RANDOLPH-HOLBROOK
JOINT WATER BOARD

Town of Holbrook
Office of Joint Superintendent
(781) 767-1800

50 North Franklin Street
Holbrook, MA 02343

Town of Randolph

July 15, 2021

Commonwealth of Massachusetts
Department of Environmental Protection
Southeast Regional Office
20 Riverside Drive
Lakeville, MA 02374

Monthly Reports Filtered System Forms
Forms G, G, I, J, TT
Chemical Addition Reports
DBPR Compliance Report
June, 2021 Randolph/Holbrook
Joint Water System, PWS #424001

Gentlemen:

Enclosed please find all reports as referenced above for the month of June, 2021.

As of this date, our lab, Analytical Balance has not sent the DOC/SUVA/TOC results. Another copy of G will be sent as soon as all Bacteria/HPC results are received.

Should there be any questions, please do not hesitate to call.

Sincerely,

William Cookerly

William Cookerly
Chief Plant Operator

Enclosures
Cc: Board of Health Holbrook
Board of Health Randolph
Brian Howard, Town Manager, Randolph
Ryan Allgrove, EPG

Massachusetts Department of Environmental Protection - Drinking Water Program

SWTR G

Compliance Determination for Filtered Systems - Monthly Report

I. PWS INFORMATION:

PWSID#: 4244001 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Town: RANDOLPH

Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period → Month: JUNE Year: 2021

II. TURBIDITY PERFORMANCE CRITERIA:

1.	Monthly Turbidity (95%) NTU Limit - The turbidity level of a system's filtered water must be less than or equal to the Monthly Turbidity NTU Limit in at least 95% of the measurements taken each month for the filtration technology used, otherwise SWTR TT Violation (Tier 2).	
180	= A	Total # of filtered water turbidity measurements for month (SWTR – Form F)
180	= B	Total # of filtered water turbidity measurements less than or equal to the specified limits for the filtration technology used. (SWTR – Form F)
100	= (B / A) x 100	The percentage of turbidity measurements meeting the Monthly Turbidity 95% NTU Limit.

2. Max Day NTU Limit - The turbidity level of a system's filtered water must at no time exceed the Max Day NTU Limit for the filtration technology used, otherwise SWTR TT Violation (Tier 2).

Record the date and turbidity value for any measurements exceeding the Max Day NTU. Check box ☑ if "None"

Date	Value	Date Reported to DEP		Date	Value	Date Reported to DEP

For each day the Max Day NTU limit is exceeded, the DEP must be notified by the end of the next business day. SWTR TT Violation (Tier 2). If DEP is not consulted within 24 hours then it is a SWTR TT (Tier 1) violation requiring public notification within 24 hours.

III. DISINFECTION PERFORMANCE CRITERIA:

1. Point-of-Entry Minimum Disinfectant Residual Criteria - Residual Disinfectant concentration cannot be < 0.2 mg/L for more than 4 hours. SWTR TT Violation (Tier 2).

Minimum Disinfectant Residual at Point-of-Entry to Distribution System

Day	Cl_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l
1	1.78	6	1.25	11	1.90	16	2.30	21	2.10	26	2.06	31	
2	1.93	7	1.78	12	1.90	17	2.35	22	1.93	27	1.92		
3	1.99	8	1.85	13	1.85	18	2.11	23	1.78	28	2.05		
4	2.02	9	1.80	14	1.78	19	2.10	24	1.91	29	2.01		
5	1.77	10	1.76	15	1.86	20	2.01	25	2.08	30	1.97		

Residual Measured
☑ Free Cl_2
☐ Total Cl_2
☐ Combined Cl_2

If at any time the residual falls below 0.2 mg/l in the water entering the distribution system, the supplier of water must notify the Department as soon as possible, but no later than by the end of the next business day. The supplier of water also must notify the Department by the end of the next business day whether or not the residual was restored to at least 0.2 mg/l within four hours.

Date(s) Residual < 0.2 mg/l	Duration of Low Level (hrs.)	Date Reported to DEP		Date(s) Residual < 0.2 mg/l	Duration of Low Level (hrs.)	Date Reported to DEP

2. Distribution System Disinfectant Residual Criteria - Residual Disinfectant concentration (V) cannot be undetectable in greater than 5% of samples in a month, for any two consecutive months. SWTR TT Violation (Tier 2). Chlorine residuals must be measured at the same time and location as total coliform *distribution routine & repeat* samples. If no residual is detected, an HPC sample must be collected and analyzed.

Total # of HPC samples taken during month: 66 # HPC sites > 500/mL: 66 # HPC sites ≤ 500/mL: 0

65	= a	# of sites where Cl_2 residual measurements were made, whether a residual was detected or not (should be the same # of sites reported on your monthly DBPR Cl_2 residual report)
0	= b	# of sites HPC samples were analyzed *instead* of Cl_2 residual measurements
0	= c	# of sites where no Cl_2 residual was detected and no HPC sample was analyzed
0	= d	# of sites where no Cl_2 residual was detected and HPC > 500 CFU/mL
0	= e	# of sites where no Cl_2 residual measurement was made and HPC > 500 CFU/mL

Water in the distribution system with a heterotrophic bacteria concentration (HPC) less than or equal to 500/mL, is deemed to have a detectable disinfectant residual for purposes of determining compliance with this requirement. When analyzed, report HPC results on your monthly DEP Bacteriological Report.

$V = \frac{(c + d + e)}{(a + b)} \times 100$ This Month % V = 0 Previous Month % V = 0 Is V > 5% for 2 months? ☐ Yes or ☒ No

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true.

PWS Authorized Signature: 7-15-2021 William Cooke Jr. Chief Operator

Massachusetts Department of Environmental Protection - Drinking Water Program

TURBIDITY DATA SHEET FOR FILTERED SYSTEMS

SWTR F

PWS INFORMATION:

PWSID#: 4244001 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Town: RANDOLPH

Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period → Month: JUNE Year: 2021

MONTHLY REPORTING:

Filtered Water Turbidity Measured: (check only one) ☒ Combined Filter Effluent ☐ Individual Filter Effluent[1] ☐ Clearwell ☐ Plant Effluent

Filtration Technology: ☒ Conventional ☐ Direct ☐ Alternative | Monthly Turbidity (95%) NTU Limit = 0.3 | Max Day Turbidity NTU Limit = 1

☐ Slow Sand ☐ Diatomaceous Earth | Monthly Turbidity (95%) NTU Limit = 1 | Max Day Turbidity NTU Limit = 5

