



**SUBJECT: APPARATUS PREPAREDNESS GUIDE**

**GOAL:** To maintain apparatus in response condition.

**PURPOSE:** To ensure CCF&R apparatus & equipment are in response condition.

**SCOPE:** Applicable department personnel.

**DEFINITION:**

**A. First-Out**

Any apparatus that is the primary responder of that type for its station.

1. Station 2-1: E21, B21, fire season
2. Station 2-2: E 22, B22, fire season
3. Station 2-3: E23, B23, fire season
4. Station 2-4: E24
5. Station 2-5: N/A
6. Station 2-6: TO26, B26, BC21, fire season
7. Station 2-7: E27

**B. Second Out Status**

Any apparatus that is the secondary responder or an apparatus used to support a larger incident.

1. Station 2-1: E20, TE21, B21 non-fire season
2. Station 2-2: B22, non-fire season
3. Station 2-3: B23, non-fire season
4. Station 2-4: BO24, SR24
5. Station 2-6: E26, TE26, RH26, B26, non-fire season

**C. Staff Apparatus**

Any vehicles which the primary use is to conduct non-emergency Fire District business and is available to staff.

**D. Out of Service Status**

Not prepared for emergency response or to conduct District business.

**E. Apparatus Checks**

1. Quick Check – A check that screens for major problems and is used on any apparatus that has not been used since the last weekly check.



2. Daily Check – A check that is performed on any apparatus that has been used since the previous day (staff apparatus receive only a Weekly Check regardless of use).
3. Weekly Check - A check that is more comprehensive and performed on **EVERY** apparatus that is stationed.
4. Monthly Check - A check that includes specific items and is performed on every apparatus that is stationed.
5. Inventory Check - A check of all equipment that is not permanently attached to the vehicle per Inventory Check SOG 550.10.05.
6. Ladder Check-A check of all operating parts on a ladder per Ladder SOG 550.10.06.

**F. Record Keeping**

1. To assure consistency and to help with communications, all apparatus checks shall be entered into the Firehouse Records management system.
2. Record the mileage and the person who checked the apparatus and not any deficiencies.
3. All maintenance issues shall be entered into Firehouse to assure the proper information is being passed on properly to the appropriate personnel. Enter under the apparatus number and enter the proper code for the problem found.
4. Maintenance issues shall be entered under a separate entry and not attached to the daily check section



PROCEDURE:

- I. Performance of the Apparatus Quick Check Procedure;
  - A. The Quick Check procedure may be performed on any Apparatus that has not been used since the last daily or weekly check.
    1. All weekly and monthly checks must be done per District SOG.
    2. Can be used if an apparatus has not been on a call, driven or utilized for a drill since the last time a complete daily or weekly check was performed.
  - B. How to perform the check:
    1. Use the SOG as a reference.
    2. In Firehouse (FH) click on Quick Check.
    3. At a minimum, the following items must be checked:
      - a. Engine or transmission oil leaks on floor.
      - b. Antifreeze/coolant leaks on floor.
      - c. Tire air (visual).
      - d. Voltage checks. (Meter or lights).
      - e. On-board SCBA
      - f. Medical oxygen
- II. Perform the Daily Apparatus Check Procedure on any First Out and Second Out apparatus that has been used. For example; after any response of the specific apparatus; after any out of station maintenance has been performed on the specific apparatus; or after any training session utilizing the specific apparatus. The check should occur at least once every seven days for all Apparatus. (Perform the check on Staff Apparatus once a week, preferably during the Weekly Check).

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- A. Walk Around Inspection.
    - 1. Check for cleanliness.
    - 2. Check for excessive fluid under apparatus (oils, antifreeze, water).
    - 3. Check for compartment and cab doors ajar.
    - 4. Make sure all external equipment is secured properly.
    - 5. Check for damage.
    - 6. Check for anything abnormal (loose wires, etc.).
    - 7. Make sure that under and around apparatus is clear of loose material.
    - 8. Sound tires.
    - 9. Check for open valves.
  
