SUMMARY

of

COMMENTS ON DRAFT SPDES PERMIT #NY-0001643 (KODAK PARK)

by

THE ATLANTIC STATES LEGAL FOUNDATION (ASLF)

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1. BACKGROUND, AND MAJOR CRITICISMS OF THE DRAFT PERMIT

Kodak is a major polluter of the Genesee River and of Lake Ontario. Kodak's own reports indicate that the company currently discharges as much as 640,000 lbs/year (1,750 lbs/day) of toxic pollutants into the Genesee River via its King's Landing wastewater treatment plant outfall, including 180,000 lbs/year of ammonia, 126,000 lbs/year of other toxic inorganics, and 334,000 lbs/year of toxic organics. The company's discharges include as much as 189,000 lbs/year of known, suspected, or experimental carcinogens, and similarly enormous quantities of experimental teratogens (248,000 lbs/year) and reproductive toxins (219,000 lbs/year), and of skin and eye irritants (580,000 lbs/year).

Kodak is authorized, under its current SPDES permit, to discharge some 23 toxic substances into the Genesee River via its King's Landing wastewater treatment plant outfall. Even so, only about 40 percent of the total mass of toxic pollutants discharged by Kodak is authorized. Unauthorized discharges amount to as much as 387,000 lbs/year.

The Genesee River is classified by the New York State Department of Environmental Conservation (DEC) as a "Class B" fresh water, and under that classification is supposed to be suitable for swimming, fishing, and fish propagation and survival. Anglers have reported, however, that the river contains a "dead zone" where fish are seldom seen, stretching downstream from Kodak's wastewater treatment plant outfall. These reports, in combination with what is known about the toxic properties of the pollutants discharged and toxicity testing data from Kodak indicating that samples of its effluent may have harmful effects on aquatic test species, suggest that the company's wastewater effluent may have serious adverse impacts on the aquatic life and ecology of the lower Genesee River. The DEC is sufficiently concerned about water quality in this stretch of river that it has included the lower Genesee in the 1991 "Priority Water Problems List" as being, or suspected of being, "use impaired" for fishing and "stressed" for fish propagation and survival. The Department is currently carrying out a two-year study to evaluate fish and invertebrate populations, and other indicators of water quality, in the river.

The Genesee River drains into Lake Ontario within the Rochester Embayment, only about four miles from King's Landing. Lake Ontario is classified by the DEC as a "Class A" fresh water, and is supposed, under that classification, to be suitable as a water supply for drinking, as well as for swimming, fishing, and fish propagation and survival. The Rochester Embayment is identified by the DEC as being "use impaired", and as having a high priority for remediation. Further, it is a designated Area of Concern under the 1987 amendments to the Great Lakes Water Quality Agreement. As such, it has been identified as being a principal target for clean-up and restoration, and is the subject of a Remedial Action Plan.

It is in this context that Kodak has applied for renewal of its SPDES permit. The DEC has recently made available for public comment a draft permit that would:

(1) authorize Kodak to increase its discharges of the 23 toxic pollutants that are covered by its current permit to levels far in excess of their estimated current aggregate discharge level of about 253,000 lbs/year;

(2) specifically authorize Kodak to discharge -- in many cases without either clearly defined limits or monitoring requirements -- at least 46, and possibly as many as 53, toxic pollutants whose discharge is not authorized under the current permit, and authorize the company to increase its discharges of these pollutants to levels far in excess of their estimated current (unauthorized) discharge levels that amount to an aggregate of about 387,000 lbs/year;

(3) provide a general authorization for Kodak to discharge, without specific limit or monitoring, any "substances not included in the Superfund Amendments and Reauthorization Act, Title III, Section 302 list of Extremely Hazardous Substances and not required to be reported on the New York State SPDES permit application (including the Industrial Chemical Survey and the Superfund Amendments and Reauthorization Act, Title III, Section 313, Toxic Release Inventory), provided the special conditions section of this permit does not otherwise forbid such a discharge";

(4) fail to require Kodak to adequately monitor and report its discharges of most of the pollutants whose discharge would be authorized by the permit;

(5) fail to require Kodak to monitor for toxic pollutants whose discharge would not be authorized under the terms of the permit, but whose use by Kodak poses a danger that releases may occur in significant quantities; and

(6) fail to require Kodak to adequately monitor the toxicity of its discharges, to examine the possible carcinogenicity, reproductive toxicity and teratogenicity of these discharges, or to examine the effects of the discharges on the aquatic life and ecology of the Genesee River.