Day	Max Filtered Water Turbidity Result[2] (NTU)	Number of Turbidity Measurements[3]	Number of Turbidity Measurements ≤ Monthly (95%) NTU Limit	Number of Turbidity Measurements > Max Day NTU Limit
1	.05	6	6	0
2	.05	6	6	0
3	.04	6	6	0
4	.06	6	6	0
5	.04	6	6	0
6	.05	6	6	0
7	.03	6	6	0
8	.05	6	6	0
9	.06	6	6	0
10	.06	6	6	0
11	.04	6	6	0
12	.04	6	6	0
13	.05	6	6	0
14	.06	6	6	0
15	.06	6	6	0
16	.04	6	6	0
17	.07	6	6	0
18	.05	6	6	0
19	.04	6	6	0
20	.04	6	6	0
21	.05	6	6	0
22	.05	6	6	0
23	.06	6	6	0
24	.04	6	6	0
25	.05	6	6	0
26	.05	6	6	0
27	.06	6	6	0
28	.06	6	6	0
29	.05	6	6	0
30	.05	6	6	0
31				
Totals		180 (A)	180 (B)	% Turbidity Meeting 95% Limit B/A x 100 % = X (Enter on SWTR - Form G)

1. May be used by systems serving less than 10,000 persons, subject to DEP approval.
2. Enter the Maximum Filtered Water Turbidity Result recorded each day, at the 4th hour or other approved interval.
3. Enter the Total # of Turbidity measurements taken for each day. Measurements must be taken at a minimum of 4-hour intervals (i.e. 6 readings per day). For continuous monitors count each 4-hour period as 1 measurement. Record the actual turbidity result at the specified interval of time. Do not average turbidity measurements. If DEP approved, 15-minute readings (i.e. 96 readings per day) may be submitted. Filtered turbidity data must be kept on file for DEP review.
4. Out of the # of turbidity measurements taken and recorded in the previous column, enter the number of turbidity measurements that were less than or equal to the Monthly (95%) NTU Limit for the filtration technology used.
5. If at any at time the filtered turbidity Max Day NTU Limit is exceeded, the DEP must be notified no later than the end of the next business day. For each exceedance, record the turbidity value(s) and date(s) on SWTR - Form G

I certify under penalties of law that I am the person authorized to submit this report and that the information contained herein is true, accurate and complete to the best of my knowledge.

PWS Authorized Signature: William Cockerly

Date: 7-1-2021 Title: Chief Plant Operator

Submit to your [illegible] DEP [illegible]

Massachusetts Department of Environmental Protection - Drinking Water Program

CT Determination for Filtered Systems

SWTR I

I. PWS INFORMATION:

PWSID#: 4244001 PWS Name: Randolph-Holbrook Joint Water PWS Town: Randolph

Treatment Plant Name: Randolph Water Plant Reporting Period → Month: JUNE Year: 2021

Disinfectant[1]: Chlorine Gas/Ester Eff. Sequence of Application: ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th ☐ 5 ☐ 6th

II. DAILY REPORTING: All measurements taken during peak hourly flow.

Day	Peak Hourly Flow[2] (gpm)	Disinfectant Concentration[3] C (mg/L)	Disinfectant Contact Time[4] T (min.)	CT calc (= C x T)	pH[5]	Water Temp[6] (°C)	CT[7] 99.9	Inactivation Ratio[8] (CT calc /CT 99.9)	Inactivation Ratio[9] < 1.0
1	2,400	1.78	50	89	6.05	20.4	11	8.1	☐ Yes
2	2,400	1.93	50	96.5	6.10	20.6	11	8.8	☐ Yes
3	2,400	1.99	50	99.5	5.80	20.6	11	9.1	☐ Yes
4	2,400	2.02	50	101	5.95	19.8	11	9.2	☐ Yes
5	2,400	1.77	50	88.5	6.10	19.6	11	8.1	☐ Yes
6	2,400	1.75	50	87.5	6.05	19.0	11	8.0	☐ Yes
7	2,400	1.78	50	89	5.90	19.4	11	8.1	☐ Yes
8	2,400	1.85	50	92.5	5.95	20.4	11	8.4	☐ Yes
9	2,400	1.80	50	90	6.00	20.9	11	8.2	☐ Yes
10	2,400	1.76	50	88	6.05	20.8	11	8.0	☐ Yes
11	2,400	1.90	50	95	6.10	20.9	11	8.6	☐ Yes
12	2,400	1.90	50	95	5.85	21.8	11	8.6	☐ Yes
13	2,400	1.85	50	92.5	6.00	21.0	11	8.4	☐ Yes
14	2,400	1.78	50	89	5.90	20.3	11	8.1	☐ Yes
15	2,400	1.86	50	93	5.95	20.9	11	8.5	☐ Yes
16	2,400	2.30	50	115	5.85	21.0	11	10.5	☐ Yes
17	2,400	2.35	50	117.5	6.10	21.0	11	10.7	☐ Yes
18	2,400	2.11	50	105.5	6.05	20.8	11	9.6	☐ Yes
19	2,400	2.10	50	105	6.00	20.8	11	9.6	☐ Yes
20	2,400	2.01	50	100.5	6.15	20.3	11	9.1	☐ Yes
21	2,400	2.10	50	105	5.95	19.7	11	9.6	☐ Yes
22	2,400	1.93	50	96.5	5.90	19.8	11	8.8	☐ Yes
23	2,400	1.78	50	89	5.95	19.8	11	8.1	☐ Yes
24	2,400	1.91	50	95.5	6.10	19.2	11	8.7	☐ Yes
25	2,400	2.08	50	104	6.05	19.2	11	9.5	☐ Yes
26	2,400	2.06	50	103	6.00	18.7	11	9.4	☐ Yes
27	2,400	1.92	50	96	6.15	19.3	11	8.7	☐ Yes
28	2,400	2.05	50	102.5	6.00	19.9	11	9.3	☐ Yes
29	2,400	2.01	50	100.5	5.85	20.4	11	9.1	☐ Yes
30	2,400	1.97	50	98.5	5.90	19.0	11	9.0	☐ Yes
31			50						☐ Yes

1. Use a separate form for each disinfectant/sampling point. Enter disinfectant and sequence position, e.g. "ozone/1st" or "ClO_2/3rd". If more than one disinfectant sampling point, you must also complete SWTR Form H and calculate the cumulative inactivation ratio SUM (CTcalc/CT99.9) to determine compliance.
2. Peak hourly flow means the highest pumpage *hour* during the day, not the absolute peak flow at any instant.
3. The residual disinfectant concentration(s) ("C") of the water before or at the first customer must be measured each day during peak hourly flow.
4. The disinfectant contact time(s) ("T") must be determined for each day during peak hourly flow. The time *T* used in calculating *CT*, is the time it takes the water, during peak hourly flow, to move between the point of disinfection application and the point at which the residual is measured.
5. If the system uses free chlorine, the pH of the disinfected water must be measured at least once per day at each chlorine residual disinfectant concentration sampling point during peak hourly flow.
6. The temperature of the disinfected water must be measured at least once per day at each residual disinfectant concentration sampling point during peak hourly flow.
7. Use Inactivation Tables at 310 CMR 22.20A Tables 1.1 – 1.6, 2.1 and/or 3.1
8. The inactivation ratio (CTcalc/CT99.9) is determined before or at the first customer during peak hourly flow and if the (CTcalc/CT99.9) is < 1.0, the 99.9% *Giardia lamblia* inactivation requirement has not been achieved.
9. More than one "Yes" response above may indicate a SWTR Treatment Technique violation (Tier 2).