  - B. Compartments and contents inspection.
    - 1. Check compartments and contents for cleanliness.
    - 2. Check compartment contents for readiness.
    - 3. Make sure compartment contents are complete.
    - 4. Check that all power tools are properly fueled.
  
  - C. Top mounted and carried equipment inspection.
    - 1. Hose for proper amount, loads are correct, and nozzles for damage and cleanliness.
    - 2. Visualize ladders for damage and cleanliness.
    - 3. Visualize water and foam cell levels.
    - 4. Check all equipment for readiness, cleanliness, and damage.
  
  - D. In-cab equipment inspection.
    - 1. Check all portable lights, and radios operationally out of the charger.
    - 2. Check to see if all the components of the passport system are complete.
    - 3. Check to see if all the reference material(map book, etc.) is accounted for.
    - 4. Check remaining equipment (BA, headsets, etc) for readiness.
    - 5. Check cab for readiness and cleanliness.
    - 6. Check all radios to assure they are on Fire Tap.
    - 7. Check fuel gauge and add if below 5/8.
  
  - E. Engine.
    - 1. Check to see that all panel lights are operational.
    - 2. Check air gauges and allow to fill as needed.

3. Check to see that all interior lights are operational.
  4. Check to see if spot lights are operational.
  5. Check to see if mounted radio is operational and on Fire Tap.
  6. Check to see if windshield wipers are operational.
- F. Walk around inspection
1. Check all lighting systems; warning lights, high and low beam headlights, turn signals and hazard light, brake lights, backup lights, fog lights, telescoping side flood lights, rear flood lights, perimeter lights, compartment lights, and pump panel lights.
  2. Check pump panel for readiness.
- III. Perform the Weekly Apparatus Check Procedure on all Clark County Fire & Rescue First Out, Second Out and stationed Staff Apparatus. **The station or shift captain should only delegate the tasks below to persons who are adequately trained to perform the tasks. The District is willing to provide training to persons who regularly perform the weekly checks.**
- A. Apparatus
1. Bleed air tanks until water is no longer present.
  2. Check for proper bleeder valve operation. Lubricate valves with silicone spray.
  3. Check operation of ladder rack.
  4. Exercise PRV valve
- B. Engine compartment and fluid inspection checks.
1. Check engine oil level. **Only add oil when you are on the minimum level. Then add 1 gallon.** This will give you an exact fill amount. A diesel engine will seek its own level somewhere between full and minimum.
  2. Check radiator fluid level and add as needed with 50/50 solution.
  3. Check power steering fluid and add as needed.
  4. Check windshield wash level and add as needed.
  5. Check belts and around engine for anything abnormal (loose bolts, etc.)
  6. Check primer level and add as needed.
  7. Check engine temperature to assure engine block heater is operational.

- C. Start engine.
  - 1. Check oil gauge for pressure.
  - 2. Check voltage meter.
  - 3. When needed. Check to see if fans are operational.
  
- D. Placing apparatus in motion.
  - 1. Check mirrors to see that all doors are closed.
  - 2. Listen to transmission and engine for any abnormal noises.
  - 3. Listen to brakes for any abnormal noises and watch for loss of pressure.
  - 4. Once apparatus is at desired location, set brake.
  
- E. Walk around inspection while engine is running.
  - 1. Chock wheel.
  - 2. Check all lighting systems; warning lights, high and low beam headlights, turn signals and hazard light, fog lights, telescoping side flood lights, rear flood lights, perimeter lights, compartment lights, and pump panel lights.
  - 3. Check pump panel for readiness.
  - 4. Check under apparatus for leaking fluid (oils, water, etc).
  - 5. Check transmission fluid level and add as needed.
  
