helicopter and gasoline containers shall be grounded.
- c. There shall be no passengers aboard the helicopter.
- d. A 15-pound CO2 extinguisher or a 15-pound dry chemical extinguisher shall be on hand.
- e. No smoking within 50 feet.
- f. No unauthorized persons within 100 feet.

286.02 When helicopter accessories such as hose trays and helitanks are being used, personnel shall not be standing directly beneath any portion of the ship or equipment.

286.03 A completed helispot shall be adequately marked.

287.01 REFUELING OPERATIONS. Fuel contamination testing:

- a. Collect fuel sample in a clean 1 quart jar and swirl. Samples are collected from the tank and nozzle.



- b. Check color against the background of the sky. If water is present, free water (water not in solution) will separate and lay in the bottom of the jar.
- c. Swirl the contents of the jar. Any free water and/or water in solution will cause the color to become cloudy.
- d. If water is detected in the tank sample, sump and continue to test until no more water is detected in the sample jar. Do not fuel any helicopter until sample shows no contamination.
- e. If water is detected in the nozzle sample, suspend operations immediately.
- f. Particles in sample can also be visually identified.
- g. If particles appear in the tank sample, sump tank until sample is clean.
- h. Do not use fuel if any nozzle samples give:
 1. Wrong color, not clear or bright.
 2. Particles are present.
 3. Water is present.

287.02 HOT REFUELING. To be allowed with compliances to the following:

- a. The pilot is not to leave the aircraft.
- b. Refueling personnel must have:
 1. 2 fire personnel with the following:
 - (a) Full bunker gear on, including gloves and head gear with face shield down.
 - (b) 1 person to man the nozzle and the other standing by with a charged nozzle or 20 BC rated extinguisher.
- c. Doors on the fueling side of the helicopter closed.
Note: *AC-2 revisions

288.01 Fuel Truck:

- a. Fuel truck will be properly maintained, clean, and reliable. Tank, plumbing, filters, and other required equipment should be free of rust, scale, dirt, and other contaminants. The fuel truck must have an effective brake system.
- b. Spare filters, seals, and other components for refueling will be stored in a clean dry area.
- c. The fuel tank shall be securely fastened to the truck bed and shall have a sump or sediment settling area of adequate capacity to provide uncontaminated fuel to the filter.
- d. Gasoline driven pumps shall have a shielded ignition system and a spark arrestor.
- e. Fuel filter and pump systems sizes should be compatible with the helicopter being serviced.
- f. Only hoses designed for dispensing of fuel should be used. Hoses should be kept in good repair.
- g. The fuel nozzle should include a 100-micron or finer screen, a dust protective device and a bonding clip or plug.
- h. The fuel truck will have adequate bonding and ground cables to be used when refueling.
- i. Fire extinguisher to be mounted in a manner to make it readily available at all times.
- j. The Fuel truck will have "NO SMOKING" signs with 3 inch letters visible from both sides and rear of the truck.



- k. The fuel truck will be conspicuously and legibly marked to indicate the nature of the fuel.
- l. The fuel truck is to be placarded with the proper DOT placard.
Note: *AC-2 revision

289.01 Fuel truck driver:

- a. The driver will demonstrate an acceptable knowledge of correct fueling procedures and of the fueling and safety equipment installed on the fuel truck.
- b. The maximum duty period including standby time is 24 hours. Eight consecutive hours of rest will be required before starting another duty period as the fuel truck driver.
- c. Fuel truck drivers will not exceed 10 hours of driving within a 24 hour period.
- d. Duty time includes standby or work status at any location.
Note: *AC-2 revision

290.01 HFD HELICOPTER LANDINGS AT SCHOOLS. There is continued concerns, and rightfully so, for the potentially hazardous situations created for the children and staff of schools, and for the community, during landings and takeoffs from school grounds. As per memo from the Department of Education, State of Hawaii, HFD helicopters will not be permitted to land on public school ground except under the following conditions:

- a. Helicopter demonstrations-static display, with prior approval.
- b. Medical emergencies where landings at the school or close vicinity is necessary.
- c. When no other landing site is available for HFD operations.

Note: County ball parks shall also be included in the above. In non-emergency operations, prior clearance/approval shall be obtained as much as possible. Ground security must be provided for all landings and takeoffs. Should landings be necessary and ground security not available, all precautions shall be exercised to insure public as well as firefighter and pilot safety.

Note: *Aug. 19, 1991

291.01 TRANSPORTATION OF PERSONNEL--SAFETY AND PROCEDURE. All personnel shall be familiar with the basic procedures for loading and unloading manpower to be transported by helicopter. Fire and police personnel should be especially aware of this procedure.

292.01 PRECAUTIONS--PERSONNEL APPROACHING TO EMBARK

- a. The pilot's approval for each approach and loading must first be secured before acting upon his signal.
- b. Personnel shall not approach the helicopter until it has completely settled down, unless instructed otherwise by the pilot or ground crewman.
- c. Personnel shall remove canteens from their belts before entering the ship.
- d. Personnel shall approach the ship from the front on the downhill side, keeping clear of the main rotor and tail rotor, and in full view of the pilot at all times.

10XX

Care and Use of Fire Apparatus (LEGACY)



- e. Long-handled tools, etc., shall be carried at the side in a horizontal position because such tools can inadvertently be raised into the rotor path with serious consequences.
- f. Helmets shall be worn with chin straps secured at all times.

292.02 PRECAUTIONS--PERSONNEL EMBARKING

- a. Hand tools, when carried, shall be placed in tool carriers or cargo racks if available.
- b. The cockpit shall be entered head and shoulders first.
- c. The safety belt shall be clear of the seat and properly secured (belts must be straight in order to latch properly).
- d. The personal belongings of passengers (jackets, canteens, lunches, etc.) shall be held securely on the lap. Nothing shall be placed on the floor.
- e. When carrying three passengers on a 3 passenger aircraft, including the pilot, the middle passenger shall keep his left arm on his lap in order to allow the pilot adequate room to operate.
- f. If the helicopter is equipped with doors, passengers SHALL NOT use or tamper with the red door handle. Use of this handle will jettison the door which may cause it to fly into the tail rotor.

--End--