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Signature: William Cooke IV

Date: 7-1-2021 Title: Chief Plant Operator

Massachusetts Department of Environmental Protection – Drinking Water Program

CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements

C-ADD

I. PWS Information – Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.

PWS Name[1]:	RANDOLPH-HOLBROOK JW	Town[1]:	RANDOLPH-Holbrook	PWSID[1]:	4244001		
Treatment Plant Name[2]:	RANDOLPH WATER PLANT	Treatment Plant ID#[2]:	4244001-02T	Reporting Period[3]:	JUNE (Month)	2021 (Year)	

II. Chemical & Operational Information

Chemical Name[4]:	POLYALUMINUM CHLORIDE	Purchased Strength[8]:	1.0	Target Range/min[12]:	> 14
Manufacturer[5]:	HOLLAND COMPANY	Purchased Density (lbs/gal)[9]:	10.3	Target Dose[13]:	≤ 18
Product Name[6]:	PCH-180	Dilution Factor or Mix Ratio[10]:	NA	Alarm Setting (low)[14]:	NA
Reason for Adding Chemical[7]:	COAGULATION	NSF Approved (Y/N)[11]:	Y	Alarm Setting (high)[14]:	NA
				Date of last anti-siphon valve inspection/replacement[15]:	NA

III. Daily Reporting

Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water[16] ☐Gallons ☑MG	Measured Chemical Used: Volume[17] (gal/day)	Measured Chemical Used: Weight[17] (lbs/day)	Calculated Chemical Used (lbs)[18]	Chemical Dosage[19] (mg/L)	Parameters Measured*, Results, Units and Method[20] - (G)rab or Continuous (A)nalyzer[21]: a. RAW PH DAILY AVG ☑G ☐A	b. ☐G ☐A	c. ☐G ☐A	O&M Notes/Comments[22]: PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
1	2.8	112		1,154	16	7.10			
2	2.8	111		1,143	16	7.15			
3	2.8	110		1,133	16	7.15			
4	2.8	101		1,040	15	7.10			
5	2.8	99		1,020	14	7.20			
6	2.9	91		937	13	7.05			
7	3.7	127		1,308	14	7.15			
8	3.3	131		1,349	16	7.10			
9	2.9	124		1,277	17	7.05			
10	2.7	111		1,143	12	7.10			
11	2.8	121		1,246	18	7.20			
12	2.8	116		1,195	17	7.10			
13	2.8	100		1,030	15	7.15			
14	2.0	93		958	19	7.05			
15	2.8	90		927	13	7.15			
16	2.8	94		968	14	7.15			
17	2.8	124		1,277	18	7.05			
18	2.8	120		1,236	18	7.10			
19	2.8	122		1,257	18	7.10			
20	2.8	120		1,236	18	7.00			
21	2.8	126		1,298	18	7.15			
22	3.2	114		1,174	15	7.05			
23	2.8	105		1,082	15	7.20			
24	2.8	105		1,082	15	7.20			
25	2.8	110		1,133	16	7.15			
26	2.8	125		1,288	18	7.05			
27	2.9	105		1,082	15	7.20			
28	2.8	99		1,020	14	7.15			
29	2.9	91		937	13	7.15			
30	3.0	135		1,391	18	7.05			
31									
Total									

Indicate total # of days the residual was off-target for the month (from Section II) **Monthly Target Summary**[23]:

*Describe result (daily average, min/max, instantaneous reading, grab, sample location (entry-point, before/after filters, tanks, etc.), and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)[20]:

a. Raw PH, Daily Average, Test Kit

b.

c.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Person - Signature & Date[24]: William Cooke 7-2-2021

Print Name: William Cooke Title: Chief Plant Operator

Massachusetts Department of Environmental Protection – Drinking Water Program

C-ADD

CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements

I. PWS Information – Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.

PWS Name[1]:	RANDOLPH-HOLBROOK JOINT WATER	Town[1]:	RANDOLPH-HOLBROOK	PWSID[1]:	4244001
Treatment Plant Name[2]:	RANDOLPH WATER PLANT	Treatment Plant ID#[2]:	4244001-017	Reporting Period[3]: Month	JUNE
				Year	2021

II. Chemical & Operational Information

Chemical Name[4]:	CHLORINE	Purchased Strength[8]:	1.0	Target Range/min[12]:	0.20
Manufacturer[5]:	AXIALL, LLC	Purchased Density (lbs/gal)[9]:	12.3	Target Dose[13]:	NA
Product Name[6]:	CHLORINE	Dilution Factor or Mix Ratio[10]:	NA	Alarm Setting (low)[14]:	1.0
Reason for Adding Chemical[7]:	DISINFECTANT	NSF Approved (Y/N)[11]:	Y	Alarm Setting (high)[14]:	3.0
		Date of last anti-siphon valve inspection/replacement[15]:			NA

