

# Forest View Acres Water District

Operations Report – January / February 2018

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ORC Water Professionals

## Arapahoe Water Plant

- The plant produced 1% of demand
- Purged Chlorine Analyzer as Needed
- Ran plant occasionally – During water leak on the 11<sup>th</sup> of February
- Replaced Tubing on Chlorine Feed Pump
- Plant Checks, Mixed Chemicals

## Booster Pump Station

- Checked Booster Station

## Distribution

- Meters Read on 26 January and 26/27 February
- Monthly BACTI's / HAA5/TTHM Samples

## Surface Water Plant

- The plant produced 99% of demand
- Plant stayed online most of the month, flow rate; running at 35 gpm, inlet pressure holding around 90 - 95 psi. Getting 400 + Hour Runtimes between Backwashes.
- Completed monthly MOR report for state
- Pulled Raw Water BACT Samples – Two Times
- Replaced Housing on Chlorine Feed Pump – Cracked and Not Pumping Chlorine; Also replaced Stenner Pump Tube
- Recycle Line Cracked – Parts on Order to Repair
- Plant Checks, Mixed Chemicals

## Locates

- Completed 1 Locates for the Month
  - o Rockbrook Dr. – Gas Service

## Meters

- Installed New Meter on Red Forest Road – Ruptured Disc on Old Meter
- Have New Gaskets onhand so can start installing more meters

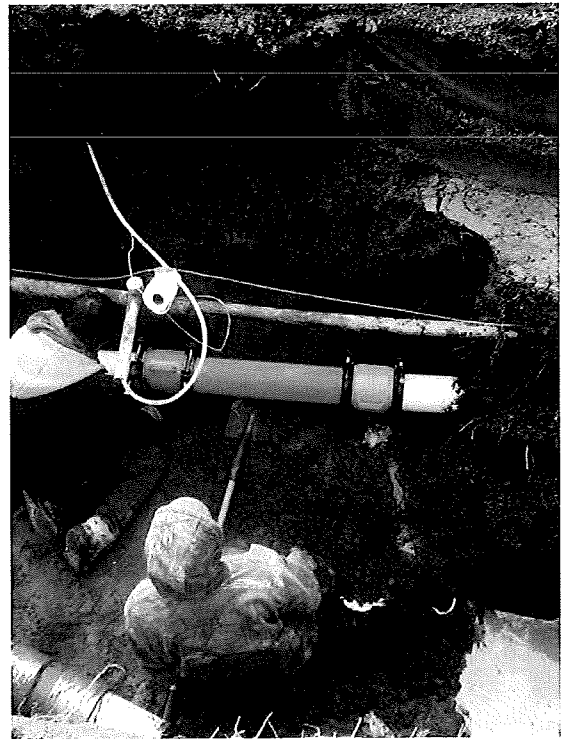
## Projects

- Shelving AWP – Not Started

### Production for the Month of January 2018

Year	Month	SWTP Production -BW	% of Total	AWP Production	% of Total	Total Production	Total Water Sold	Percentage Discrepancy
2018	Jan	1,488,302	99%	12,965	1%	1,501,267	1,084,766	27.74%
	Feb							
	Mar							
	Apr							
	May							
	Jun							
	Jul							
	Aug							
	Sep							
	Oct							
	Nov							
	Dec							
<b>Total</b>		<b>1,488,302</b>	<b>99%</b>	<b>12,965</b>	<b>1%</b>	<b>1,501,267</b>	<b>1,084,766</b>	<b>27.74%</b>
Year	Month	SWTP Production -BW	% of Total	AWP Production	% of Total	Total Production	Total Water Sold	Percentage Discrepancy
2017	Jan	1,476,520	95%	82,837	5%	1,559,357	1,130,141	27.53%
	Feb	843,516	55%	694,339	45%	1,537,855	1,197,399	22.14%
	Mar	933,106	64%	525,826	36%	1,458,932	1,153,797	20.91%
	Apr	-61,641	-3%	1,938,146	103%	1,876,505	1,125,505	40.02%
	May	-1,704	0%	1,882,925	100%	1,881,221	1,460,368	22.37%
	Jun	510,292	22%	1,791,321	78%	2,301,613	1,838,738	20.11%
	Jul	1,485,905	71%	612,294	29%	2,098,199	1,759,007	16.17%
	Aug	1,547,716	81%	365,535	19%	1,913,251	1,496,262	21.79%
	Sep	1,970,185	92%	181,321	8%	2,151,506	1,682,121	21.82%
	Oct	1,144,748	87%	172,706	13%	1,317,454	1,084,275	17.70%
	Nov	1,538,997	97%	40,476	3%	1,579,473	1,241,390	21.40%
	Dec	1,406,281	95%	72,983	5%	1,479,264	1,169,688	20.93%
<b>Total</b>		<b>12,793,921</b>	<b>63%</b>	<b>8,360,709</b>	<b>37%</b>	<b>21,154,630</b>	<b>16,338,691</b>	<b>22.77%</b>

