



**Revised Total Coliform Rule (RTCR)  
Seasonal Start-Up Procedures Certification Form  
System Remained Pressurized (Waiver); OR  
Seasonal Start-up Procedures (Certification)**

Beginning April 1, 2016, seasonal non-community public water systems are required to meet the reporting requirements specified in 40 CFR § 141.861 (a)(5): ***A seasonal system must certify, prior to serving water to the public, that it has complied with the State-approved start-up procedure.***

A system:

- May certify that it remained pressurized;  
Or
- Must perform a start-up procedure if it did not remain pressurized

<b>Certification that System Remained Pressurized <u>or</u> Has Completed the Start-up Procedure:</b>			
<b>PWS ID Number</b>		<b>AZ04-</b>	<b>PWS Name</b>
<b>The PWS will open for the season on the following date:</b>			
<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>System Remained Pressurized (Waiver):</b> The system maintained and operated at a pressure of at least 20 psi through the off-season. <b>Indicating "Yes", certifies that the PWS qualifies for a waiver from the start-up procedures based on keeping system pressure.</b>	
<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>	<b>Seasonal Start-up Procedures (Certification):</b> The system was depressurized, or, did not maintain a pressure of at least 20 psi through the off-season. <b>Indicating "Yes", certifies that the PWS used and completed the checklist on page 2 (placed on file with the system records and available upon request), and completed all of the start-up procedures on page 3.</b>	

<b>CERTIFICATION BY AUTHORIZED SIGNATORY:</b> <i>"I certify under penalty of law I am the person authorized to fill out this form, the water system has been inspected and reviewed as indicated above either under my direction or supervision. The water system is ready to operate for the current operation season, I believe the information submitted is true, accurate, and complete."</i>			
<b>Printed Name</b>		<b>Date</b>	
<b>Signature</b>		<b>Phone Number</b>	
<b>Title/Relation to PWS</b>		<b>Certified Operator Number (if applicable)</b>	

**After completion of the start-up procedures, submit this page only, no later than 10 days prior to the system's seasonal start-up date to the system's regulatory agency and copy ADEQ.**

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Drinking Water Monitoring and Protection Unit  
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Arizona Department of Environmental Quality  
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33 N. Stone Ave., Suite 700  
Tucson, AZ 85701  
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**A copy of all three pages of the completed form must be maintained on file by the PWS.**



## Revised Total Coliform Rule (RTCR) Seasonal Start-up Procedures Checklist

Use this checklist if the water system was depressurized, lost pressure, and/or was fully shutdown during the off-season.

<b>PWS ID Number</b>		<b>PWS Name</b>	
<b>Date Performed</b>		<b>Name and Title</b>	

**Keep the checklist and Start-Up Procedures in the PWS's records.  
Do not submit this page with the Seasonal Start-Up Certification Form.**

	DESCRIPTION	DATE COMPLETED	CORRECTIVE ACTIONS AND NOTES
Inspection	<b>1. Wellhead cap</b> Secured, seals intact, no openings, 2-foot vent with vent screened.		
	<b>2. Well Slab Area</b> No cracks, area for 100 feet maintained clear of fuels, animal manure, fertilizers, etc.		
	<b>3. Well house or Pump house (if applicable)</b> Inside clean, well number posted outside, no clutter, good housing keeping, doors locked, any leaks repaired.		
	<b>4. Well enclosure or fencing (if applicable)</b> Fence/enclosure in good repair and locked.		
	<b>5. Treatment facilities (if applicable)</b> Verified: operational, proper chemical storage, maintained as approved, and test equipment operational.		
	<b>6. Storage Tank (if applicable)</b> Tank integrity good, no holes, hatch seal, hatch lock, vent and overflow screens ok, level gauge operational.		
	<b>7. Distribution piping, valves and service lines</b> Valves and blow-offs exercise, any leaks repaired.		
	<b>8. Dump Station Cross Connection Control</b> Testable backflow device(s) tested annually. See page 3.		
	<b>9. Sampling Locations</b> Clean, accessible, 12" above floor an up-to-date, approved written sampling plan.		
Disinfection	<b>10. System Shock Disinfected</b> See page 3 for dosing recommendations.		
	<b>11. System Flushed to between 1.0ppm and 0.2ppm.</b> See page 3 for dosing recommendations. <sup>1</sup>		<sup>1</sup> Note: Pool test kits are not allowed.
Monitor	<b>12. Startup Bacteria sample(s)</b> Collected from system after flushing, sent to lab, taken prior to beginning monthly bacteria testing. <sup>2</sup> Take as special purpose sample and return to regulatory agency with this form.		<sup>2</sup> Note: A compliance sample is <u>required</u> the first month you are open. See your <b>Master Sampling Schedule</b> .
Operator	<b>13. System has an Operator</b> System has a certified operator at proper grade and type, certified operator was notified of system startup.		
Report	<b>14. Start-up Certification Form (see Page 1)</b> Submit to AZDEQ after completion of start-up procedures.		