III. Daily Reporting

Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water[16] ☐Gallons ☐MG	Measured Chemical Used: Volume[17] (gal/day)	Measured Chemical Used: Weight[17] (lbs/day)	Calculated Chemical Used (lbs)[18]	Chemical Dosage[19] (mg/L)	Parameters Measured*, Results, Units and Method[20] - (G)rab or Continuous (A)nalyzer[21]: a. FREE Cl2 FINISHED DAILY AVG ☒G ☐A	b. FREE Cl2 FINISHED DAILY MIN. ☑G ☐A	c. ☐G ☐A	O&M Notes/Comments[22]
1	2.8		84		3.6	1.95	1.78		
2	2.8		81		3.5	2.04	1.93		
3	2.8		85		3.6	2.09	1.99		
4	2.8		80		3.4	2.08	2.02		
5	2.8		82		3.5	1.91	1.77		
6	2.9		81		3.3	1.87	1.75		
7	3.7		85		2.8	1.94	1.78		
8	3.3		85		3.1	2.13	1.85		
9	2.9		82		3.4	1.96	1.80		
10	2.7		83		3.7	1.96	1.76		
11	2.8		92		3.9	2.03	1.90		
12	2.8		87		3.7	2.05	1.90		
13	2.8		88		3.8	2.05	1.85		
14	2.0		87		5.2	2.36	1.86		
15	2.8		97		4.2	2.09	1.78		
16	2.8		61		2.6	2.45	2.30		MAINTENANCE ADJUSTMENTS ON CHLORINE SCALES TODAY, TOTAL OFF.
17	2.8		103		4.4	2.56	2.35		
18	2.8		99		4.2	2.46	2.11		
19	2.8		88		3.8	2.18	2.10		
20	2.8		90		3.9	2.17	2.01		
21	2.8		101		4.3	2.22	2.10		
22	3.2		100		3.8	2.15	1.93		
23	2.8		96		4.1	2.11	1.78		
24	2.8		94		4.0	2.13	1.91		
25	2.8		101		4.3	2.17	2.08		
26	2.8		91		3.9	2.18	2.06		
27	2.9		93		3.8	2.13	1.92		
28	2.8		97		4.2	2.19	2.05		
29	2.9		88		3.6	2.14	2.01		
30	3.0		93		3.7	2.08	1.97		
31									
Total					Indicate total # of days the residual was off-target for the month (from Section II) **Monthly Target Summary**[23]:				

*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)[20]:

a. Daily Average Free Chlorine, Finished Water, Grab Sample, Test Kit

b. Daily Minimum Free Chlorine, Finished Water, Grab Sample, Test Kit

c.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Person - Signature & Date[24]: William Cockerty 7-9-2021

Print Name: William Cockerty Title: Chief Plant Operator

Massachusetts Department of Environmental Protection – Drinking Water Program **C-ADD**

CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements

I. PWS Information – Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.

PWS Name[1]:	RANDOLPH-HOLBROOK JW	Town[1]:	RANDOLPH-HOLBROOK	PWSID[1]:	4240001
Treatment Plant Name[2]:	RANDOLPH WATER PLANT	Treatment Plant ID#[2]:	4244001-01T	Reporting Period[3]:	JUNE (Month) 2021 (Year)

II. Chemical & Operational Information

Chemical Name[4]:	CALCIUM HYDROXIDE	Purchased Strength[8]:	0.85	Target Range/min[12]:	NA
Manufacturer[5]:	CARMEUSE LIME & STONE	Purchased Density (lbs/gal)[9]:	18.7	Target Dose[13]:	NA
Product Name[6]:	HYDRATED LIME	Dilution Factor or Mix Ratio[10]:	NA	Alarm Setting (low)[14]:	NA
Reason for Adding Chemical[7]:	Ph ADJUSTMENT	NSF Approved (Y/N)[11]:	Y	Alarm Setting (high)[14]:	NA
		Date of last anti-siphon valve inspection/replacement[15]:			NA

III. Daily Reporting

Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water[16] ☐Gallons ☑MG	Measured Chemical Used: Volume[17] (gal/day)	Measured Chemical Used: Weight[17] (lbs/day)	Calculated Chemical Used (lbs)[18]	Chemical Dosage[19] (mg/L)	Parameters Measured*, Results, Units and Method[20] - (G)rab or Continuous (A)nalyzer[21]: a. FINISHED Ph ☑G ☐A	b. ☐G ☐A	c. ☐G ☐A	O&M Notes/Comments[22]: PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
1	2.7		100		4.4	7.05			
2	2.8		100		4.3	7.10			
3	2.7		100		4.4	7.00			
4	2.7		100		4.4	7.05			
5	2.8		100		4.3	7.15			
6	3.2		100		3.8	7.10			
7	3.2		100		3.8	7.10			
8	3.2		100		3.8	7.00			
9	3.0		100		4.1	7.10			
10	2.9		100		4.1	7.05			
11	2.9		100		4.1	7.05			
12	2.7		100		4.4	7.10			
13	2.8		100		4.3	7.00			
14	2.0		100		6.0	7.10			
15	2.7		100		4.4	7.10			
16	2.7		100		4.4	7.05			
17	2.8		100		4.3	6.85			
18	2.9		100		4.1	7.10			
19	2.9		100		4.1	6.90			
20	2.9		100		4.1	7.10			
21	3.0		100		4.0	7.05			
22	3.0		100		4.0	7.00			
23	2.8		—		—	6.50			LIME FEEDER/LINE
24	2.8		—		—	6.45			CLOGGED - CEMENTED
25	2.7		—		—	6.50			SOLID. ORDERING NEW
26	2.7		—		—	6.40			ONE FROM GRAINGER (BC)
27	2.9		—		—	6.45			
28	3.0		—		—	6.45			
29	3.1		—		—	6.50			
30	3.0		—		—	6.50			
31									
Total					Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary[23]:				

*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)[20]:

a. Finished Water Ph, Daily Average, Test Kit

b.

c.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Person - Signature & Date[24]: 7-2-2021

Print Name: William Cokely Title: Plant Operator

Massachusetts Department of Environmental Protection – Drinking Water Program **C-ADD**

CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements

I. PWS Information – Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.

PWS Name[1]:	RANDOLPH-HOLBROOK JW	Town[1]:	RANDOLPH-HOLBROOK	PWSID[1]:	4244001
Treatment Plant Name[2]:	RANDOLPH WATER PLANT	Treatment Plant ID#[2]:	4244001-011	Reporting Period[3]:	JUNE (Month) 2021 (Year)

II. Chemical & Operational Information

Chemical Name[4]:	SODIUM BISULFATE	Purchased Strength[8]:	10-15	Target Range/min[12]:	NA
Manufacturer[5]:	CARUS CORPORATION	Purchased Density (lbs/gal)[9]:	12.03	Target Dose[13]:	NA
Product Name[6]:	CARUS 3350	Dilution Factor or Mix Ratio[10]:	0.33	Alarm Setting (low)[14]:	NA
Reason for Adding Chemical[7]:	CORROSION INHIBITOR	NSF Approved (Y/N)[11]:	Y	Alarm Setting (high)[14]:	NA
		Date of last anti-siphon valve inspection/replacement[15]:			NA

