OhioEPA
State of Ohio Environmental Protection Agency

Southeast District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

December 4, 2009

Re: Gallia County
Ohio Valley Electric Kyger Creek
NPDES 0IB00005*ND
Spill Investigation
Correspondence (IWW)

Mr. Donald T. Fulkerson, Env. Affairs Director
Ohio Valley Electric Corp.
3932 U.S. Route 23
P.O. Box 468
Piketon, Ohio 45661

Dear Mr. Fulkerson:

On July 28, 2009 at 4 p.m., I conducted an inspection of the Ohio Valley Electric Kyger Creek Plant for the purpose of investigating a reported fish kill in Kyger Creek. I met with Hank Cleland and Jennifer McKibben both of whom represented OVEC and accompanied me.

A few dead fish were observed near the outlet side of the fly ash pond. The fly ash pond discharge did not exhibit any odor or unusual appearance. A number of dead fish were observed in Kyger Creek between the outfall 005 discharge point and State Route 7.

Ohio EPA first received an anonymous call regarding a fish kill in Kyger Creek on the afternoon of July 27, 2009. ODNR, Wildlife was informed by Ohio EPA and they conducted the first investigation on the morning of July 28, 2009, and confirmed a fish kill. Ohio EPA contacted Ohio Valley Electric Kyger Creek plant around noon on July 28, 2009. Under the conditions of Part III (Item 12) of the NPDES discharge permit, OVEC should have notified Ohio EPA of the problem within 24 hours of discovery, or by 10:30 a.m. on July 28, 2009.

Ohio EPA, Emergency Response and Water Quality Section personnel, arrived at Kyger Creek near OVEC at 1:25 p.m., on July 28, 2009, and observed that a fish kill in Kyger Creek had occurred. Water sampling of Kyger Creek and outfall 0IB00005005 was conducted. A follow-up sampling event was conducted on August 5, 2009. The results are attached. The sampling results at outfall 005 indicate a high ammonia level on July 28, 2009; as well as a pH of 9.23 S.U. which is a violation of the NPDES permit limit of 9.0 S.U.

ODNR, Wildlife conducted a fish kill survey on July 29, 2009, and reported that 4,917 dead fish were counted downstream of the discharge in Kyger Creek.

The discharge of ammonia at outfall 005 which caused the fish kill is a violation of your NPDES discharge permit 0IB00005*ND, Part III, Item (2).

We have received your written explanation dated July 31, 2009, of the event above. We are recommending a formal enforcement action regarding this event. Your plan to utilize alternative disposal methods for the recycle tank solution water and to not route any to the fly ash pond for disposal must be followed. No further information is requested at this time.

If you have any questions, please contact me at (740) 380-5218.

Sincerely,

Dan Messerly
District Representative
Division of Surface Water

DM/dh

Enclosure

c: Gary Edwards, Environmental Supervisor

TABLE I

OHIO EPA FIELD DATA

FACILITY/LOCATION: Kyger Creek/OVEC, Gallia County

DATES SAMPLED: July 28 and August 5, 2009

Station	Date	Time	Parameter	Units	Value	Permit Limits
Kyger Creek upstream Outfall 005						
	7/28	1425	pH	S.U.	7.58	-
			Temperature	°C	23.27	-
			Dissolved oxygen	mg/l	7.97	-
			Conductivity	umhos/cm	1725	-
	8/5	0905	pH	S.U.	7.83	-
			Temperature	°C	22.18	-
			Dissolved oxygen	mg/l	7.83	-
			Conductivity	umhos/cm	1122	-
Kyger Creek dst. Little Kyger Creek						
	7/28	1350	pH	S.U.	8.75	-
			Temperature	°C	27.21	-
			Dissolved oxygen	mg/l	6.96	-
			Conductivity	umhos/cm	876	-
	8/5	0932	pH	S.U.	7.87	-
			Temperature	°C	24.04	-
			Dissolved oxygen	mg/l	7.19	-
			Conductivity	umhos/cm	901	-