The draft permit appears to be directed towards legitimizing Kodak's current discharge practices, and towards giving Kodak scope to discharge increased quantities of toxic pollutants, rather than towards reducing the pollution of the Genesee River by Kodak or restoring water quality in the river and in Lake Ontario. ASLF believes that issuance of the permit to Kodak without radical changes would be inconsistent with New York State law, the Clean Water Act, and the Great Lakes Water Quality Agreement.

2. GENERAL RECOMMENDATIONS

ASLF believes that in order for Kodak's SPDES renewal permit to be in compliance with the requirements of the Clean Water Act and New York State law, and consistent with the goals of the Great Lakes Water Quality Agreement, it must be subjected to radical revision. Any revised permit should incorporate the following principles and recommendations:

(1) The permit must require Kodak to make a serious advance towards meeting the Clean Water Act's goals of reducing and eliminating the discharge of pollutants into the waters of the United States, and towards implementing the policy of the State of New York which requires the use of all available and reasonable methods to prevent and control the pollution of the waters of the State. This could be achieved primarily by setting appropriate limits on the long-term daily average discharge of each of the toxic pollutants whose discharge is authorized under the permit. These limits should be set, initially, in such a way that Kodak would be prohibited from discharging, on an annual basis, any more of these pollutants than it is currently discharging. The limits should be lowered for each successive year of the permit term, to insure that Kodak's average annual discharge of hazardous and toxic pollutants is reduced substantially over the five year period.

(2) The permit should require Kodak to make a serious advance towards achieving the goal of zero discharge of persistent toxic pollutants, including arsenic, cadmium, chromium, lead, manganese, mercury, nickel, zinc, dibutyl phthalate, and all other pollutants falling under the International Joint Commission's recommended revised definition of "persistent toxic substance" (see the Sixth Biennial Report on Great Lakes Water Quality, International Joint Commission, 1992, pp. 26 and 57). Under the permit, Kodak should be required, in the first year of the permit term, to review its use of these pollutants, and to identify and begin to introduce alternative technologies that would reduce or eliminate their use. Discharge limits should be made progressively more stringent in each successive year of the permit term. By the final year, the discharge of these pollutants should no longer be authorized. Continued monitoring for these pollutants should, however, be required unless and until they are no longer in use at Kodak Park.

(3) The permit should require Kodak to develop, in the first year of the permit term, timetables for sunsetting the use of chlorine and chlorine-containing compounds as industrial feedstocks, and to examine all means of reducing or eliminating other uses of these pollutants, as recommended by the International Joint Commission (see the Sixth Biennial Report on Great Lakes Water Quality, International Joint Commission, 1992, pp. 30 and 57). An explicit goal

under the permit should be the elimination of the discharge of chlorine and all chlorine-containing compounds. Discharge limits for all chlorine-containing compounds should be lowered progressively over the permit term, in such a way as to reduce the discharge of these compounds by a minimum of 75% by the final year.

(4) The permit should require drastic reduction, over the five-year permit term, of the discharge of several additional organic pollutants that Kodak currently discharges in very large quantities. These pollutants include ammonia, 1,4-diethylene dioxide, tetrahydrofuran, ethylene glycol, N,N-dimethylaniline, cyanide, 2-methoxyethanol, acetone, isopropanol, methanol, and methyl ethyl ketone.

