

PP&L

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February 12, 1980

Dr. James E. Carson  
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SUSQUEHANNA SES  
POND HILL-TABLES. 3.2.3-2, 3 & 7  
ER 100450 FILE 991-2  
PLA-450

Dear Dr. Carson:

Attached are three corrected tables from the Pond Hill Environmental Report. This information was previously provided by telephone from PP&L.

If you have any questions, please contact me at (215) 821-5833.

Very truly yours,

(Signed) W. E. BARBERICH

W. E. Barberich  
Nuclear Licensing Group Supervisor

JSF:kl1

Attachments

cc: Mr. Singh Bajwa ✓

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TABLE 3.2.3-2  
WATER QUALITY DATA FROM THE UPPER SECTION OF POND HILL CREEK

PARAMETER (Units mg/l unless stated otherwise)	Sept. 77	Oct.	Nov.	Dec.	Jan. 78	Feb.	Mar.	Apr.	May	June	July	Aug.	n	Mean	S.D.	Max.	Min.
Temperature-Water (C.)	17.0	9.0	6.0	3.5	-0.5	0.0	5.0	8.0	10.0	12.0	14.0	17.5	12	8.5	2.92	17.5	-0.5
Dissolved Oxygen-ppm	9.3	11.2	11.3	12.5	13.0	12.4	-	12.3	11.6	9.9	8.4	8.2	11	10.9	3.30	13.0	8.2
B.O.D.	7.0	3.0	2.1	0.5	<0.5	<1	<1	<1	2.0	<1.0	<1.0	1.0	12	1.8	1.33	7.0	<0.5
C.O.D.	10.1	8.0	3.6	4.0	<5	7.3	<5	<5	<5	17.0	9.0	23.0	12	8.5	2.92	23.0	3.6
PH (s.u.)	7.00	6.30	7.25	6.70	6.80	7.25	6.45	7.20	-	7.30	6.60	6.80	11	6.88	2.622	7.30	6.30
Alkalinity - as CaCO <sub>3</sub>	5.5	2.8	2.3	6.4	17.5	3.7	1.8	8.3	4.0	14.0	17.0	17.0	12	8.4	2.89	17.5	1.8
Total Hardness - as CaCO <sub>3</sub>	24.0	17.0	20.0	15.0	15.0	16.0	17.5	30.0	14.0	18.0	82.0	20.0	12	24.0	4.90	82.0	14.0
Total Dissolved Solids	89.4	44.8	8.4	<0.5	99.4	37.8	3.0	45.5	37.6	56.5	47.4	50.4	12	43.4	6.59	99.4	<0.5
Total Suspended Solids	150.0	<0.5	516.0	3.4	11.3	13.1	6.1	6.3	2.5	9.6	6.3	40.7	12	63.8	7.99	516.0	0.5
Turbidity - FTU	-	1.0	2.5	0.6	2.2	6.0	2.3	2.0	1.9	5.5	7.0	10.0	11	3.7	1.93	10.0	0.6
Specific Conductance -m mhos	55	48	42	46	48	48	48	52	52	49	-	53	11	49.2	7.10	55	42
Color - CPU	11	<1	3	4	5	6	<1	7	10	22	23	28	12	10.1	3.18	28	<1
Sulphate as S	13.7	11.0	12.0	11.0	16.0	10.5	11.3	12.0	11.0	6.0	1.0	<1.0	12	9.7	3.12	16.0	1
Ortho Phosphate as P	0.02	0.01	0.01	0.02	0.01	0.04	0.01	<0.02	0.03	0.02	0.05	<0.01	12	0.02	0.144	0.05	0.01
Total Phosphate as P	0.01	0.02	0.02	0.08	0.01	0.04	0.06	0.03	0.09	<0.02	0.05	1.11	12	0.13	0.358	1.11	0.01
Nitrate as N	0.01	0.05	0.10	0.03	0.27	0.20	0.24	0.20	0.43	0.13	0.12	0.16	12	0.16	0.402	0.43	0.01
Ammonia as N	0.06	<0.1	0.08	0.07	0.07	0.10	0.51	0.05	0.08	0.11	0.02	<0.02	12	0.11	0.325	0.51	<0.02
Chloride	1.6	3.4	2.3	4.3	5.5	3.1	<0.5	0.5	1.7	0.4	1.7	0.6	12	2.1	1.461	5.5	0.4
Total Copper	<0.02	<0.02	<0.02	0.03	<0.02	0.05	0.02	0.02	<0.02	<0.02	<0.02	<0.02	12	0.02	0.153	0.05	<0.02
Total Iron	0.47	0.49	0.21	0.26	0.29	0.39	0.40	0.35	0.80	0.87	1.40	1.64	12	0.63	0.794	1.64	0.21
Total Manganese	0.05	0.03	0.03	<0.02	0.02	0.02	0.04	<0.02	0.05	0.05	0.07	0.02	12	0.05	0.224	0.20	<0.02
Coliform - Total MPN/100 ml	1100	1100	1100	210	43	240	240	>2400	210	>2400	1100	2400	12	1045.3	32.33	>2400	43
Coliform - Fecal MPN/100 ml	93	93	150	64	<3	<3	240	460	23	1100	23	1100	12	279.3	16.71	1100	<3
Fecal Streptococci MPN/100 ml	<1	<1	5	25	<1	<1	<1	<1	20	35	10	30	12	10.9	3.30	35	<1