- F. Returning apparatus to truck bay.
  - 1. Listen to transmission and engine for any abnormal noises.
  - 2. Listen to brakes for any abnormal noises and watch for loss of pressure.
  - 3. Listen for backup alarm.
  - 4. Check backup lights.
  - 5. Check brake lights.
  - 6. Recheck gauges prior to shutting off engine.
  - 7. Set brake.
  - 8. Make sure ignition and battery switches are off.
  - 9. Plug shore line (hot start) in.
  
- G. Power Tools
  - 1. Check per Power Tool SOG 550.10.04.
  
- H. Electrical Equipment
  - 1. Operate all electric tools per Power Tool SOG 550.10.04.
  - 2. Check for proper operation.
  - 3. Make sure all accessories are present and operational.



4. Check portable scene lights for operation and damage.
  5. Check all power cords for wear and damage.
- I. Small Tools
1. Check small tools per Hand Tool Maintenance SOG 550.10.02.
- J. Schedule
1. Weekly checks for all response apparatus shall be done per station protocol.
  2. All non-staffed station apparatus shall have weekly checks done by assigned volunteers, residents and career staff as needed.
- K. Record Keeping
1. To assure consistency and to help with communications, all apparatus checks shall be entered into the Firehouse records management system.
  2. Record the mileage and the person who checked the apparatus and note any deficiencies.
  3. All maintenance issues shall be entered into Firehouse to assure the proper information is being passed on properly to the appropriate personnel. Enter under the Apparatus number and enter the proper code for the problem found. **Do not enter this under the Daily Check selection.**
- IV. Perform the Monthly Apparatus Check Procedure on all First Out, Second Out and stationed Staff Apparatus. **The station or shift captain will only delegate the tasks below to persons who are adequately trained to perform the tasks. The District is willing to provide training to persons who regularly perform the monthly checks.** If persons are not trained to perform the items below, please enter the problem into FH and Support will correct the problem.
- A. Check the battery terminals and cables for corrosion.
1. If corroded, cables and terminals should be cleaned with a wire terminal brush, and rinsed with baking soda & hot water solution, or a commercial battery cleaner. *Note - baking soda entering the battery will permanently damage it.*
  2. The case should be checked for cracks or leaks.
  3. Batteries should be tightly secured.
- B. Pump check - all secondary response vehicle pumps shall be checked during the Monthly checks:
1. Power-take off mid-ship pumps:
    - a. Operate and lubricate all valves with Teflon spray treatment.

- b. Place in gear, pull tank to pump valve, and check for pressure.
  - c. Check primer motor operation.
  - d. Operate pressure relief devices.
  - e. Clean all screens in the pressure release devices.
  - f. Back flush pumps
2. Self powered pumps:
    - a. Check engine fluids.
    - b. Check sediment bowl for cleanliness of fuel.
    - c. Check starter chord condition.
    - d. Produce prime.
    - e. Start pump, increase pressure to operating level.
    - f. Let run under load for several minutes (flow water).
  3. Hydraulic Equipment:
    - a. Check per Power Tool SOG 550.10.04.
  4. Foam System
    - a. Engage foam system and run until foam is produced
    - b. Turn proportioner through all settings (no more than 1 minute total time)
    - c. Flush system thoroughly.
- C. Wheel/Tire check
1. Check wheels for cracks and rust at lug nuts. Check tires for abnormal wear.
  2. All of the tires should be checked for cracks, deterioration or damage.
- D. Anti freeze Test – **done at service time.**
- E. Station
1. Air compressor
    - a. Drain water from trap.
    - b. Check compressor oil.
  2. Station generator
    - a. Check oil and fuel.
    - b. Inspect the exhaust system for leaks or cracks.
    - c. Check under and around for any fluid leaks.
    - d. Check engine temperature to assure block heater is operational.