\*Leak near the Corner of Red Forest and Forest View Rd. Approximately 200 gpm. Took awhile to isolate due to frozen valve lid and frozen water inside of valve box. J&K made repairs.



**Colorado Department of Public Health and Environment**  
 Monthly Operating Report (MOR) - Data Sheet  
Conventional and Direct Filtration

System Name: FOREST VIEW ACRES WD PWSID: CO012150 State Assigned ID: 001 Monitoring Period: Jun2017  
 Required Number of Turbidity Readings Per Day: 6 Required Number of Chlorine Readings Per Day: 2

Day	Combined Filter Effluent Turbidity (NTU)							Entry Point Residual Disinfection (mg/L)							Comments*	
	0a-4a Time: 000a	4a-8a Time: 600a	8a-12 Time: 900 a	12-4p Time: 1200p	4p-8p Time: 600p	8p-12 Time: 2000p	Highest Turbidity Reading	Highest Reading Time	12-4a Time:	4a-8a Time: 600 a	8a-12 Time:	12-4p Time:	4p-8p Time: 2000 p	8p-12 Time:		Lowest Residual Reading
1	PO	PO	PO	PO	PO	PO										
2	PO	PO	PO	PO	PO	PO										
3	PO	PO	PO	PO	PO	PO										
4	PO	PO	PO	PO	PO	PO										
5	PO	PO	PO	PO	PO	PO										
6	PO	PO	PO	PO	PO	PO										
7	PO	PO	PO	0.467	0.254	0.108	0.4674	13:39:00			0.43	0.4		0.4		NTU <0.3 w/ 15 min
8	PO	PO	PO	PO	PO	PO										
9	PO	PO	PO	PO	PO	PO										
10	PO	PO	PO	PO	PO	PO										
11	PO	PO	PO	PO	PO	PO										
12	PO	PO	PO	PO	PO	PO										
13	PO	PO	PO	PO	PO	PO										
14	PO	PO	0.751	0.155	0.11	0.175	0.751	11:37:00			0.8		0.9	0.8		NTU <0.3 w/ 15 min
15	0.148	0.119	0.79	0.131	0.236	PO	0.7899	9:12:33								NTU <0.3 w/ 15 min
16	0.123	0.103	0.292	0.144	0.24	0.129	0.292	9:02:00			0.8		0.55	0.55		
17	0.209	0.078	0.182	0.403	0.171	0.248	0.4033	15:09:00	0.4	0.7				0.4		NTU <0.3 w/ 15 min
18	0.143	0.146	0.15	0.302	0.029	0.02	0.3016	13:41:00				1	0.9	0.9		NTU <0.3 w/ 15 min
19	0.037	0.146	0.129	0.064	0.291	PO	0.2912	9:48:00			1.1			0.8	0.8	
20	0.241	0.115	0.168	0.109	0.156	PO	0.2411	2:52:00	1			1		1		
21	PO	0.16	0.293	PO	PO	PO	0.2932	10:29:00			0.4	0.6		0.4		
22	PO	PO	PO	PO	0.161	0.288	0.288	19:52:00			0.8	1.3		0.8		
23	PO	0.284	0.065	0.096	PO	0.034	0.284	6:09:00		1		1		1		
24	PO	PO	0.053	0.07	0.077	0.434	0.4338	22:33:28			0.99		1.6	0.99		NTU <0.3 w/ 15 min
25	PO	PO	0.028	0.43	0.082	0.119	0.4298	13:51:52			0.8		1.3	0.8		NTU <0.3 w/ 15 min
26	PO	PO	0.037	0.188	0.056	0.078	0.1879	14:27:00		0.8		1.4		0.8		
27	0.078	PO	0.24	0.085	0.094	0.137	0.2403	11:01:00		1		1.5		1		
28	0.165	PO	0.095	0.203	0.157	0.264	0.2844	23:40:00		1	1.2			1		
29	0.126	PO	0.149	0.146	0.174	0.261	0.2608	22:45:00			1.6		1.4	1.4		
30	0.198	PO	0.159	0.16	0.173	0.179	0.1983	0:00:00			1.1		1.6	1.1		
31																

