TESTIMONY PRESENTED BY

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ASHLAND OIL, INC.

BEFORE THE JOINT NEW YORK STATE
ASSEMBLY COMMITTEE ON ENVIRONMENTAL CONSERVATION
AND SUBCOMMITTEE ON TOXIC HAZARDOUS SUBSTANCES
AND
SENATE COMMITTEE ON CONSERVATION AND RECREATION
AND SUBCOMMITTEE ON TOXIC SUBSTANCES AND CHEMICAL WASTES

DECEMBER 10, 1981
NIAGARA FALLS, NEW YORK

My name is Ron Willenbrink, Director of Environmental Affairs & Energy Utilization for Ashland Oil, Inc. Ashland appreciates the opportunity to appear at this joint public hearing in order to comment on portion of the "Ravaged River Report" which relates to Ashland operations in the area.

Although my primary intent here today is to correct comments made in the report about Ashland's contribution to purported Niagara River problems, I would be remiss if I didn't comment on the tenor of the report. The report is repleat with such phrases as . . "polluted beyond belief, indiscriminately dumped, permit program sanctions discharges of toxic pollutants, water quality will continue to deteriorate". These unsubstantiated comments do not focus on problems and solutions, they focus on emotion. A theme throughout the report is that little to nothing has been done both technically and regulatorily to reduce pollutants in the river. Those of us that work in the environmental area know that such a theme is not supported by fact. Admittedly, progress may not have been as fast as many desired, however, progress continues to be made.

What I would like to do now is review point by point those comments relating to Ashland Oil.

Three Ashland facilities are listed in the report. The facility at 3701 River Road, (#36) listed as an Ashland

Petroleum Company petroleum storage facility, the Canlake Terminal (#42) at 740 Grand Island Boulevard, and the refinery, (#43) at 4545 River Road.

The facility (#36) at 3701 River Road is not operated by Ashland Petroleum Company as a petroleum storage facility. It is, in fact, a chemical storage and distribution center operated by the Ashland Chemical Company. No manufacturing takes place at the site. The facility does not discharge waste water. Any wastes generated from the handling and shipment of products are collected and returned to Ashland's refinery at 4545 River Road for reprocessing. In this case it appears the authors of the report assumed the facility was similar to petroleum storage facilities along the river. This is not the case.

Ashland's Canlake Terminal (#42) stores only distillate fuel oils (home heating oil, diesel fuels). No crude oil is stored at this facility. The water discharges are intermittent stormwater runoff which pass through an oil-water separator. The discharge has an SPDES permit issued by the state. As stated, the facility is regulated for oil & grease. The report suggests the facility be regulated for toxics, and infers that chemical contaminants are presently in the discharge. This type comment is made in reference, not only to Canlake, but to several other petroleum storage facilities along the river without any justification for the statement. Considering

the nature of the operation and the type of petroleum products stored at the facility, chemical contamination of the storm water is unlikely.

Comments about the Ashland Petroleum Company - Buffalo Refinery at 4545 River Road, Tonawanda, N.Y. (#43) contain many inaccuracies and innuendo. The report states that the "cooling water to the Niagara River is designated as a principal discharge of toxic heavy metals and organics". The cooling water discharge is once through water pumped directly from the river, through heat exchangers, and back to the river. It doesn't come in contact with petroleum products, therefore, the opportunity for contamination is nil. The water passes through an oil/water separator prior to discharge to the river in the event a heat exchanger should leak and oil enter the water. A diagram of the system is attached.

The cooling water is not a principal source of heavy metals and organics. The cooling water discharge is routinely monitored, as required in our SPDES permit, for total organic carbon (TOC). The permit TOC limitation is 5 parts per million. The discharge is not routinely analyzed for heavy metals because heavy metals contamination is not a problem in refinery once through cooling water systems. Bio-assays done by both the New York State Department of Environmental Conservation and Ashland (by outside laboratory) showed no mortality in 100% effluent. In other words, the effluent is

non toxic. The consultants report is attached.

The report goes on to state that although toxic pollutants are known to be present in the facility's effluent, the SPDES permit fails to provide comprehensive toxic control. The "effluent" the report refers to does not discharge directly to the Niagara River. This "effluent" is the refinery process waste water which is pretreated by oil-water separation and dissolved air flotation prior to discharge to the new Town of Tonawanda secondary/tertiary waste water treatment system. The SPDES permit from which the report quotes pollutant discharge limits was withdrawn in 1979 when, with both the state and USEPA concurrence, the process waste water was diverted to the new Town of Tonawanda treatment plant.