TABLE 3.2.3-3  
WATER QUALITY DATA FROM THE LOWER SECTION OF POND HILL CREEK

PARAMETER (Units mg/l. unless stated otherwise)	Sept. 77	Oct.	Nov.	Dec.	Jan. 78	Feb.	Mar.	Apr.	May	June	July	Aug.	N	Mean	S.D.	Max.	Min.
Temperature-Water (C°)	16.0	9.0	6.5	3.5	0.0	1.0	4.0	6.5	8.0	10.0	14.5	19.0	12	8.2	2.86	16.0	0.0
Dissolved Oxygen-ppm	9.5	11.8	12.0	13.0	13.9	13.1	-	13.3	13.2	12.4	8.9	8.0	11	11.7	3.43	13.9	8.0
B.O.D.	8.0	4.0	1.2	0.5	<0.5	<1	3	<1	2.0	<1.0	<1	1.0	12	2.0	1.42	8.0	<0.5
C.O.D.	11.1	7.4	3.4	9.0	6.8	<5.0	<5.0	<5.0	<5.0	7.0	18.0	12.0	12	7.9	2.81	18.0	3.4
PH (s.u.)	7.10	6.65	7.60	7.10	7.00	7.30	7.30	7.55	-	7.10	6.70	6.80	11	7.11	2.666	7.60	6.65
Alkalinity - as CaCO <sub>3</sub>	7.4	11.0	2.3	1.8	23.0	1.8	<1.0	11.0	5.0	11.0	19.0	16.0	12	9.2	3.03	23.0	<1.0
Total Hardness - as CaCO <sub>3</sub>	24.0	23.0	19.0	15.0	16.0	17.0	15.5	21.0	22.0	14.0	20.0	21.0	12	19.0	4.35	24.0	14.0
Total Dissolved Solids	108.0	49.6	15.4	<0.5	102.0	56.0	14.2	133.0	43.3	52.3	44.4	56.2	12	56.2	7.50	133.0	<0.5
Total Suspended Solids	120.0	<0.5	1.4	3.1	8.9	6.1	5.2	4.9	8.3	8.2	22.4	8.0	12	16.4	4.05	120.0	<0.5
Turbidity - FTU	-	0.7	3.0	0.8	1.6	5.5	0.6	1.3	2.5	3.6	5.2	3.8	11	2.6	1.61	5.5	0.7
Specific Conductance- m mhos	59	45	48	48	46	45	68	49	50	50	-	55	11	51	7.2	68	45
Color - CPU	10	<1	3	4	5	4	<1	3	15	12	10	22	12	8	2.7	22	1
Sulphate as S	13.2	12.0	11.8	12.5	16.8	13.6	11.9	11.0	9.0	12.0	6.0	7.0	12	11.4	3.38	16.8	6
Ortho Phosphate as P	0.02	0.01	0.02	<0.01	0.02	<0.02	0.02	<0.02	0.04	0.06	0.02	<0.01	12	0.02	0.150	0.06	<0
Total Phosphate as P	0.01	<0.01	0.02	<0.01	0.01	0.05	0.10	<0.02	0.08	0.04	0.02	0.47	12	0.07	0.265	0.47	<0.01
Nitrate as N	<0.01	0.07	<0.05	0.03	0.33	0.21	0.12	<0.10	0.08	0.27	0.24	0.21	12	0.14	0.379	0.33	<0.01
Ammonia as N	0.06	<0.1	0.07	0.06	0.06	0.08	0.55	0.04	0.10	0.09	<0.02	<0.02	12	0.10	0.323	0.55	<0.02
Chloride	0.7	2.6	9.5	<0.5	2.9	11.1	<0.5	<0.5	2.1	0.4	1.08	1.0	12	2.7	1.66	11.1	0.4
Total Copper	<0.02	<0.02	<0.02	0.03	0.03	0.06	0.02	<0.02	<0.02	0.02	<0.02	<0.02	12	0.03	0.158	0.06	<0.02
Total Iron	0.60	0.46	0.22	0.20	0.25	0.39	0.34	0.25	0.41	1.08	3.11	0.65	12	0.66	0.814	3.11	0.20
Total Manganese	0.03	0.04	0.02	0.04	0.02	0.02	<0.02	<0.02	0.03	0.04	0.21	0.10	12	0.05	0.222	0.21	<0.02
Coliform - Total MPN/100 ml	460	240	150	150	43	43	460	460	210	>2400	240	>2400	12	609	24.7	>2400	43
Coliform - Fecal MPN/100 ml	240	9	23	23	4	<3	43	43	43	93	9	93	12	52	7.2	240	<3
Fecal Streptococci MPN/100 ml	10	<1	<1	<1	<1	<1	<1	<1	10	20	<1	<1	12	4	2.0	20	<1