\*If the plant is offline input "PO" in the blank

\*If at ANY time the entry point residual chlorine falls below 0.2 mg/L, the system must

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**Colorado Department of Public Health and Environment**  
 Monthly Operating Report (MOR) - Data Sheet  
Conventional and Direct Filtration

System Name: FOREST VIEW ACRES WD PWSID: CO012150 State Assigned ID: 001 Monitoring Period: Jul2017  
 Required Number of Turbidity Readings Per Day: 6 Required Number of Chlorine Readings Per Day: 2

Day	Combined Filter Effluent Turbidity (NTU)							Entry Point Residual Disinfection (mg/L)							Comments*	
	0a-4a Time: 000a	4a-8a Time: 600a	8a-12 Time: 900 a	12-4p Time: 1200p	4p-8p Time: 600p	8p-12 Time: 2000p	Highest Turbidity Reading	Highest Reading Time	12-4a Time:	4a-8a Time: 600 a	8a-12 Time:	12-4p Time:	4p-8p Time: 2000 p	8p-12 Time:		Lowest Residual Reading
1	0.196	0.257	0.248	0.245	0.33	0.213	0.33	17:21:40		1.435			1.051		1.051	NTU <0.3 w/ 30 min
2	0.085	0.534	0.167	0.099	0.092	0.122	0.5335	7:42:48		1.078			1.367		1.078	NTU <0.3 w/ 30 min
3	0.236	0.197	0.163	0.148	0.128	0.136	0.2359	0:16:00		0.879			1.477		0.879	
4	0.171	0.079	0.136	0.203	0.16	0.133	0.2027	14:54:00		1.367			1.367		1.326	
5	0.129	PO	0.036	0.108	0.259	0.097	0.2592	17:30:00		1.037			1.745		1.037	
6	0.124	0.116	0.19	0.113	0.102	0.106	0.1903	8:18:00		1.442	1.264		1.381		1.264	
7	0.24	PO	0.098	0.097	0.111	0.129	0.2403	1:52:00		0.893			1.546		0.893	
8	0.119	PO	0.068	0.113	0.204	0.174	0.2039	17:16:00		PO	1.161		1.457		1.161	
9	PO	PO	0.096	0.088	0.276	0.057	0.276	17:21:00		0.557			1.052		0.557	
10	0.191	0.25	0.074	0.098	0.094	0.148	0.2503	4:54:00		1.175			1.525		1.175	
11	0.125	0.133	0.262	0.082	0.153	0.072	0.2624	8:15:00		1.604	1.202		1.694		1.202	
12	0.151	PO	0.051	0.136	0.133	0.172	0.1718	20:53:00		1.236			1.615		1.236	
13	0.302	0.085	0.13	0.134	0.1	0.054	0.3024	0:54:00	1.161	1.552			1.573		1.161	
14	0.066	PO	PO	0.107	0.196	0.061	0.1959	19:03:00		PO	1.257		1.614		1.257	
15	0.139	PO	PO	0.085	0.13	0.497	0.4971	20:09:14		PO	0.742		1.484		0.742	NTU <0.3 w/ 30 min
16	0.029	0.121	0.256	0.079	0.08	0.12	0.2555	9:57:00		1.442	1.209		1.443		1.209	
17	0.146	PO	0.119	0.087	PO	PO	0.146	PO 0:41:00		PO		1.127	PO	0.742	0.742	
18	0.055	0.103	0.1	0.101	0.197	PO	0.1971	17:39:00		1.621			1.34		1.34	
19	0.534	0.105	0.117	0.146	PO	PO	0.5335	2:26:37		1.628		0.886	PO		0.886	NTU <0.3 w/ 30 min
20	PO	0.232	0.044	0.085	0.077	0.07	0.2319	7:48:00		0.845			1.567		0.845	
21	0.079	0.11	0.109	0.106	0.148	0.127	0.1482	17:40:00		1.353			1.491		1.353	
22	0.143	0.189	0.375	0.133	0.119	0.117	0.3753	8:28:55		1.36	1.031		1.519		1.031	NTU <0.3 w/ 30 min
23	0.113	0.111	0.125	0.118	0.108	0.108	0.125	10:04:00		1.436			1.416	1.381	1.381	
24	PO	0.312	0.114	0.111	0.081	0.088	0.312	7:39:23		0.989			1.457		0.989	
25	0.087	0.109	0.118	0.123	0.283	PO	0.2832	19:17:00		1.443			1.161		1.161	
26	0.304	0.117	0.113	0.107	PO	PO	0.3044	2:03:00	0.914	1.56			PO		0.914	
27	PO	0.161	0.139	0.193	0.115	0.11	0.1927	15:57:00		1.622		0.873	1.632		0.873	
28	0.088	0.079	0.091	0.114	0.308	PO	0.3084	19:33:19		1.477			1.251		1.251	
29	PO	PO	PO	0.05	0.06	0.29	0.2896	20:23:00		0.955	1.195		PO		0.955	
30	0.059	0.033	0.044	0.248	0.407	0.038	0.4074	18:13:41		1.092			1.422		1.092	NTU <0.3 w/ 30 min
31	0.226	PO	PO	PO	PO	PO	0.2259	0:15:00	1.292	PO	PO	PO	PO	PO	1.292	

