

ILLINOIS POLLUTION CONTROL BOARD  
December 20, 1989

ARCO PRODUCTS COMPANY, a wholly )  
owned subsidiary of ATLANTIC )  
RICHFIELD COMPANY, )  
 )  
Petitioner, )  
 )  
v. ) PCB 89-5  
 ) (Permit Appeal)  
ILLINOIS ENVIRONMENTAL )  
PROTECTION AGENCY, )  
 )  
Respondent. )

MR. JOSEPH S. WRIGHT, JR., OF MARTIN, CRAIG, CHESTER &  
SONNENSCHNEIN, APPEARED ON BEHALF OF PETITIONER;

MR. JOHN J. BRESLIN, APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by R. C. Flemal):

This matter comes before the Board upon a petition to appeal an NPDES permit filed by Arco Products Company ("ARCO") on January 13, 1989. Specifically, ARCO requests review of the Illinois Environmental Protection Agency ("Agency") imposed limits and monitoring for toluene, xylenes, benzene, lead, and total phenols.

A Board hearing was held on June 27, 1989 in Mount Prospect, Illinois; no members of the public attended. Briefs were filed by Petitioner on August 11, 1989, by the Agency on September 15, 1989, with a reply brief filed by Petitioner on September 22, 1989.

BACKGROUND

ARCO owns and operates a gasoline loading and jet fuel storage and distribution terminal located at 1000 Terminal Drive, Arlington Heights, Illinois (Petition at 1). The facility consists of nine storage tanks for jet fuel used at O'Hare Airport and a loading rack. The stormwater runoff from the facility is treated in two, connected API oil-water separators (R. at 6-7).

The primary constituent of the water treated by ARCO is stormwater. After treatment in the separators the water is stored in a retention pond prior to discharge. Discharge occurs only after the retention pond is filled, usually during wet seasons (Id. at 6-8).

The ARCO discharge is to an unnamed tributary to Higgins Creek. It is uncontested that the unnamed tributary has a 7-day, 10-year low flow of zero cfs (Agency Record, Exh. 5 at 1).

The ARCO facility has held three NPDES permits prior to the one in question, the first having been issued in 1974. Those permits contained the following effluent limitations:

<u>Year Issued</u>	<u>Parameter</u>	<u>30 Day Average</u>	<u>Daily Average</u>	<u>Daily Maximum</u>
1974	Oil and Grease		10 mg/l	15 mg/l
1978	Oil, Fats and Grease	15 mg/l		30 mg/l
1983	Oil and Grease	15 mg/l		30 mg/l

ARCO was required to sample monthly and to submit its accumulated discharge monitoring reports every six months (ARCO Exh. 1).

On December 14, 1988, the Agency issued the ARCO NPDES permit No. IL0001775 containing the following effluent limitations:

	<u>30 Day Average</u>	<u>Daily Maximum</u>
Oil and grease	15 mg/l	30 mg/l
Toluene		2.0 mg/l
Xylenes		0.44 mg/l
Benzene		0.005 mg/l
Lead		0.1 mg/l
Total phenols		0.1 mg/l

The permit also requires monitoring for each of the parameters in the form of monthly grab samples (Agency Record, Exh. 1).

ARCO subsequently filed this appeal. On February 2, 1989, the Board issued an order noting that the contested NPDES permit is stayed during the pendency of the challenge of that permit, pursuant to Section 16(b) of the Illinois Administrative Procedure Act. The terms of ARCO's prior permit, issued in 1983, have applied during the pendency of this appeal.

#### CONTESTED PROVISIONS

As stated above, ARCO has appealed the limits and monitoring required in its permit for toluene, xylenes, benzene, lead, and total phenols. Basically, ARCO believes that the limitations and monitoring requirements for these five parameters should not be included in its permit because they bear no relationship to Illinois standards. ARCO questions the limits because, as it states, there has been no change in Illinois regulation which would require such a change from previous permit limitations solely for fats, oil and grease, and that the new requirements are the result of an Agency policy change (R. at 22-3).

ARCO further contests the basis for the limitations chosen by the Agency for inclusion in the permit. As indicated by the record, the Agency permit drafter selected limits from federal drinking water health advisories for toluene and xylenes (Agency Record, Exh. 5 at 4). (There are currently no effluent limits for these parameters in the Board's regulations.) The level imposed was one which assumes a safe lifetime drinking water standard for an adult (See ARCO Exhs. 2 and 3). ARCO notes that these advisories are not legally enforceable standards (ARCO Brief at 6, ARCO Exhs. 2 & 3). For benzene, the Agency selected limits from a proposed federal Maximum Contaminate Level ("MCL"). ARCO again notes that these limits, being proposed federal limits, are not legally enforceable standards (R. at 43). ARCO alleges that for these parameters, the limits imposed are inappropriate to an industrial discharge, and would only apply to a drinking water source (ARCO Brief at 6).

