**Seasonal Startup Procedures for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ NV000\_\_\_\_\_\_\_  
Standard Operating Procedure**

Before beginning the start-up process verify with \_\_\_\_\_\_\_ (*BSDW, SNHD or WCHD*) that you have adequately addressed all sanitary defects and deficiencies and are current on monitoring requirements. **Failure to address these items may delay the Approval to Operate.**

1. Inspect System

* Source Type and Number: Wells \_\_\_\_\_\_\_ Springs \_\_\_\_\_\_\_

Verify source facilities are clean, easily accessible, and free of non-potable materials. Check meter(s), screens, pressure gauges, seals, electrical connections. Damage may come from frost or excessive heat, vandalism, animals, insects or plants.

* Pumps: # of pumps \_\_\_\_\_\_\_ # of pump locations \_\_\_\_\_\_\_

Verify that pumps are free of leaks, lubricated with approved materials, and that no debris has accumulated in the operating area.

* Storage: Storage Tanks \_\_\_\_\_\_\_ Hydropneumatic Tanks \_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Storage Tanks *(check items below)* | Pressure Tanks |
| * Vent screens intact and undamaged | * Gauges in place and operational |
| * Hatch gaskets in place and resilient | * Tank bladders in good condition |
| * Hatch closes and seals completely | * Check tanks for rust, corrosion or other possible damage |
| * Overflow areas free of debris and channeled to allow free flow away from tanks |  |
| * Outflow pipes unrestricted and air-gapped *(air gap is 2 x the diameter of the pipe)* |  |
| * Level indicator unhampered |  |
| * Clean/scrub tanks if needed with NSF approved materials |  |

* Treatment: System does not treat \_\_\_\_\_\_\_ *(Check this line only if applicable)*

System uses treatment to manage the following analytes:

*(List materials needed for treatment process and provide the procedure used to verify that treatment is working properly in space below.)*

* Distribution:

Number of backflow devices requiring testing \_\_\_\_\_\_\_. *(Reminder: Backflow devices must be tested annually by a certified Backflow Tester.)*

Call to schedule testing *(list appropriate contact information* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Exercise all valves, gates, hose bibbs and faucets. Check air release valves for proper operation.

*(List items not mentioned above that should be checked on your system)*

* Repair or replace any faulty devices noted above.

1. Activate System.

* Record Meter Reading \_\_\_\_\_\_\_ No Meter \_\_\_\_\_\_\_
* Pressure Gauge Reading \_\_\_\_\_\_\_ No Pressure Gauge \_\_\_\_\_\_\_
* Inspect for leaks. Recheck entire system as outlined above, looking for sinkholes or muddy spots that could be from a leak, gauges with fluctuating pressure, pumps cycling on and off, pressure relief valves not seating, and pressure/bladder tanks that are waterlogged or blowing off air.
* Make needed repairs.

1. Disinfect *(Contact Bureau of Water Pollution Control to determine need for deMinimus Permit)*. <http://ndep.nv.gov/bwpc/diminimis.htm>

System does\_\_\_\_\_\_\_ does not\_\_\_\_\_\_\_ disinfect at start-up. *(If system disinfects, list procedure below, along with the disinfection material used.)*

System must hold disinfection in the piping for \_\_\_\_\_\_\_ hours. Verify that chlorination has reached all water distribution taps.

1. Flush system for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *(Insert time period to flush)*

* Flushing valve locations:
* Flushing Procedure is:

1. Verify Chlorine Residual

* Using test strips or an approved chlorine colorimeter to ensure that the system contains no chlorine if chlorine treatment system is not approved for your system.

*If system has approved chlorination, verify that the residuals are at normal levels and below 4.0 mg/L throughout the system.*

Method of chlorine measurement: Test Strips \_\_\_\_\_\_\_ Colorimeter \_\_\_\_\_\_\_

Chlorine level should be *(from previous year’s reporting average)* \_\_\_\_\_\_\_\_ mg/L.

*(Enter 0 if system does not have approved chlorination.)*

1. Collect Coliform Samples

* Samples will be taken from locations listed below.

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |

*(System may wish to take non-compliance samples before the next steps to ascertain effectiveness of disinfection and flushing.)*

* **Each location** above must be sampled for coliform on two consecutive days and return clean results on both days before the system can be approved to open for public use. If either day of samples does not pass, the system must disinfect again.
* Systems with approved chlorination must report chlorine residuals with the coliform samples.

1. Complete and Submit BSDW Seasonal Certification Checklist <http://ndep.nv.gov/bsdw/index.htm>.

* Complete the checklist noting any variations from this start-up procedure. Your signature on the checklist certifies that this approved start-up procedure was followed. Submit the completed and signed checklist to the state, including copies of the lab’s coliform results for review.
* The BSDW office will review the checklist information and notify when the PWS can begin public water service.

A copy of the checklist can be obtained from the website above or by calling \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Post-Season Shut-Down Procedure**

1. Verify that all required water system samples have been taken and results obtained before shutting down the water system.
2. Shut down the well.
3. Drain tanks.
4. Drain the system. Ensure all system in-line valves are OPEN and all terminal drains/taps are CLOSED.
5. Complete any repairs needed and address any deficiencies or defects that may have been identified since the season’s start-up.
6. Secure the system to protect from animal/rodent damage. Lock buildings and valves to keep out unwanted intruders and discourage vandalism.

*Post-Season Shut-Down Procedure is not part of the state approval process, but is included here for your convenience. The sanitary condition of distribution system piping and components observed at the time of start-up is a reflection of the condition in which the system was depressurized during shutdown. Leave your system, piping and components in as sanitary condition as possible.*