\*If the plant is offline input "PO" in the blank

\*If at ANY time the entry point residual chlorine falls below 0.2 mg/L, the system must

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Colorado Department of Public Health and Environment  
 Monthly Operating Report (MOR) - Data Sheet  
 Conventional and Direct Filtration

System Name: FOREST VIEW ACRES WD PWSID: CO0121250 State Assigned ID: 001 Monitoring Period: Aug2017  
 Required Number of Turbidity Readings Per Day: 6 Required Number of Chlorine Readings Per Day: 2

Day	Combined Filter Effluent Turbidity (NTU)								Entry Point Residual Disinfection (mg/L)								Comments*
	Grab Sampling				Highest Reading				Continuous Sampling				Grab Sampling				
	8a-8a Time: 000a	8a-8a Time: 600a	8a-12 Time: 000 a	12-4p Time: 1200p	4p-8p Time: 600p	8p-12 Time: 2000p	Highest Turbidity Reading	Highest Reading Time	12-4a Time:	4a-8a Time: 600 a	8a-12 Time:	12-4p Time:	4p-8p Time: 2000 p	8p-12 Time:	Lowest Residual Reading		
1	PO	PO	PO	PO	PO	PO								0.509	0.509		
2	0.018	0.129	0.234	0.02	0.143	0.019	0.2339	8:12:28		1.326			1.484		1.326		
3	0.055	PO	PO	0.243	0.061	PO	0.2427	15:13:47		PO	1.051		PO	1.285	1.051		
4	0.065	0.265	0.089	0.02	0.288	0.017	0.2884	17:04:31		1.332			1.072		1.072		
5	0.151	0.078	PO	0.027	0.028	0.267	0.2567	22:10:58		1.694			1.299		1.299		
6	PO	PO	PO	0.019	0.226	PO	0.2255	18:00:00		PO	0.934		PO	1.092	1.092		
7	0.03	PO	0.019	0.04	PO	0.598	0.596	23:06:50		0.934			1.188		0.934	NTU <0.3 w/ 30 min	
8	0.346	PO	PO	PO	PO	PO	0.3461	0:07:03	0.87	PO	PO	PO	PO	PO	0.87	NTU <0.3 w/ 30 min	
9	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO		
10	PO	PO	PO	PO	0.118	PO	PO	PO	PO			0.372	0.811		0.372		
11	0.066	PO	PO	0.169	0.393	0.061	0.3933	15:26:39		PO	0.946		1.381		0.946	NTU <0.3 w/ 30 min	
12	0.04	PO	0.222	0.136	0.123	PO	0.2219	8:45:00		0.852	1.058		PO		0.852		
13	0.145	0.269	0.071	0.121	0.246	PO	0.2688	7:50:24		0.852			PO	0.927	0.852		
14	0.078	0.309	PO	0.157	0.162	0.127	0.3088	7:55:44			1.195		1.546		1.195	NTU <0.3 w/ 30 min	