The ADEQ Groundwater Inspection Checklist may also be used and kept on file.



## Revised Total Coliform Rule (RTCR) Seasonal Start-up Procedures Checklist

Use this checklist if the water system was depressurized, lost pressure, and/or was fully shutdown during the off-season.

**When you sign and submit page 1 of the *Seasonal Start-Up Procedures Certification Form*, you are certifying that you have completed all of the start-up procedures, including:**

- Flushed all pipes.
- Cleaned all water storage tanks (if applicable).
- Disinfected entire water system.
- Inspected the entire water system using the ADEQ required checklist (see prior page).
- Repaired water system (if applicable).
- Collected special purpose samples to test for bacteria and disinfectant residual and submitted with this form to your regulatory agency.

### **Cross Connection Control and Dump Stations (A.A.C.R18-4-215)**

A testable backflow device should be installed at the waste dump station(s) to ensure no backflow can occur. Wherever these devices are installed they are to be tested annually as part of rule and regular start-up procedures. It may be advisable to protect the device from freezing and by installing a sediment filter ahead of the device.

Please be aware that **reverse flush valves** (e.g. Hydro-Flush, Flush King, RV Dual Flush) contain a valve mechanism incorporated into a PVC connector which allows fresh water under pressure to be connected to the wastewater holding tank for flushing and cleaning. Systems allowing the use of reverse flush valves **must** install a testable backflow device on the potable water supply line *anywhere these devices may be used*.

### **Disinfection Dose for 50 ppm (mg/L) with Standard Bleach (8.25%) or 70% Chlorine Pellets**

Shock disinfection of the water system components is required as part of start-up procedures for systems which were either shut completely down, loss system pressure below 20 psi during the off-season, following any work on the system or positive bacteria detections. Follow the instructions in ADEQ Engineering Bulletin #8 (Section V.C., pg. 21), "Disinfection of Water Systems". The bleach can be mixed into five gallons of water to be poured down the well casing to deliver the solution to the water level. Allow proper mixing followed by 12 to 24 hours holding time for the disinfection to be effective. Disinfection doses should reach, but not exceed, **50 ppm** depending on the conditions. **DO NOT** use pool bleach additives as these contain algacides and are not certified for drinking water use. **DO NOT** use any laundry bleach with contains any additives like fragrances, whiteners, softeners, or other chemicals. Use liquid bleach as it mixes readily. Wells deeper than 200 ft. may require pellets in addition to bleach to improve dispersion deep into the well. Approximate doses for 50 ppm (8.5% bleach) are:

#### **6-INCH DIAMETER DRILLED WELL**

<b>Water Depth</b>	<b>Water Volume</b>	<b>8.5% Bleach Volume</b>
70 ft.	100 gal	7.5 oz.
100 ft.	150 gal	11.25 oz.
150 ft.	220 gal	16.5 oz.
200 ft.	300 gal	22.5 oz. and/or 30 pellets

After 12 to 24 hours of contact time, chlorine should be flushed to waste via a blow-off or hydrant. Flush to waste until the free chlorine level is less than 1.0 mg/l free chlorine. When flushing, DO NOT dispose of the chlorinated water into a stream or pond as it will kill aquatic life. Be careful to use the proper dosage and dechlorination tablets or aeration should be used to decrease the chlorine in the flush water. Adjust bleach volumes up for 5% bleach and down for 11% bleach.

### **FOLLOW-UP ACTION**

It is recommended that bacterial sample(s) be taken after the chlorine has been flushed from the system to ensure that the disinfection has been successful. Bacteria samples should not be taken until all chlorine has been flushed away. For special (non-regulatory) bacteria samples use sampling code 'S'.

**For more information or questions contact:**

**Drinking Water Monitoring and Protection Unit**

**602-771-6403**