III. Daily Reporting

Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water[16] ☐Gallons ☒MG	Measured Chemical Used: Volume[17] (gal/day)	Measured Chemical Used: Weight[17] (lbs/day)	Calculated Chemical Used (lbs)[18]	Chemical Dosage[19] (mg/L)	Parameters Measured*, Results, Units and Method[20] - (G)rab or Continuous (A)nalyzer[21]: a. FINISHED PH ☒G ☐A	b. ☐G ☐A	c. ☐G ☐A	O&M Notes/Comments[22]: PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
1	2.7		50		2.2	7.05			
2	2.8		50		2.1	7.10			
3	2.7		50		2.2	7.00			
4	2.7		50		2.2	7.05			
5	2.8		50		2.1	7.15			
6	3.2		50		1.9	7.10			
7	3.2		50		1.9	7.10			
8	3.2		50		1.9	7.00			
9	3.0		50		2.1	7.10			
10	2.9		50		2.1	7.05			
11	2.9		50		2.1	7.05			
12	2.7		50		2.1	7.10			
13	2.8		50		2.1	7.00			
14	2.0		50		3.0	7.10			
15	2.7		50		2.2	7.10			
16	2.7		50		2.2	7.05			
17	2.8		50		2.1	6.95			
18	2.9		50		2.1	7.10			
19	2.9		50		2.1	6.90			
20	2.9		50		2.1	7.10			
21	3.0		50		2.1	7.05			
22	3.0		50		2.0	7.00			
23	2.8		50		2.1	7.00			
24	2.8		50		2.1	6.90			
25	2.7		50		2.2	6.95			
26	2.7		50		2.2	7.05			
27	2.9		50		2.1	7.05			
28	3.0		50		2.0	7.00			
29	3.1		50		1.9	7.05			
30	3.0		50		2.0	7.00			
31									
Total				Indicate total # of days the residual was off-target for the month (from Section II) **Monthly Target Summary**[23]:					

*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)[20]:

a. Finished Water, Daily Average, Test Kit

b.

c.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Person - Signature & Date[24]: William Corkery 7-2-2021

Print Name: William Corkery Title: Chief Plant Operator

Massachusetts Department of Environmental Protection - Drinking Water Program
TURBIDITY - INDIVIDUAL FILTER MONITORING
For Conventional or Direct Filtered Systems

SWTR
J

III. DAILY REPORTING[1]:

Day	Filter Number 1		Filter Number 2		Filter Number 3		Filter Number 4	
	[3]Max Day NTU	[4]Max after 4 Hours NTU	[3]Max Day NTU	[4]Max after 4 Hours NTU	[3]Max Day NTU	[4]Max after 4 Hours NTU	[3]Max Day NTU	[4]Max after 4 Hours NTU
1	0.024109	0.026904	0.022907	0.027618	0.026403	0.031380	0.035339	0.037677
2	0.025311	0.031714	0.027300		0.030581		0.039787	
3	0.031884		0.026357	0.031535	0.029676	0.032855	0.080403	0.038447
4	0.028522	0.031328	0.026557	0.032391	0.031367	0.035216	0.038696	0.042483
5	0.031606	0.041429	0.035915		0.037812		0.045709	
6	0.041768		0.074371	0.040468	0.037696	0.042108	0.044486	0.049081
7	0.039121	0.039389	0.033435	0.045384	0.043460	0.051217	0.051656	0.048787
8	0.032410	0.036326	0.046454		0.050850		0.062116	
9	0.037142		0.030664	0.035445	0.035328	0.037840	0.040946	0.045001
10	0.038142	0.040240	0.034815	0.040996	0.037147	0.041952	0.043030	0.050074
11	0.037274	0.035600	0.040237		0.042275		0.051343	
12	0.036223		0.031291	0.035224	0.033127	0.037412	0.039301	0.044301
13	0.032974	0.037889	0.031683	0.039972	0.036447	0.043173	0.047234	0.053142
14	0.036781	0.042078	0.039407		0.043423		0.054058	
15	0.043150		0.036615	0.041160	0.041429	0.042347	0.046221	0.050155
16	0.035483	0.040349	0.033419	0.042220	0.079731	0.046993	0.049321	0.054770
17	0.032936	0.033866	0.041478		0.045458		0.055563	
18	0.034150		0.029834	0.032757	0.059120	0.034567	0.060467	0.043905
19	0.047608	0.037426	0.054228	0.038012	0.063057	0.041924	0.046321	0.051861
20	0.034461	0.034739	0.037654		0.041697		0.052746	
21	0.035522		0.028789	0.033661	0.032045	0.035112	0.062034	0.047756
22	0.038906	0.036326	0.034636	0.039760	0.033717	0.044038	0.048017	0.055962
23	0.060581	0.046797	0.040866		0.044083		0.057578	
24	0.046927		0.058831	0.042437	0.044101	0.044822	0.043944	0.046914
25	0.052007	0.039674	0.064004	0.035368	0.045647	0.039851	0.074554	0.046123
26	0.062667	0.045406	0.034775		0.040026		0.046123	
27	0.045707		0.034560	0.041526	0.066159	0.040036	0.065947	0.048845
28	0.058785	0.048661	0.037778	0.050716	0.050645	0.058182	0.085768	0.062234
29	0.054875	0.059488	0.050196		0.057159		0.064811	
30	0.060692		0.046672	0.054861	0.053412	0.054296	0.061329	0.041303
31								

1. Systems shall conduct continuous turbidity monitoring of the filter effluent for each individual filter at the filtration facility and record turbidity measurements every 15-minutes. Record the actual turbidity result at the specified interval of time. Do not average turbidity measurements. Individual filter turbidity records must be retained for 3 years and kept on file for MassDEP review.
2. Systems serving less than 10,000: If the treatment system has only one or two filters, the supplier may conduct continuous monitoring of the CFE turbidity in lieu of individual filter effluent (IFE) turbidity monitoring. If there are two filters, a continuous turbidity monitor can be installed on the combined filter effluent. If a CFE problem appears, follow-up action must then be completed on both filters.
3. Enter the highest daily 15-minute interval turbidity measurement recorded for the filter specified.
4. Enter the highest daily 15-minute interval turbidity measurement recorded at the end of the first four hours of continuous filter operation after the filter has been backwashed or otherwise taken offline.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Signature: William Cooperly

Date: 7/14/2021 **Title:** Chief Plant Operator

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

Massachusetts Department of Environmental Protection - Drinking Water Program
TURBIDITY - INDIVIDUAL FILTER MONITORING
For Conventional or Direct Filtered Systems