The lead and phenols parameters were chosen from the Board's water quality standards for General Use waters (R. at 43; Agency Record Exh. 5 at 4; 35 Ill. Adm. Code 302.208). ARCO believes that the application of such standards at the "end of the pipe" was improper because 1) the Agency imposed the General Use Standards without any data relating to stream quality, aquatic biota, or stream flow; 2) the Agency failed to provide a mixing zone as contemplated by 35 Ill. Adm. Code 302.102; 3) the Agency failed to consider that the discharge is intermittent with no discharge during dry seasons. ARCO believes there is therefore no justification for imposition of standards different or more strict than the Board's effluent limitations (ARCO Brief at 7).

Finally, ARCO contends that it should not be required to perform expensive monitoring for toluene, xylenes, benzene, lead, and phenols when those substances are not expected to be found in a particular discharge (Id.).

In response, the Agency states that it properly included limits for the contested parameters. The Agency agrees that the list of regulated substances in the permit was the result of an Agency policy change (Agency Brief at 2). Specifically, as stated by Mr. Timothy Kluge, Agency industrial permit manager, the laboratory tests for oil and grease would not necessarily indicate the presence of certain volatile organic compounds found in gasoline and jet fuel, including toluene, xylenes, benzene, lead, and phenols (R. at 54; Agency Brief at 2). The Agency states that the presence of petroleum products (gasoline and jet fuel) in the discharge was established in the permit application:

This facility is a terminal storing and dispensing petroleum products. Jet Fuel is shipped from the facility, via pipeline. Gasoline products (from storage at an adjacent terminal) are dispensed through a truck loading rack at the facility.

Application at Section XII

This was confirmed by ARCO's witness, Mr. Lawrence J. McLaughlin, environmental engineer, who noted that gasoline and jet fuel are unloaded at the facility (R. at 12).

The Agency further contends that it included the proper effluent limitations for the contested parameters. The Agency states that 35 Ill. Adm. Code 309.141 and 304.105 require that NPDES Permit limitations ensure the maintenance of water quality standards. The Agency reasons that since ARCO has not provided the Agency with any information to show that dilution will be available when discharges occur, therefore the effluent from the ARCO facility must meet water quality standards. The General Use Water Quality Standards for lead and phenols found at 302.208 were included in the permit.

Additionally, the Agency states that Section 302.203 provides that waters shall be free from "combinations toxic or harmful to human, animal, plant or aquatic life", and that Section 302.210 states in relevant part that "[a]ny substance toxic to aquatic life shall not exceed one-tenth of the 96-hour median tolerance limit (96-hr. TL<sub>m</sub>) for native fish or essential fish food organisms..." The Agency states that its policy is to impose the strictest category of water quality limits in the absence of additional information from the applicant. The Agency believes that this policy ensures maximum protection to the public and the receiving waters. Therefore the Agency included more stringent limits than the 1/10 96-hr TL<sub>m</sub> for benzene, toluene and xylenes (Agency Brief at 3-4).

In response, ARCO emphasizes that limits imposed for benzene, toluene and xylenes are not water quality based (R. at 39, 41-3), and that the selection of drinking water standards for ARCO's permit limitations is arbitrary (ARCO Reply Brief at 2-3).

### Evaluation

When reviewing an Agency permit decision, the Board must determine whether the application, as submitted to the Agency, demonstrates that no violation of the Environmental Protection Act ("Act"), or Board regulations would occur if the permit were issued. (See, City of East Moline v. Illinois Pollution Control Board, No. 3-88-0788, slip op. at 5, 11 (Ill. App. Ct. 3d Dist., August 31, 1989); Joliet Sand and Gravel v. Illinois Pollution Control Board, 163 Ill. App. 3d 830, 516 N.E.2d 955, 958 (3d Dist. 1987); Ill. Rev. Stat. 1987, ch. 111-1/2, par. 1039(a)). The First District has also stated:

For purposes of review, the imposition of conditions is regarded as a permit denial. . .

The sole question before the Board in review of the Agency's denial of a permit is whether the petitioner

can prove that its permit application as submitted to the Agency establishes that the facility will not cause a violation of the Act. If the Agency has granted the permit with conditions to which the petitioner objects, the petitioner must prove that the conditions are not necessary to accomplish the purposes of the Act and therefore were improperly imposed.

IEPA v. PCB (Alburn),  
118 Ill. App. 3d 772,  
775-6 (1983). (emphasis  
in original)

While ARCO claims that the imposition of limitations and monitoring for the contested parameters is arbitrary, and that it has not been shown that the contested parameters are present in ARCO's effluent, Mr. Kluge testified that all the contested parameters are expected to be components of gasoline, although the volatile organics would probably not be large components of jet fuel (R. at 54). As noted above, it is clear from the record that ARCO's effluent contains both gasoline and jet fuel. ARCO's petition states that the ARCO facility is both a "gasoline loading and jet fuel storage and distribution terminal." (Petition at 1), which was also corroborated by ARCO's witness. It is uncontested that drainage from the loading rack and tank farm areas goes through the oil water separators and is discharged into the retention ponds prior to discharge to the unnamed tributary (R. at 7). Therefore, it is not arbitrary for the Agency to impose limitations and monitoring for toluene, xylenes, benzene, lead, and total phenols, as such requirements are necessary to ensure that no violations of the Act or Board regulations would occur upon issuance of ARCO's NPDES permit.