Station	Date	Time	Parameter	Units	Value	Permit Limits
OVEC Outfall 005						
	7/28	1430	pH	S.U.	8.81	6.0-9.0
			Temperature	°C	27.27	-
			Dissolved oxygen	mg/l	7.03	-
			Conductivity	umhos/cm	780	-
	8/5	0910	pH	S.U.	8.37	6.0-9.0
			Temperature	°C	26.16	-
			Dissolved oxygen	mg/l	7.38	-
			Conductivity	umhos/cm	668	-

TABLE II

OHIO EPA LAB DATA

FACILITY/LOCATION: Kyger Creek/OVEC, Gallia County

DATES SAMPLED: July 28 and August 5, 2009

Date	Time	Parameter	Units	Value
Kyger Creek upstream Outfall 005				
7/28/09	1425	Total Susp. Solids	mg/l	<5
		pH	s.u.	7.27
		Arsenic	ug/l	2.1
		Cadmium, tot.	ug/l	<0.2
		Chromium, tot.	ug/l	<2.0
		Copper, tot.	ug/l	2.4
		Lead, tot.	ug/l	<2.0
		Nickel, tot.	ug/l	25.4
		Selenium	ug/l	8.1
		Aluminum	ug/l	<200
		Hardness	mg/l	750
		Iron	ug/l	341
		Zinc, tot.	ug/l	24
		Mercury, tot.	ug/l	<0.2
		Ammonia	mg/l	<0.05
		Nitrate/nitrite	mg/l	0.24
		Sulfate	mg/l	575
		TKN	mg/l	0.53
8/5/09	0905	Total Susp. Solids	mg/l	<5
		pH	s.u.	7.39
		Ammonia	mg/l	<0.05
		COD	mg/l	<20
		Nitrate/nitrite	mg/l	0.19
		Sulfate	mg/l	342
		TKN	mg/l	0.50

Date	Time	Parameter	Units	Value
Kyger Creek dst. Little Kyger Creek				
7/28/09	1350	Total Susp. Solids	mg/l	8
		pH	s.u.	9.31
		Arsenic	ug/l	6.8
		Cadmium, tot.	ug/l	<0.2
		Chromium, tot.	ug/l	26.7
		Copper, tot.	ug/l	4.0
		Lead, tot.	ug/l	<2.0
		Nickel, tot.	ug/l	5.5
		Selenium	ug/l	6.2
		Aluminum	ug/l	2230
		Hardness	mg/l	376
		Iron	ug/l	246
		Zinc, tot.	ug/l	<10
		Mercury, tot.	ug/l	<0.2
		Ammonia	mg/l	11.7
		Nitrate/nitrite	mg/l	0.88
		Sulfate	mg/l	321
		TKN	mg/l	23.1
8/5/09	0932	Total Susp. Solids	mg/l	6
		pH	s.u.	8.05
		Ammonia	mg/l	1.52
		COD	mg/l	<20
		Nitrate/nitrite	mg/l	5.22
		Sulfate	mg/l	292
		TKN	mg/l	3.34

Date	Time	Parameter	Units	Value
OVEC Outfall 005				
7/28/09	1430	Total Susp. Solids	mg/l	9
		pH	s.u.	9.23
		Arsenic	ug/l	7.3
		Cadmium, tot.	ug/l	<0.2
		Chromium, tot.	ug/l	29.3
		Copper, tot.	ug/l	3.6
		Lead, tot.	ug/l	<2.0
		Nickel, tot.	ug/l	3.0
		Selenium	ug/l	6.6
		Aluminum	ug/l	2570
		Hardness	mg/l	339
		Iron	ug/l	251
		Zinc, tot.	ug/l	<10
		Mercury, tot.	ug/l	<0.2
		Ammonia	mg/l	13.2
		Nitrate/nitrite	mg/l	0.98
		Sulfate	mg/l	305
		TKN	mg/l	29.1
8/5/09	0910	Total Susp. Solids	mg/l	5
		pH	s.u.	8.58
		Ammonia	mg/l	2.19
		COD	mg/l	25
		Nitrate/nitrite	mg/l	1.63
		Sulfate	mg/l	266
		TKN	mg/l	4.37