SWTR
J

III. DAILY REPORTING[1]:

Day	Filter Number 5		Filter Number 6		Filter Number 7		Filter Number 8	
	[3]Max Day NTU	[4]Max after 4 Hours NTU	[3]Max Day NTU	[4]Max after 4 Hours NTU	[3]Max Day NTU	[4]Max after 4 Hours NTU	[3]Max Day NTU	[4]Max after 4 Hours NTU
1	0.028552		0.039429		0.082752	0.031272	0.025764	0.029751
2	0.062596	0.030187	0.031227	0.031073	0.029253	0.032110	0.075182	0.031425
3	0.027455	0.031623	0.030757	0.036076	0.032198	0.038067	0.033366	
4	0.033111		0.037585		0.081813		0.078305	0.035196
5	0.030910	0.035100	0.035204	0.038845	0.034132	0.039440	0.087428	0.040204
6	0.035554	0.047366	0.048988	0.053159	0.043873	0.052884	0.043350	
7	0.047112		0.053169		0.084711		0.044012	0.047471
8	0.040719	0.035032	0.035056	0.037431	0.034454	0.040436	0.033303	0.038316
9	0.114086	0.040990	0.035625	0.043278	0.038249	0.044965	0.038503	
10	0.041051		0.044177		0.047203		0.037254	0.042192
11	0.041121	0.045194	0.041098	0.048293	0.081381	0.043504	0.059038	0.041002
12	0.031636	0.037199	0.035128	0.040585	0.036564	0.043531	0.038687	
13	0.040132		0.043612		0.045518		0.036147	0.042336
14	0.091075	0.044435	0.041893	0.046219	0.041601	0.048197	0.038902	0.047026
15	0.036732	0.043277	0.040380	0.045701	0.042135	0.048762	0.046246	
16	0.044888		0.046795		0.071449		0.039858	0.045176
17	0.079949	0.046437	0.067398	0.048052	0.068931	0.037263	0.034605	0.036846
18	0.048038	0.036415	0.035467	0.042664	0.071968	0.044380	0.038346	
19	0.037882		0.042398		0.050121		0.062807	0.042356
20	0.064110	0.042917	0.066715	0.045762	0.042296	0.050117	0.041265	0.039319
21	0.050920	0.041830	0.062007	0.045236	0.074425	0.048960	0.039034	
22	0.040991		0.046197		0.066481		0.073019	0.045299
23	0.078526	0.044555	0.071498	0.044279	0.072936	0.045936	0.064428	0.046704
24	0.061397	0.046754	0.042532	0.056493	0.050330	0.058714	0.076585	
25	0.051629		0.055254		0.062038		0.051884	0.055226
26	0.060716	0.040587	0.046822	0.041045	0.064820	0.045970	0.077855	0.047424
27	0.069912	0.047041	0.044242	0.052908	0.078739	0.057751	0.051448	
28	0.049960		0.054165		0.068549		0.053569	0.057847
29	0.047666	0.057490	0.097222	0.056146	0.088045	0.065474	0.078443	0.068089
30	0.085647	0.044783	0.035918	0.044221	0.043471	0.065297	0.064862	
31								

1. Systems shall conduct continuous turbidity monitoring of the filter effluent for each individual filter at the filtration facility and record turbidity measurements every 15-minutes. Record the actual turbidity result at the specified interval of time. Do not average turbidity measurements. Individual filter turbidity records must be retained for 3 years and kept on file for MassDEP review.
2. Systems serving less than 10,000: If the treatment system has only one or two filters, the supplier may conduct continuous monitoring of the CFE turbidity in lieu of individual filter effluent (IFE) turbidity monitoring. If there are two filters, a continuous turbidity monitor can be installed on the combined filter effluent. If a CFE problem appears, follow-up action must then be completed on both filters.
3. Enter the highest daily 15-minute interval turbidity measurement recorded for the filter specified.
4. Enter the highest daily 15-minute interval turbidity measurement recorded at the end of the first four hours of continuous filter operation after the filter has been backwashed or otherwise taken offline.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

PWS Authorized Signature: William Cooke

Date: 7/14/2021 **Title:** Chief Plant Operator

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

Massachusetts Department of Environmental Protection - Drinking Water Program

Cl

CHLORINE/CHLORAMINES - MONTHLY REPORT

I. PWS INFORMATION:

PWS ID #: 4133000 PWS Name: TOWN OF HOLBROOK City/Town: HOLBROOK Class: COM ☒ NTNC ☐ TNC ☐

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured: ☒ Free Chlorine ☐ Total Chlorine ☐ Combined Chlorine Analytical Method: SM 4500-Cl: ☐D ☐E ☐F ☐G ☐H ☐I ASTM D1253-86 ☐

Notes:

DEP APPROVED SAMPLE SITE INFORMATION[1]			CHLORINE RESULT[2] (mg/L)	COLLECTION AND ANALYSIS[3]:		COLLECTED AND ANALYZED BY:
DEP Sample Type[1,4]	DEP Location Code #[1]	DEP Approved SAMPLE LOCATION[1]		DATE	TIME	
RS	001	TOWN HALL	.94	6/7/2021	07:08	T. Duggan
RS	004	COTTAGE VARIETY	1.04	6/7/2021	08:02	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	.02	6/7/2021	08:38	T. Duggan
RS	006	COMMUNITY CENTER	.01	6/7/2021	07:31	T. Duggan
RS	001	TOWN HALL	.97	6/14/2021	06:20	T. Duggan
RS	004	COTTAGE VARIETY	1.15	6/14/2021	07:15	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	.03	6/14/2021	08:00	T. Duggan
RS	006	COMMUNITY CENTER	.24	6/14/2021	06:52	T. Duggan
RS	001	TOWN HALL	.45	6/21/2021	07:08	B. Baxter
RS	004	COTTAGE VARIETY	.42	6/21/2021	08:10	B. Baxter
RS	008E	STEWARTS POWER EQUIPMENT	.01	6/21/2021	09:00	B. Baxter
RS	006	COMMUNITY CENTER	.01	6/21/2021	07:45	B. Baxter
RS	001	TOWN HALL	1.06	6/28/2021	06:15	T. Duggan
RS	004	COTTAGE VARIETY	1.22	6/28/2021	07:10	T. Duggan
RS	OO8E	STEWARTS POWER EQUIPMENT	.03	6/28/2021	06:40	T. Duggan
RS	006	COMMUNITY CENTER	.02	6/28/2021	06:40	T. Duggan

[1] DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.
[2] SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.
[3] Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).
[4] Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).
[5] All **DISTRIBUTION** samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING: **Total # of Samples Collected for Month[5]:** 65 **Average Chlorine Result of All Samples For Month[5] (mg/L):** 1.03

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature and Date: William Cooke 7-9-2021

DEP Review Status:	☐ Accepted ☐ Disapproved	Review Comments:	