It is widely known that refinery process waste water, prior to treatment, contains minor amounts of priority pollutants, however, it is also known that well operated secondary treatment plants, both industrial and municipal, significantly reduce those concentrations of priority pollutants. Recent analysis of the Ashland's refinery process waste water indicates expected types and concentrations of priority pollutants. Fourteen of the 129 priority pollutants were detected. The highest average concentration was 7 parts per million, with only one other compound exceeding 1 part per million. Only a few samples were analyzed, however, the types and concentration were similar to those levels found

in other refinery waste waters before secondary treatment. See references.

I have no specific knowledge as to the priority pollutant removal efficiency of the Town of Tonawanda treatment plant. However, data is available to show that well operated secondary treatment plants significantly reduce priority pollutants. This data collected by both the USEPA and the petroleum industry indicate that although refinery process wastes contain limited amounts of priority pollutants, secondary treatment systems are extremely effective in reducing said compounds to trace or non detectable levels.

Such data is contained in the following reports.

1) Analysis of Refinery Waste Waters for the EPA Priority Pollutants, API Publication 4296, May 1978. Intake waters, waste water feed to biotreatment units, and final effluent streams from 17 petroleum refineries were sampled by USEPA and API and screened for the 129 priority pollutants.

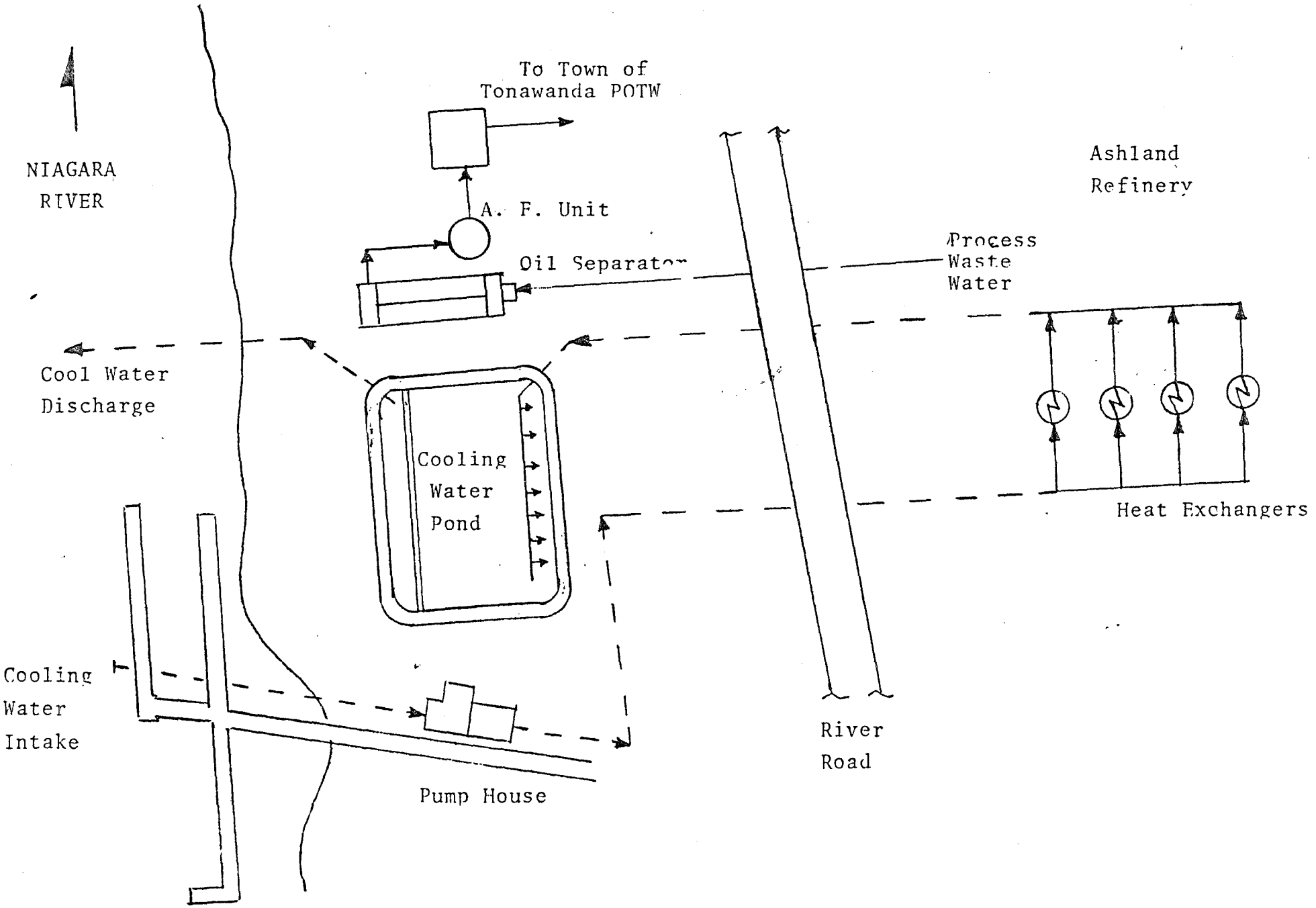
2) Fate of Priority Pollutants in Publicly Owned Treatment Works, EPA-440/1-80-301, October 1980. Influents and effluents from 20 POTW's were sampled and analyzed for priority pollutants representing the full spectrum of common secondary treatment processes. Influent industrial contribution ranged from 5-50% of the total flow.