15	PO	0.267	0.186	0.182	0.165	0.171	0.2672	6:30:45		1.044			1.669		1.044		
16	0.115	0.426	PO	0.107	0.113	0.129	0.4262	7:61:23		1.456	1.202		1.477		1.202	NTU <0.3 w/ 30 min	
17	PO	PO	0.34	0.096	0.116	0.244	0.3397	8:28:50		PO	1.01		1.45		1.01	NTU <0.3 w/ 30 min	
18	0.06	0.132	0.219	0.089	PO	PO	0.2195	9:47:28		1.463			PO	1.113	1.113		
19	0.142	0.137	0.213	0.102	0.091	0.101	0.2127	11:08:00		1.518	1.223		1.436		1.223		
20	0.131	0.506	0.193	0.135	0.162	0.166	0.5059	4:57:02		PO	0.946		1.539		0.946	NTU <0.3 w/ 30 min	
21	0.228	PO	0.178	0.133	0.165	0.114	0.2279	3:47:07		1.326			1.573		1.326		
22	0.137	0.145	0.111	0.33	0.157	0.146	0.33	13:24:34		1.333			1.640		1.333	NTU <0.3 w/ 30 min	
23	0.161	PO	0.337	0.164	0.088	0.133	0.3369	8:13:45		PO			1.127	1.127	1.127	NTU <0.3 w/ 30 min	
24	0.083	0.157	0.099	0.087	0.119	0.217	0.2175	21:21:00		1.607			1.463	1.127	1.127		
25	PO	0.181	0.237	0.157	0.157	PO	0.2371	9:24:40		1.024			PO	1.422	1.024		
26	PO	0.285	0.128	0.09	0.143	0.113	0.2852	5:44:10		1.03			1.402		1.03		
27	0.439	0.115	0.077	0.1	0.143	0.153	0.4388	3:03:54	1.229	1.648			1.532		1.229	NTU <0.3 w/ 30 min	
28	0.127	0.168	0.101	0.301	0.15	0.139	0.3008	2:54:12	1.394	1.539			1.47		1.394	NTU <0.3 w/ 30 min	
29	0.123	PO	0.11	0.163	0.226	0.105	0.2259	5:15:02		1.133			1.512		1.133		
30	0.151	0.377	0.155	0.148	0.084	0.146	0.3773	7:20:50		1.161			1.573		1.161	NTU <0.3 w/ 30 min	
31	0.118	0.21	0.168	0.114	0.099	0.104	0.2103	4:40:00		1.23			1.573		1.23		

\*If the plant is offline input "PO" in the blank

\*If at ANY time the entry point residual chlorine falls below 0.2 mg/L, the system must

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Colorado Department of Public Health and Environment  
 Monthly Operating Report (MOR) - Data Sheet  
 Conventional and Direct Filtration

System Name: FOREST VIEW ACRES WD PWSID: CO0121250 State Assigned ID: 001 Monitoring Period: Jan2018  
 Required Number of Turbidity Readings Per Day: 6 Required Number of Chlorine Readings Per Day: 2