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- e. Record inspection In FH.
  - F. Mako Machine
    1. Check oil level. Use specified Mako oil only. Located in the BA room cabinet.
    2. Check for any oil or air leaks.
    3. Check belt tension and alignment.
    4. Drain off excess moisture at valve located on the lower, right rear of the machine.
    5. Record inspection on the Breathing Air Center check sheet.
    6. Enter monthly inspection into Firehouse to include hours.
    7. Any maintenance that is done should be entered into FH along with associated costs.
  - G. Inventory Checks performed on the first weekend of the month per Inventory SOG 550.10.05.
  - H. Ladder Checks performed on the second weekend of the Month per Ladder SOG 550.10.06.
  - V. The following procedures are to be used as a means of maintaining District apparatus in a response ready state. The appearance of District apparatus reflects our professionalism to the public. By keeping the apparatus free of mud and road grime, the life of the paint and trim will be extended.
    - A. Vehicle washing (see Pierce Washing Apparatus bulletin located in the shared drive - S://1\_support\_services/apparatus/bulletins/washing\_apparatus)
      1. Hose all heavy soil and mud off with a garden hose.
      2. Fill wash bucket with proper amount of car wash soap.
      3. Use red handled brushes or soft wash mitt only on painted surfaces.
      4. Use black handled brush only on wheel wells and diamond plate.
      5. Wash all areas, making sure to get around pump panel and wheel wells.
      6. Wash all exterior mounted equipment. i.e.; ladders, pike poles and hard suction.
      7. If at any time your mitt or brush touch the ground, it must be rinsed prior to use.
      8. Rinse all soap from apparatus. Do not allow it to dry!

9. Dry all water from apparatus using cloth towels. Do not leave a film.
  10. Use extra care to remove all water spots from glass and mirrors.
  11. Do not use a cloth towel if it has dirt or mud on it.
  12. At no time should dish soap be used to wash apparatus.
- B. Cleaning Cab and jump seat areas:
1. Sweep entire floor area.
  2. Dust dash and all vinyl areas with a damp cloth.
  3. If needed clean all gauges with window cleaner.
  4. Clean inside of windows with window cleaner if needed.
  5. At no time should Armor All be used on the seats.
  6. If mud is on the floors, use a scrub brush and damp rag to clean.
  7. Wipe door jams with damp cloth.
- C. Compartment cleaning:
1. Wipe all compartment doors and jams with a damp cloth.
  2. Dust all items inside the compartment if needed.
  3. Wipe up any petroleum spills inside the compartment if needed.
  4. If inside of door is soiled, clean with window cleaner.
  5. If any tools inside the compartment are dirty, remove them and clean as needed.
- D. Tire cleaning:
1. Tires should be cleaned with a scrub brush.
  2. Rinse thoroughly after cleaning.
  3. Do not use any type of tire paint such as Tire Black.
- E. Waxing:
1. Apparatus must be free of any dirt or dust.
  2. Utilize Bug & Tar Remover to eliminate any remaining tar after washing.
  3. Make sure apparatus is dry.
  4. Check all surfaces for any dirt build up or grime not removed by washing. If any dirt build up is located, follow the section below on hand buffing procedures.
  5. Remove any light scratches by following the hand buffing procedure below.