Massachusetts Department of Environmental Protection - Drinking Water Program
CHLORINE/CHLORAMINES - MONTHLY REPORT

Cl

I. PWS INFORMATION:

PWS ID #: 4244000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM ☒ NTNC ☐ TNC ☐

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured: ☒ Free Chlorine ☐ Total Chlorine ☐ Combined Chlorine Analytical Method: SM 4500-Cl: ☐D ☐E ☐F ☒G ☐H ☐I ASTM D1253-86 ☐

Notes: Weekly samples taken in the distribution system

DEP APPROVED SAMPLE SITE INFORMATION[1]			CHLORINE RESULT[2] (mg/L)	COLLECTION AND ANALYSIS[3]:		COLLECTED AND ANALYZED BY:
DEP Sample Type[1,4]	DEP Location Code #[1]	DEP Approved SAMPLE LOCATION[1]		DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.46	6-2-21	10:30AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.42		8:00AM	
RS	005	MARTIN E. YOUNG SCHOOL- COURTNEY DRIVE	1.07		9:00AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.86		11:30AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.55		11:00AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.22		10:00AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	1.09		8:30AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	NO ACCESS	DUE TO	COVID-19	
	014RE	ADD AVID - 317 NORTH MAIN ST	1.38	"	7:30AM	
RS	016	OAK GROVE STANDPIPE	.78		9:30AM	
RS	017	SOUTH MAIN STREET STANDPIPE	.68	↓	9:15AM	↓

[1] DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.
[2] SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.
[3] Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).
[4] Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).
[5] All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING: Total # of Samples Collected for Month[6]: 65 Average Chlorine Result of All Samples For Month[6] (mg/L): 1.03

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature and Date: William Corkery 7-9-2021

DEP Review Status:	☐ Accepted ☐ Disapproved	Review Comments:	

Massachusetts Department of Environmental Protection - Drinking Water Program

CHLORINE/CHLORAMINES - MONTHLY REPORT

Cl

I. PWS INFORMATION:

PWS ID #: 4244000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM ☒ NTNC ☐ TNC ☐

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured: ☒ Free Chlorine ☐ Total Chlorine ☐ Combined Chlorine Analytical Method: SM 4500-Cl: ☐D ☐E ☐F ☒G ☐H ☐I ASTM D1253-86 ☐

Notes: Weekly samples taken in the distribution system

DEP APPROVED SAMPLE SITE INFORMATION[1]			CHLORINE RESULT[2] (mg/L)	COLLECTION AND ANALYSIS[3]:		COLLECTED AND ANALYZED BY:
DEP Sample Type[1,4]	DEP Location Code #[1]	DEP Approved SAMPLE LOCATION[1]		DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.25	6-7-21	9:30 AM	A. PIERCE-LOWE
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.20		8:15AM	
RS	005	MARTIN E. YOUNG SCHOOL- COURTNEY DRIVE	.90		8:45AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.61		11:15AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.36		10:45AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.00		10:15AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	.52		7:15 AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	NO ACCESS	DUE TO	COVID-19	
	014AE	AXP AUTO - 317 NORTH MAIN ST.	1.27	"	7:45AM	
RS	016	OAK GROVE STANDPIPE	.85		9:45AM	
RS	017	SOUTH MAIN STREET STANDPIPE	.83		9:15AM	

[1] DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.
[2] SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.
[3] Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).
[4] Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).
[5] All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING:

Total # of Samples Collected for Month[5]: 65 Average Chlorine Result of All Samples For Month[5] (mg/L): 1.03

In accordance with 310 CMR 22.16(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature and Date: William Cooley 7-9-2021

DEP Review Status:	☐ Accepted ☐ Disapproved	Review Comments:	

Massachusetts Department of Environmental Protection - Drinking Water Program
CHLORINE/CHLORAMINES - MONTHLY REPORT

Cl

I. PWS INFORMATION:

PWS ID #: 4244000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM ☒ NTNC ☐ TNC ☐

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured: ☒ Free Chlorine ☐ Total Chlorine ☐ Combined Chlorine Analytical Method: SM 4500-Cl: ☐D ☐E ☐F ☒G ☐H ☐I ASTM D1253-86 ☐

Notes: Weekly samples taken in the distribution system

DEP APPROVED SAMPLE SITE INFORMATION[1]			CHLORINE RESULT[2] (mg/L)	COLLECTION AND ANALYSIS[3]:		COLLECTED AND ANALYZED BY:
DEP Sample Type[1,4]	DEP Location Code #[1]	DEP Approved SAMPLE LOCATION[1]		DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.42	6-14-21	10:00AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.27		8:00 AM	
RS	005	MARTIN E. YOUNG SCHOOL- COURTNEY DRIVE	1.00		9:00 AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.78		11:00 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.47		10:30AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.13		9:30AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	.71		8:30AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	NO ACCESS	DUE TO	COVID-19	
	014AE	APR AUTO - 317 NORTH MAIN Street	1.50	"	7:30AM	
RS		OAK GROVE STANDPIPE	.73		9:45AM	
RS		SOUTH MAIN STREET STANDPIPE	.55	↓	9:15AM	↓

[1] DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.
[2] SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.
[3] Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).
[4] Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).
[5] All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING: Total # of Samples Collected for Month[6]: 65 Average Chlorine Result of All Samples For Month[6] (mg/L): 1.03

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature and Date: William Cotter 7-9-2021

DEP Review Status: ☐ Accepted ☐ Disapproved Review Comments:

Massachusetts Department of Environmental Protection - Drinking Water Program
CHLORINE/CHLORAMINES - MONTHLY REPORT

Cl

I. PWS INFORMATION:

PWS ID #: 4244000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM ☒ NTNC ☐ TNC ☐

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured: ☒ Free Chlorine ☐ Total Chlorine ☐ Combined Chlorine Analytical Method: SM 4500-Cl: ☐D ☐E ☐F ☒G ☐H ☐I ASTM D1253-86 ☐

Notes: Weekly samples taken in the distribution system

DEP APPROVED SAMPLE SITE INFORMATION[1]			CHLORINE RESULT[2] (mg/L)	COLLECTION AND ANALYSIS[3]:		COLLECTED AND ANALYZED BY:
DEP Sample Type[1,4]	DEP Location Code #[1]	DEP Approved SAMPLE LOCATION[1]		DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.61	6-21-21	10:15AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.53		8:15AM	
RS	005	MARTIN E. YOUNG SCHOOL- COURTNEY DRIVE	1.09		9:15AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.96		11:15AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.63		10:45AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.23		9:45AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	.63		8:45AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	NO ACCESS	DUE	TO COVID-19	
	014AE	AXP AUTO-317 NORTH MAIN ST.	1.66	"	7:45AM	
RS	016	OAK GROVE STANDPIPE	.91		9:30AM	
RS	017	SOUTH MAIN STREET STANDPIPE	.98	↓	9:00AM	↓