(5) The permit should not authorize Kodak to discharge any substance that does not, as part of its manufacturing or use processes, contact water that will ultimately be discharged into the Genesee River or other waters, unless the clean-up of the manufacturing or process equipment necessarily involves the use of such water, or unless the substance is unavoidably generated and discharged as a by-product of the manufacture or use of some other substance.

(6) The permit should not allow the discharge of any substance whose release is or may be subject to reporting under SARA Title III, Secs. 302, 304 or 313, to be covered by an "Ultimate Oxygen Demand" ("UOD") indicator limit.

(7) The permit must not contain the special condition that would authorize the discharge, without specific limits or monitoring requirements, of pollutants not specifically identified in the permit.

(8) For every pollutant whose discharge is authorized, the permit should impose appropriate daily maximum, short-term daily average and long-term daily average limits.

(9) The permit should require regular and frequent monitoring of Kodak's King's Landing wastewater treatment plant effluent for each substance whose discharge is authorized under the permit, and for all other substances that are manufactured or used by Kodak and whose releases are or may be subject to reporting under SARA Title III, Secs. 302, 304 and/or 313. For all pollutants whose discharge is authorized, measurements should be required at least once every 4 days (minimum of 7 times per month). Monitoring for substances whose discharge is not authorized should be required at least once every 7 days (minimum of 4 times per month).

(10) The permit should require that for all pollutants for which the analytical technology currently employed by Kodak or recommended for use by the DEC is inadequate for determining Kodak's compliance with discharge limitations, Kodak should investigate, develop and bring into use technology that <u>is</u> adequate for this purpose.

(11) The permit should require Kodak to conduct, over the full five-year term of the permit, regular and frequent tests of both acute and chronic toxicity of the King's Landing wastewater treatment plant effluent. Testing should include evaluation of the carcinogenicity, mutagenicity, reproductive toxicity and teratogenicity of the effluent. Kodak should also be required to conduct studies aimed at evaluating the effects of its discharges on the aquatic life and ecology of the Genesee River.

APPENDIX 3

ASLF'S BEST ESTIMATES OF KODAKS' CURRENT ANNUAL AND DAILY AVERAGE DISCHARGES

ASLF's best estimates of Kodak's current annual and daily average discharges into the Genesee River, based on a review of:

(1) Kodak's SPDES permit reneval application record, and
(2) Kodak's Form R reports for 1987-91 (annual, and averages for 1987-91 and 1990-91).

Figures are approximate, and are not mathematically formulated -- they are simply intended to be fair approximations based on whatever data are available.

TOXIC AND/OR HAZARDOUS INORGANICS

A. POLLUTANTS COVERED BY 1984 PERMIT

Pollutant	CAS #	Lbs/year	Lbs/day
Ammonia	7664-41-7	180,000	493
Arsenic	7440-38-2	350	1.0
Cadmium	7440-43-9	1,100	3.0
Chromium	7440-47-3	3,000	8.2
Copper	7440-50-8	3,800	10
Lead	7439-92-1	4,200	12
Mercury	7439-97-6	-	-
Nickel	7440-02-2	2,500	6.8
Silver	7440-22-4	8,200	22
Zinc	7440-66-6	28,000	77

B. POLLUTANTS NOT COVERED BY 1984 PERMIT

Pollutant	CAS #		
Antimony	7440-36-0	4,100	11
Barium	7440-39-3	10,900	30
Cobalt	7440-48-4	100	0.3
Manganese	7439-96-5	60,000	164