6. Any heavy scratches that are through the paint, need to be reported to the shift officer as soon as possible. Follow up shall include an Accident Report.
  7. Apply a light coat of wax using a soft cloth in a circular motion.
  8. Use care not to apply too much as this wax goes a long way.
  9. Wait approximately 20 minutes or until the wax has dried to a white film.
  10. Use a soft dry cloth, in a circular motion, to remove wax film.
  11. Never wax an apparatus in direct sunlight or when the surface is over 75 degrees.
  12. Never wax over the top of dirt or tar.
  13. Always use a soft dry cloth.
- F. Hand Buffing - **THIS WILL ONLY BE DONE BY EXPERIENCED PERSONS:**
1. Apply a small amount of Swirl Remover to a soft cloth.
  2. Work into area in a circular motion until build up or scratch is gone.
  3. Wipe clean with a soft cloth.
  4. Apply wax as directed below in #6.
  5. Exercise caution not to remove/wear paint on any raised areas or corners.
- G. Power Buffing: **THIS WILL ONLY BE DONE BY PERSONS APPROVED BY THE DEPUTY CHIEF**
1. Use extreme care when power buffing as permanent damage can be caused.
  2. If you have never used a power buffer, practice first on an older apparatus supervised by an experienced person.
  3. Apparatus must be free of mud and dry.
  4. Do not buff in direct sunlight or if paint surface is over 75 degrees.
  5. Start on a flat surfaces, top, or trunk lid.
  6. Apply a small amount of Swirl Remover to an area 3'x3'.
  7. Using a clean pad, spread the compound in a back and forth motion.
  8. Use both hands to control the buffer. The buffer should glide on the body surface. Do not use any downward pressure.
  9. Work the compound in this area until you have a clean shining surface.
  10. Move to the next section and continue the process.

11. Move to the sides when the flat surfaces are completed.
12. Use the same procedure only apply the compound to the buffing pad.
13. Use extreme caution on all edges and raised areas. No downward pressure.
14. Clean your buffing pad when it starts to clog up. This is done using the roller wheel and applying it to the pad when the pad is turning at full speed.
15. After you have buffed the apparatus use a soft cloth to remove the dust.
16. Wax may now be applied, using the steps outlined in # 6.
17. **PERMANENT DAMAGE CAN BE CAUSED WITH A BUFFER!**

### **Responsibilities**

- A. Deputy Chief Support Services
  1. Approve SOG
- B. Battalion Chief
  1. Monitor check documentation.
  2. Perform checks on assigned apparatus.
  3. Determine repair methods.
- C. Captains/Shift Leaders
  1. Assign daily, weekly, monthly and spot checks to personnel.
  2. Monitor check procedures.
  3. **Assure that qualified personnel are performing and documenting the checks.**
  4. Assure completion of responsibility by checking Firehouse.
  5. Perform checks as necessary.
  6. Report unacceptable conditions to supervisor and determine repair methods as appropriate. Enter repair request into FH.
  7. It is the responsibility of the shift officer, to enforce this procedure and, to instill in their personnel a general sense of pride in the appearance of Clark County Fire & Rescue Apparatus.
- D. Approved Apparatus Operators
  1. Perform the daily and spot checks as assigned.
  2. Monitor non-AO personnel that are assisting in performing the checks and provide one-on-one assistance for those not familiar with the specific apparatus.

3. Only approved operators may sign off that apparatus weekly checks are complete.
  4. The responsibility for sign off lies with the approved operator.
  5. Anytime a District apparatus is returned to the station (emergency incident, detail, etc.) it is the driver's responsibility to make sure procedures #1 - #5 are thoroughly completed as directed by the shift officer. Due to time management considerations, it may be appropriate to wait to do a full cleaning as dictated by shift priorities, weather conditions, and time of day. Consideration must be given to public exposure, i.e. station tours and the like.
- E. Personnel that are not approved apparatus operators:
1. May assist only. Assistance may be performed only in the areas that the individual has received training. For example; EMS compartment may be checked by medically trained personnel familiar with the apparatus; the tool compartments may be checked by any firefighter familiar with the specific apparatus and so on.
  2. These personnel may not sign off on the forms.
  3. Firefighter - All firefighters will be responsible for demonstrating initiative in maintaining apparatus to parade specifications and will complete any of the above procedures as assigned.

#### VII. Reference

- A. Washington Administrative Codes 296-305
- B. National Fire Protection Association 1500 - A-4-4.1, A-4-4.5
- C. Washington Fire Service Training.
- D. Hand Tool SOG 550.10.02
- E. Power Tool SOG 550.10.04
- F. Inventory Check SOG 550.10.05
- G. Ladder SOG 550.10.06