## **Exhibit A**

## Scope of Work

## Annual Preventive Maintenance Requirements for seven (7) generators

- · Check for moisture, dirt; clean as necessary.
- Examine generators for moisture and dirt. Inform the District's Project Coordinator to arrange cleaning.
- Inspect for rodent infestation.
- Check and record battery system specific gravity and voltage of the pilot cell of each battery.
- Check the level of electrolyte. Refill to proper level. Record amount of water used. Abnormal use of water indicates overcharging.
- · Equalize charge, if required.
- Check that battery terminals are clean and cable connections are tight.
- Inspect wiring that is subject to movement that abrasion has not occurred.
- Check the governor, linkages, and ball joints. Check for unusual oil leakage.
- Check fan and alternator belts for condition and proper tension.
- Verify fuel supply.
- · Clean the fuel strainer, and dirt leg.
- Clean the crankcase breather.
- Service the engine, replace the oil and oil filter, and replace both fuel filters. Note the oil
  quantity, oil filter part number, fuel filter part numbers, an air filter part number Visual check for
  oil, water, or fuel leaks.
- Test antifreeze and adjust, parts not included.
- · Pressure test cooling system, tighten hose connections as required.
- Check engine heater operation.
- Record engine running time meter reading at start and end of test.
- Simulate normal power failure from a "cold start" by use of the test switch in the automatic transfer switch or by opening normal power supply from the site electrical distribution system. Observe and record time delay on start.
- Record cranking time (terminates when engine starts).
- Transfer the load to the site electrical distribution system and operate the unit normal load for a minimum of 30 minutes.
- Record AC voltage, frequency, and amperage.
- Record oil pressure, battery-charging rate, and water or air temperature after 15 minutes running time.
- Verify that battery charger is operating properly.
- While the unit is operating, thoroughly observe operation for any indication of defects or possible malfunctions.
- Checks exhaust system and muffler/silencer for leaks.
- Check gauges and meters for proper operation and reading levels.

- Check for proper supervisory signals. When applicable, supervised temperature and oil
  pressure circuits shall be mechanically closed and checked for proper signals
- · Record time delay on retransfer.
- Record time delay on shutdown on units so equipped.
- Verify that transfer switch normal position pilot light is illuminated, and isolating switch is closed —standby (emergency) and system is set for automatic start and transfer.
- · Verify that all alarm pilot lights off.
- Generator load bank test.
  - Attach Lockout/Tagout devices as required.
  - Isolate generator from facility load and conduct maintenance activities related to the engine and record the appropriate service information.
  - o Connect resistive or inductive load bank(s) as applicable to the generator.
  - Record engine running time meter reading at start and end of test.
  - o Manually start the engine and allow for warm-up time.
  - Start the load test.
  - Run test with requested load for a 2-hour interval.
    - 25% of the nameplate rating for 30 minutes
    - 50% of the nameplate rating for 30 minutes
    - 75% of the nameplate rating for 1 hour. For a total of 2 continuous hours.
  - Record AC voltage, frequency, and amperage.
  - Verify correct functioning of governor and regulator.
  - Record oil pressure, battery-charging rate, and water or air temperature after 15 minutes running time.
  - Verify that battery charger is operating properly.
  - While the unit is operating, thoroughly observe operation for any indication of defects or possible malfunctions.
  - Perform vibration test for each main bearing.
  - Checks exhaust system and muffler/silencer for leaks.
  - Check gauges and meters for proper operation and reading levels.
     Check for proper supervisory signals. When applicable, supervised temperature and oil pressure circuits shall be mechanically closed and checked for proper signals.
  - After the unit has operated for 25 minutes, log the operation to show at least the following information: engine and generator speed in R.P.M., operating voltage, frequency, operating amperage, engine temperatures, engine oil pressure, hour meter readings.
  - Disconnect load from generator.
  - Allow engine cool down cycle.
  - Disconnect load bank.
  - Remove Lockout/Tagout devices as required.

- o Return unit back to original operating mode.
- Perform any other work as prescribed by the manufacturer.
- After the unit has been operated, check lubricant and coolant according to manufacturer's instructions.
- Complete the Cedar River maintenance report specific to generators and provide a copy to the District.

## Annual Preventive Maintenance Requirements for two (2) Auxiliary Diesel Engines

- Check for moisture, dirt; clean as necessary.
- Check overall appearance of equipment and skid, debris build-up, loose wires or fasteners, damaged insulation, etc.
- Record pre-service hour meter reading.
- Conduct a pre-service check and record the results including; engine oil level, coolant level and protection level, engine heater operation, and radiator cap/gasket. Check battery electrolyte level and specific gravity, battery voltage, battery load test amperage, and battery charger operation and amperage for both batteries. Check battery cables for tightness and condition (parts extra). Check all hoses for tightness and hardening or softening (parts extra). Check drive belt condition and proper tension (parts extra). Check for fluid leaks. Check air filter (parts extra). Check the exhaust system for damage, loose connections, indication of leaks, and corrosion. Note any deficiencies or exceptions.
- Check engine heater operation.
- · Test antifreeze and adjust, parts not included
- Verify fuel supply.
- Clean the fuel strainer and dirty leg.
- Check the governor, linkages, and ball joints. Check for unusual oil leakage.
- Inspect wiring that is subject to movement that abrasion has not occurred.
- Test run the engine and check the operation of all gauges, record oil pressure, coolant temperature, DC amps, and DC voltage.
- Service the engine, replace the oil and oil filter, and replace both fuel filters. Note the oil quantity, oil filter part number, fuel filter part numbers, and air filter part number (if serviced).
- Collect oil sample and have it analyzed, provide results to the District.
- · Record post-service hour meter reading.
- Make any recommendations for additional services or repairs.
- Complete the Cedar River maintenance report specific to the diesel engine and provide a copy to the District.