TABLE 3.2.3-7  
WATER QUALITY IN THE SUSQUEHANNA RIVER  
NEAR THE PROPOSED INTAKE SITE

PARAMETER (Units mg/l unless stated otherwise)	Sept. 77	Oct.	Nov.	Dec.	Jan. 78	Feb.	Mar.	Apr.	May.	June	July	Aug.	N	Mean	S.D.	Max.	Min.
Temperature-Water (C°)						3.0	7.0	13.5	16.0	22.0	25.0		6	14.4	3.80	25.0	3.0
Dissolved Oxygen-ppm						-	12.6	10.7	14.9	8.9	9.0		5	11.2	3.35	14.9	3.35
B.O.D.						1.0	<1	3.0	<1	2.0	5.0		6	2.2	1.47	5.0	<1
C.O.D.						7.0	24.0	5.0	7.0	10.0	25.0		6	13.0	3.61	25.0	5.0
pH (s.u.)						7.25	7.60	-	8.60	7.20	7.20		5	7.57	2.751	8.60	7.20
Alkalinity - as CaCO <sub>3</sub>						23.0	41.4	19.0	46.0	66.0	60.0		6	42.6	6.52	66.0	19.0
Total Hardness - as CaCO <sub>3</sub>						66.1	84.0	73.0	109.0	167.0	136.0		6	105.9	10.29	167.0	66.1
Total Dissolved Solids						67.2	122.0	138.0	196.0	290.0	215.0		6	171.4	13.09	290.0	67.2
Total Suspended Solids						9.1	21.7	7.5	19.9	9.5	36.5		6	17.4	4.17	36.5	9.1
Turbidity - FTU						16	7.5	5.1	9.8	11.0	12.0		6	10.2	3.20	16.0	5.1
Specific Conductance - mhos						160	190	200	230	-	330		5	222	14.9	330	160
Color - CPU						26	7	25	68	65	80		6	45	6.72	80	7
Sulphate as S						28.8	30.0	46.0	97.0	180.0	148.0		6	88.3	9.40	180.0	28.8
Ortho Phosphate as P						0.06	0.04	0.06	0.02	<0.01	0.10		6	0.05	0.22	0.10	<0.01
Total Phosphate as P						0.07	0.05	0.12	0.10	0.04	0.84		6	0.20	0.45	0.84	0.04
Nitrate as N						0.97	1.00	0.73	0.61	0.43	0.55		6	0.72	0.846	1.00	0.43
Ammonia as N						0.51	0.07	0.11	0.05	0.03	<0.02		6	0.13	0.363	0.51	<0.02
Chloride						12.8	11.0	6.2	11.5	18.4	14.5		6	12.4	3.52	18.4	6.2
Total Copper						<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		6	<0.02	0.141	<0.02	<0.02
Total Iron						2.11	1.96	1.63	2.43	2.34	4.70		6	2.53	1.590	4.70	1.63
Total Manganese						0.29	0.19	0.32	0.49	0.66	0.90		6	0.48	0.689	0.90	0.19
Coliform - Total MPN/100 ml						>2400	43	>2400	>2400	>2400	>2400		6	2007	44.8	>2400	43
Coliform - Fecal MPN/100 ml						240	3	210	460	460	1100		6	412	20.3	1100	3
Fecal Streptococci MPN/100 ml						10	<1	35	85	10	65		6	34	5.9	85	<1