3) New Orleans Refinery Waste Water Study-Sample Analysis and Evaluation of Data. Radian Corporation. This study (Joint EPA-API) is presently in draft form and has not been released. Two refineries with well operated secondary treatment plants were studied daily for two months. The results indicated significant reduction of priority pollutants to trace or non detectable levels.

The report also suggests our compliance record has been poor, listing a fine of $600 paid in May, 1975. The fine in question was not for a permit violation, but for a small oil spill which occurred on October 7, 1974, and another which occurred on January 9, 1975 when an oil drip pan overflowed at the loading dock. The so-called "repeated" phenol limitation violations occurred on October 5, 6, and 7, 1976 and were caused by an excess amount of spent caustic (high phenol) entering the sewer system. On those days we exceeded our 55#/day phenol limitation by 51, 157, and 267 #/day respectively.

I would like to conclude by saying that while I can only comment on the accuracy of data in the report relating to Ashland, if these sections are a general indication of the depth of review that went into preparation of the report, the public was done a disservice by its release. Ashland would recommend that the report be reviewed by a peer group, revised as necessary, and then reissued to the public.

Thank you


NIAGARA
RIVER
To Town of
Tonawanda POTW
A. F. Unit
Oil Separator
Ashland
Refinery
Process
Waste
Water
Cool Water
Discharge
Cooling
Water
Pond
Heat Exchangers
Cooling
Water
Intake
Pump House
River
Road

AP-351-D214

24-HOUR STATIC SCREENING BIOASSAY TEST

November 3, 1981

Prepared for:

ASHLAND OIL & PETROLEUM COMPANY
4545 River Road
Town of Tonawanda, New York 14150

ecology and environment, inc.
195 SUGG ROAD, P.O. BOX D, BUFFALO, NEW YORK 14225, TEL. 716-632-4491
International Specialists in the Environmental Sciences

1. INTRODUCTION

Ashland Oil & Petroleum Company contracted with Ecology and Environment, Inc., (E & E) to perform a 24-hour static screening bioassay test on discharge water from its Buffalo refinery. The purpose of the test was to provide independent confirmation of results regarding the acute toxicity of the discharge water obtained by the New York State Department of Environmental Conservation (DEC). Samples for E & E and DEC test were taken at the same time on October 19, 1981.

5. RESULTS AND DISCUSSION

No mortality of the test species occurred in any of the test beakers or chambers. In addition, no abnormal signs of behavior or stress were observed in any of the test species. The results of the test are summarized in Table 5-1.

Based on the 0% mortality of both D. magna and P. promelas, it was determined that the effluent of Ashland Oil & Petroleum Company was not acutely toxic. These findings confirm the results obtained by DEC.

Table 5-1

PHYSICAL MEASUREMENT AND PERCENT MORTALITY OF TEST SPECIES

24-Hour Static Screening Bioassay Test Groups	Percent Mortality *D. magna*	Percent Mortality *P. promelas*	pH		Dissolved Oxygen	
			Before	After	Before	After
			(SU)		(mg/L)	
100% Effluent A	0	0	8.1	7.8	8.2	4.3
100% Effluent B	0	0	8.2	7.8	8.1	4.4
Control A	0	0	8.2	7.9	8.4	5.5
Control B	0	0	8.2	7.8	8.3	5.3

Refinery Process Wastewater Discharged to POTW

Priority Pollutants Detected *

Compound	Concentration (ug/l)
Benzene	7000
Chloroform	33**
1,2 Dichloroethane	11
Ethylbenzene	675
Methylene chloride	11**
Toluene	4350
1,1,1, Trichloroethane	16**
2,4 Dimethylphenol	150**
Phenol	295
Anthracene	90
Fluorene	14**
Naphthalene	655
Phenanthrene	90
Pyrene	71**

* Two 24-hour composites, taken one week apart.

** Only detected in one sample.