TOXIC AND/OR HAZARDOUS ORGANICS

A. POLLUTANTS COVERED BY 1984 PERMIT

Pollutant	CAS #	Lbs/year	Lbs/day
Chloroform	67-66-3	1,450	4.0
Cyanide	57-12-5	3,300	9.0
1,2-Dichloroethane	107-06-2	2,050	5.6
Dichloromethane	75-09-2	4,500	12
1,2-Dichloropropane	78-87-5	4,550	12
N,N-Dimethylaniline	121-69-7	3,800	10
Pyridine	110-86-1	700	1.9
Xylene	1330-20-7	1,450	4.0
Phenolics		1,000	2.7
4,4-Butylidene bis(6-t butyl-m-cresol)		100	0.3
2,4-Dimethyl phenol	105-67-9		
Cresols	1319-77-3		
2-Methyl phenol	95-48-7		
3-Methyl phenol	108-39-4	450	1.2
4-Methyl phenol	106-44-5		
2,4-Di-t-pentyl phenol			
Phenol	108-95-2	450	1.2
Chlorinated phenolics		50	0.14
4-Chloro-3,5-dimethyl phenol		25	0.07
2,4-Dichlorophenol	120-83-2	25	0.07

B. POLLUTANTS NOT COVERED BY 1984 PERMIT

a. Pollutants Specifically Limited Under Draft Permit

Pollutant	CAS #		
Bis(2-chloroethyl)ether	111-44-4	35	0.10
1,1-Dichloroethylene	75-35-4	50	0.14
1,4-Diethylene dioxide	123-91-1	125,000	342
2,6-Dinitrotoluene	606-20-2		
Ethylene glycol	107-21-1	24,000	66
Hydroquinone	123-31-9	150	0.4
Tetrahydrofuran	109-99-9	34,000	93
1,1,1-Trichloroethane	71-55-6	400	1.1
1,1,2-Trichloroethane	79-00-5	600	1.6

b. Pollutants Subject to Monitoring Only

Pollutant	CAS #
2,3,7,8-Tetrachloro-benzo-p-dioxin	1746-01-6

c. Pollutants Subject to "Action Levels"

Pollutant	CAS #	Lbs/year	Lbs/day
Bis-(2-ethylhexyl) phthalate	117-81-7		
Di-n-butyl phthalate	84-74-2	7,150	20
Isophorone	78-59-1		
Nitrobenzene	98-95-3		
Trichloroethylene	79-01-6	20	0.05

d. Pollutants Covered by "UOD" Indicator

Pollutant	CAS #		
Acetaldehyde	75-07-0	30	0.08
Acetone	67-64-1	39,000	107
Acetic acid	64-19-7		
N-Butanol	71-36-3	400	1.1
Sec-Butanol	78-92-2		
Cyclohexane	110-82-7	10	0.03
Ethyl acetate	141-78-6	100	0.3
Ethyl acrylate	140-88-5		
Isobutanol	78-83-1		
Isopropanol	67-63-0	31,500	86
Methanol	67-56-1	24,000	66
2-Methoxyethanol	109-86-4	16,000	44
Methyl acrylate	96-33-3		
Methyl ethyl ketone	78-93-3	3,450	9.5
Methyl isobutyl ketone	108-10-1	600	1.6

e. Pollutants That Are or May Be Covered By Special Condition, "Discharges Authorized By This Permit" Section (4)

Pollutant	CAS #	Lbs/year	Lbs/day
Detected			
Dichlorobromomethane	75-27-4		
Ethyl benzene	100-41-4		
Contacting, Undetected			
Acrylonitrile	107-13-1		
Benzene	71-43-2		
Carbon tetrachloride	56-23-5		
Chlorobenzene	108-90-7		
Epichlorohydrin	106-89-8		
Propylene oxide	75-56-9		
Styrene	100-42-5	120	0.3
1,1,2,2-Tetrachloro-ethylene	127-18-4		
Toluene	108-88-3	350	1.0
Contacting, Not Analyzed For			
Maleic anhydride	108-31-6		
Phthalic anhydride	85-44-9		
Section 313			
Acetonitrile	75-05-8	2,500	6.8
Acrylamide	79-06-1		
Butyl acrylate	141-32-2	4	0.01
Catechol	120-80-9	6	0.02
Diethanolamine	111-42-2	2,000	5.5
Formaldehyde	50-00-0	28	0.05
Tert-butyl alcohol	75-65-0	40	0.11