[1] DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.
[2] SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.
[3] Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).
[4] Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).
[5] All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING: Total # of Samples Collected for Month[6]: 65 Average Chlorine Result of All Samples For Month[6] (mg/L): 1.03

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature and Date: William Corkery 7-9-2021

DEP Review Status:	☐ Accepted ☐ Disapproved	Review Comments:	

Massachusetts Department of Environmental Protection - Drinking Water Program

CHLORINE/CHLORAMINES - MONTHLY REPORT

Cl

I. PWS INFORMATION:

PWS ID #: 4244000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM ☒ NTNC ☐ TNC ☐

II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured: ☒ Free Chlorine ☐ Total Chlorine ☐ Combined Chlorine Analytical Method: SM 4500-Cl: ☐D ☐E ☐F ☒G ☐H ☐I ASTM D1253-86 ☐

Notes: Weekly samples taken in the distribution system

DEP APPROVED SAMPLE SITE INFORMATION[1]			CHLORINE RESULT[2] (mg/L)	COLLECTION AND ANALYSIS[3]:		COLLECTED AND ANALYZED BY:
DEP Sample Type[1,4]	DEP Location Code #[1]	DEP Approved SAMPLE LOCATION[1]		DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.39	6-28-21	10:00AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.37		8:30AM	
RS	005	MARTIN E. YOUNG SCHOOL- COURTNEY DRIVE	.96		9:00AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.91		11:00AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.58		10:30AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.24		9:30AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	.50		8:00AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	NO ACCESS	DUE TO	COVID-19	
	014AE	AXP AUTO-317 NORTH MAIN Street	1.70	"	7:30AM	
RS	016	OAK GROVE STANDPIPE				
RS	017	SOUTH MAIN STREET STANDPIPE	.69		8:45AM	

[1] DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.
[2] SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.
[3] Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).
[4] Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).
[5] All **DISTRIBUTION** samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING: Total # of Samples Collected for Month[5]: 65 Average Chlorine Result of All Samples For Month[5] (mg/L): 1.03

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature and Date: William Cooksley 7-9-2021

DEP Review Status:	☐ Accepted ☐ Disapproved	Review Comments:	

Massachusetts Department of Environmental Protection - Drinking Water Program

Disinfection Byproducts Rule Compliance Report - DBPR

I. PWS INFORMATION - Please refer to your DBPR Monitoring Plan to help complete this form

PWS ID #: 4244001 City / Town: RANDOLPH

PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Class: COM [X] NTNC [ ] TNC [ ]

Monitoring Period (YEAR): 2021 Monitoring Period (QUARTER): [ ] Q1 (Jan-Mar) [X] Q2 (Apr-Jun) [ ] Q3 (Jul-Sep) [ ] Q4 (Oct- Dec)

II. FOR SYSTEMS USING CHLORINATION

A. Trihalomethanes (TTHM)

Total Number of TTHM Samples:		Quarterly Average:	µg/L
Was the Running Annual Average MCL (80 µg/L) exceeded? Yes [ ] No [ ]		Running Annual Average:	µg/L

B. Haloacetic Acids (HAA5)

Total Number of HAA5 Samples:		Quarterly Average:	µg/L
Was the Running Annual Average MCL (60 µg/L) exceeded? Yes [ ] No [ ]		Running Annual Average:	µg/L

C. Chlorine/Chloramines

Total Number of Samples:	Month 1: 66	APRIL	Monthly Averages: (report all 3 months per quarter)	1.08 mg/L	Quarterly Average:	1.03 mg/L
	Month 2: 66	MAY		0.98 mg/L		
	Month 3: 65	JUNE		1.03 mg/L		
Was the Running Annual Average MRDL (4.0 mg/L) exceeded? Yes [ ] No [X]					Running Annual Average:	1.14 mg/L

D. Total Organic Carbon – raw (TOC) *(Required for SW or GWUDI systems >499 seeking or approved to reduce THM/HAA5 monitoring.)*

Plant Name: *(Attach additional sheet(s) to report more than 1 plant)*

Total Number of Samples:	Month 1:		Monthly Averages: (report all 3 months per quarter)	mg/L	Quarterly Average:	mg/L
	Month 2:			mg/L		
	Month 3:			mg/L		
Was the (4.0 mg/L) threshold exceeded? Yes [ ] No [ ]					Running Annual Average:	mg/L

III. FOR SYSTEMS USING OZONATION *(attach additional sheet(s) to report more than 1 plant)*

E. Bromate (treated)

Plant Name:

Total Number of Samples:	Month 1:		Monthly Averages: (report all 3 months per quarter)	mg/L	Quarterly Average:	mg/L
	Month 2:			mg/L		
	Month 3:			mg/L		
Was the Running Annual Average MCL (0.010 ug/l) exceeded? Yes [ ] No [ ]					Running Annual Average:	mg/L

F. Bromide (raw)

Required for systems seeking or approved to reduce Bromate monitoring

Plant Name:

Total Number of Samples:	Month 1:		Monthly Averages: (report all 3 months per quarter)	mg/L	Quarterly Average:	mg/L
	Month 2:			mg/L		
	Month 3:			mg/L		
Was the (0.05 mg/l) threshold exceeded? Yes [ ] No [ ]					Running Annual Average:	mg/L

IV. FOR SYSTEMS USING CHLORINE DIOXIDE *Report compliance information on your Chlorine/Chlorine Dioxide (Daily Samples) Report*

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Certified Operator Signature: William Cooksley Date: 7-9-2021

DEFINITIONS

MONTHLY AVERAGE:	Monthly average = average of all results within the current month.
QUARTERLY AVERAGE:	Quarterly Average = average result of all locations sampled during monitoring period
RUNNING ANNUAL AVERAGE:	Running Annual Average = Average of 4 quarters. *Average of this quarter and three prior consecutive quarterly averages (for systems on quarterly monitoring)*
TOTAL NUMBER OF SAMPLES:	Total number of samples collected during the monitoring period.
NOTE: Record and calculate all ND or <MDL results as the number zero (0).	

Submit one copy of this form each quarter to your DEP regional office (by Jan 10th, April 10th, July 10th, and Oct 10th of each year)

DEP REVIEW STATUS (Initial & Date)	Review Comments
[ ] Accepted _____ [ ] Disapproved _____	