Day	Combined Filter Effluent Turbidity (NTU)								Entry Point Residual Disinfection (mg/L)								Comments*
	Grab Sampling				Highest Reading				Continuous Sampling				Grab Sampling				
	8a-8a Time: 000a	8a-8a Time: 600a	8a-12 Time: 000 a	12-4p Time: 1200p	4p-8p Time: 600p	8p-12 Time: 2000p	Highest Turbidity Reading	Highest Reading Time	12-4a Time:	4a-8a Time: 600 a	8a-12 Time:	12-4p Time:	4p-8p Time: 2000 p	8p-12 Time:	Lowest Residual Reading		
1	0.117	0.118	0.114	0.119	0.164	0.165	0.1654	22:11:25		1.236			1.126	1.07	1.07		
2	0.167	0.165	0.161	0.164	0.136	0.131	0.1674	2:57:28		0.988			1.029		0.988		
3	0.13	0.132	0.127	0.132	0.14	0.143	0.1426	22:16:17		1.022	1.008		1.07		1.008		
4	0.15	0.152	0.152	0.141	0.143	0.152	0.1522	7:18:17	1.036	1.07			1.462		1.036		
5	0.158	0.149	0.146	0.173	0.176	0.166	0.1768	16:25:39		1.448		1.4	1.407		1.4		
6	0.167	0.157	0.154	0.152	0.163	0.158	0.167	1:42:43		1.407		1.4	1.428		1.4		
7	0.158	0.151	0.149	0.147	0.15	0.147	0.1578	0:17:44		1.42		1.372	1.393		1.372		
8	0.145	0.146	0.144	0.153	0.152	0.151	0.1526	14:26:13		1.407			1.407	1.386	1.386		
9	0.148	0.147	0.151	0.142	0.144	0.149	0.1514	8:15:11		1.388		1.372	1.386		1.372		
10	0.147	0.146	0.147	0.143	0.171	0.169	0.1706	19:07:56		1.365			1.31	1.276	1.276		
11	0.161	0.153	0.15	0.146	0.143	0.143	0.1614	0:09:03		1.276			1.235	1.228	1.228		
12	0.139	0.136	0.136	0.135	0.165	0.137	0.155	16:02:56		1.18			1.152	1.118	1.118		
13	0.138	0.137	0.137	0.137	0.139	0.139	0.139	16:08:17		1.05			1.029	1.015	1.015		
14	0.139	0.139	0.137	0.143	0.139	0.142	0.143	15:13:25		0.988			1.188		0.988		
15	0.144	0.139	0.143	0.144	0.178	0.567	0.5672	20:34:57	1.043	1.084			1.194		1.043	NTU <0.3 w/ 30 min	
16	0.135	0.148	0.147	0.147	0.142	0.141	0.1478	6:22:07		1.173			1.077	1.07	1.07		
17	0.183	0.131	0.166	0.159	0.181	0.197	0.1975	21:15:46		1.009			0.995		0.995		
18	0.187	0.189	0.183	0.177	0.182	0.185	0.1891	5:17:34		1.084	1.063		1.097		1.063		
19	0.181	0.172	0.164	0.164	0.182	0.185	0.1847	20:26:16	1.104	1.112			1.049		1.104		
20	0.179	0.169	0.167	0.147	0.15	0.15	0.179	0:12:06		1.049	1.029		1.056		1.029		
21	0.142	0.142	0.139	0.139	0.134	0.139	0.1418	12:02:24 AM		1.257			1.057		1.057		
22	0.133	0.131	0.133	0.132	0.139	0.137	0.139	17:28:36		1.036			0.981		0.981		
23	0.137	0.135	0.136	0.138	0.137	0.138	0.1378	12:45:54		1.008			1.035	0.994	0.994		
24	0.137	0.138	0.135	0.135	0.138	0.137	0.1382	17:22:15	0.953	0.994			1.681		0.953		
25	0.138	PO	PO	PO	0.191	0.12	0.1911	17:57:43	1.653	PO	PO	PO	1.446		1.653		
26	0.132	0.141	0.145	0.148	0.158	0.149	0.1558	17:17:55		1.737			1.516	1.489	1.489		
27	0.15	0.145	0.136	0.134	0.133	0.128	0.1498	0:49:35		1.496			1.351	1.241	1.241		
28	0.129	0.127	0.145	0.125	0.127	0.127	0.1454	9:11:47		1.325			1.049	1.029	1.029		
29	0.127	0.128	0.129	0.128	0.132	0.129	0.1316	17:18:55		1.14			1.022	0.987	0.987		
30	0.128	0.13	0.128	0.13	0.131	0.132	0.1322	20:55:04		1.063		0.988	1.18		0.988		
31	0.133	0.133	0.133	0.133	0.133	0.133	0.1334	5:57:04		1.16			1.029	0.987	0.987		

\*If the plant is offline input "PO" in the blank

\*If at ANY time the entry point residual chlorine falls below 0.2 mg/L, the system must

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