The issue remains as to whether the imposition of effluent limits based upon water quality limits for lead and phenols, and the drinking water advisories and MCLs for toluene, xylenes, and benzene, are necessary to ensure compliance with the Act and Board regulations. Section 302.210 and 302.203 establish water quality standards for toxic substances. Pursuant to Section 304.105, no effluent shall cause a violation of any applicable water quality standard. These sections, when taken together, provide clear authority for the imposition of an effluent toxicity limit whenever such limit is necessary to ensure compliance with the Board's water quality standard for toxicity. Proper relation of the contested parameters to water quality standards was also noted in the Agency permit transmittal letter:

Your request for substitution of total petroleum hydrocarbon sampling for benzene, xylene and toluene was not granted because of [Agency] policy for discharges from gasoline spills and cleanup. The

concentration of petroleum hydrocarbons cannot be related to water quality criteria or the concentration of organic compounds of concern. Also, an analysis of a representative sample of your discharge was not submitted showing the absence of these organic compounds.

It is reasonable for the Agency to apply General Use Water Quality Standards for lead and total phenols as the effluent limits in ARCO's NPDES permit without a mixing zone when there is little, if any, indication that mixing would occur. There is evidence in the record that the stream has a 7-day, 10-year low flow of zero cfs. Furthermore, as acknowledged in the permit application, the effluent discharges to General Use waters. Therefore, the General Use Standards would apply.

However, the proposed drinking water standards and MCLs are arbitrary as here applied. In no circumstance does the Board, Agency, or any other authority require protection to the stringent levels of drinking water standards where human consumption of water does not occur. The small unnamed tributary to which ARCO discharges is manifestly not a drinking water source; neither is Higgins Creek to which the unnamed tributary is tributary; neither is Willow Creek to which Higgins Creek is tributary; and neither is the Des Plaines River to which Willow Creek is tributary. To nevertheless imply that drinking water standards can be applied in the instant case as penalty for ARCO's failure to expressly state this obvious absence of downstream drinking water supplies is grossly arbitrary.

ARCO is nevertheless required pursuant to 35 Ill. Adm. Code 304.105 to comply with water quality standards which are applicable in the receiving waters. The receiving waters are General Use Waters pursuant to 35 Ill. Adm. Code 302.201. For toxic substances such as at issue here, the applicable General Use Standards are the general prohibition against toxic concentrations found at 35 Ill. Adm. Code 302.203 and the quantitative standard found at 35 Ill. Adm. Code 302.210. The latter standard specifies that concentrations of substances toxic to native fish or essential fish food organisms shall not exceed 1/10 of the 96-hour mean tolerance limit ("96-hr  $TL_m$ ").

The Agency apparently now agrees that it is the 1/10 96-hr  $TL_m$  standard which should be appropriately applied in the instant case, and that it would now issue a permit within which this standard applied (R. at 61). The Board agrees that 1/10 96-hr  $TL_m$  is the appropriate standard. The principal use of the waters involved in the instant case is maintenance of aquatic life, and the standard is designed to protect against toxicity to aquatic life.

Since the Board has found that the 1/10 96-hr  $TL_m$  standard is proper in this instance, it becomes necessary to address some additional concerns raised by ARCO in its brief. ARCO presents concerns regarding how it believes the Agency will apply the 1/10 96-hr  $TL_m$  standard. What ARCO desires amounts to a request for the Board to provide the 1/10 96-hr  $TL_m$  figures, or to direct the Agency on how this standard should be applied. On this matter, the Board must remain silent and remand to the Agency since the Agency has not based the limits on this standard. Even if the Board were inclined to so direct the Agency, there is no evidence in the present record which would allow the Board to make such a determination. Suffice it to state that what the standard requires is clear on its face.

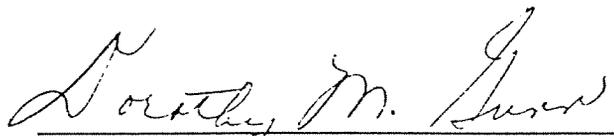
In sum, the Board upholds the Agency imposed permit limitations and monitoring requirements for lead and total phenols, and the monitoring requirements for toluene, xylenes, and benzene. The Board remands that portion of the permit relating to the limitations for toluene, xylenes, and benzene to the Agency for determination of effluent limits in accordance with the water quality standard contained in Section 302.210.

ORDER

The NPDES permit No. IL0001775 issued by the Agency on December 14, 1988 is affirmed in part and remanded in part. The Agency is directed to issue NPDES permit No. IL0001775 applying the limitations for toluene, xylenes, and benzene in accordance with the water quality standards as set forth in 35 Ill. Adm. Code 302.210.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 20th day of December, 1989, by a vote of 7-0.

  
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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board