

ILLINOIS POLLUTION CONTROL BOARD
November 2, 1978

ENVIRONMENTAL PROTECTION AGENCY,)
)
 Complainant,)
)
 v.) PCB 75-475
)
 THOMPSON OIL CO., NORTHRUP OIL CO.)
 and TEXACO INC.,)
)
 Respondents.)

MR. PATRICK CHESLEY, ASSISTANT ATTORNEY GENERAL, APPEARED ON BEHALF OF THE AGENCY;
MR. THOMAS IMMEL; BURDITT, CALKINS AND IMMEL APPEARED ON BEHALF OF RESPONDENT TEXACO, INC.
MR. LEE ZELLE APPEARED ON BEHALF OF RESPONDENTS THOMPSON OIL CO. AND NORTHRUP OIL CO.

OPINION AND ORDER OF THE BOARD (by Mr. Dumelle):

The Environmental Protection Agency (herinafter the Agency) filed its Complaint in this matter on December 15, 1975 alleging that Thompson Oil Company (herinafter Thompson) caused the discharge of contaminants into groundwater and sanitary sewers by allowing gasoline and fuel oil to permeate the ground around its bulk storage facility in Springfield, Illinois in violation of §12(a) and §12(d) of the Act. In an Amended Complaint filed August 2, 1976, the Agency added Texaco, Inc. (hereinafter Texaco) and Northrup Oil Co. (hereinafter Northrup) as Respondents.

There were nine days of hearings held to take evidence in this case: October 24, 25, 26 and 27, 1977, December 19, 20, 21 and 22, 1977, and April 3, 1978.

In its Complaint the Agency alleges that contaminants in the local groundwater and sewers originated from the gasoline and oil bulk storage facility at 2016 Republic Street in Springfield. It is alleged that gasoline spills and leaks permeated the soil, reached the groundwater, and infiltrated the sanitary sewer line causing fumes to enter residential basements.

CHRONOLOGY OF OWNERSHIP BY THE RESPONDENTS

The storage facility consists primarily of horizontal above ground tanks, connected by underground pipes to the pumps at the loading rack for transfer to trucks (R.850). Operation began in 1952 at which time the facility was owned by Texaco and operated

by Harold Jassman (R.40-41). Between June 26, 1972 and April 22, 1974 Thompson operated the facility under a lease and "distributor agreement" from Texaco (R.849,852). Under the terms of the lease, Texaco was responsible for maintenance of the storage tanks and pumps. Under the distributor agreement, Thompson was required to purchase a quantity of gasoline from Texaco and sell Texaco products at several service stations he was operating (R.857,852). Thompson purchased the property and all improvements thereon in April of 1974, and continued to operate the storage facility until approximately April of 1976. At this time Northrup became the owner and operator (R.1174).

EVIDENCE OF CONTAMINATION OF WATERS OF THE STATE
Contamination of Groundwater:

The Agency's allegation of groundwater contamination is based on data obtained from the sampling of eleven monitoring wells constructed on and around the bulk storage facility grounds. Six of these wells were installed in July of 1974 and the remaining five were installed in July of 1975 (R.375). The wells were approximately 6-7 feet deep (R.317-18). Water samples withdrawn from these wells were analyzed for gasoline content by use of a gas chromatograph (R.417). This instrument separates the gaseous components injected into it based on phase stability and mobility, and produces a graph which records the reactions created by ionization of the sample. The graph can then be used to determine what substances are present in a sample and their concentrations (R.418-19). Well #3 is located near the loading rack of the bulk storage facility which is the subject of this proceeding. Test results from this well strongly indicate the presence of gasoline in the groundwater on a number of occasions (Comp. Ex. #8-21). The results in these laboratory reports are expressed in terms of "Hydrocarbons in the range of gasoline". The Board finds that this characterization of the chromatograph results is sufficiently precise to allow the conclusion that gasoline was detected. Data from wells #6 and 11 on adjacent residential property also indicate the presence of gasoline in the groundwater. Well #1 was installed to replace well #6 in July of 1975, after it ceased to function properly. Well #6 is not shown on the chart which indicates the location of wells. (Comp. Ex. 6) Respondents question the validity of the results obtained from well #3 after 1974 due to the sampling method employed by the Agency. It appears that the Agency began to take larger samples from well #3 beginning in January of 1975 in order to allow testing personnel to skim gasoline off the top of the water. This may have produced misleading data regarding the concentration of gasoline in the ground water (R.299). It is also possible that without the increased size of samples the gas chromatograph instrument may have been unable to detect gasoline in the water (R.548-49).

The Board finds it unnecessary to rule on the validity of these results because the data in Comp. Ex. 8-11 clearly establish

the presence of gasoline in the groundwater on five occasions in 1974. Respondents also question the accuracy of characterizing water in the monitoring wells as groundwater, due to the possibility of surface water infiltration. Testimony by the Agency's expert witness, Rauf Pishkin, indicates that surface water could conceivably infiltrate the well shaft by lateral migration at a level below the impermeable bentonite cap. It is his opinion, however, that this is highly unlikely (R.1040-45, 704).

The Board finds that the wells were constructed properly and that the possibility of such infiltration is not serious enough to taint the results of the well samples (R.702-703).

Additional evidence of groundwater contamination can be found in the results of core samples taken from wells #3 and #6 as they were being drilled. The presence of gasoline was detected at nine feet below the surface in both well shafts. (Comp. Ex. 7), indicating that the contaminant had reached the water table (R.811).

Based on the water sample and core sample data the Board finds that there was contamination of groundwater as alleged by the Agency.

Contamination of Sanitary Sewer

Witness John Hurley, a chemist, testified that gasoline would volatilize if it came into contact with sewage water (R.500). Gasoline fumes were detected in the sewer manhole on Republic Street (R.151,356). Kenneth Race, of the Springfield Fire Department, discovered a definite strong odor in some basements in the area (R.356). He testified that fumes from the sewer could enter a basement through the sewer line leading from the street to the building (R.363), in the absence of a proper "trap" on the sewer line. A trap is a "V-shaped segment of piping with fluid in it" (R.363-64) used to inhibit the entry of sewer gas into basements. It appears that these homes may have been built without such traps.

Respondents have contended that sanitary sewers are not "Waters of the State" and therefore cannot be the subject of an allegation of water pollution under the Act (R.14-23). The Board finds as a matter of law that §3(o) of the Act clearly includes sanitary sewers in its definition of "waters". Section 3(o) defines "water" as, "all accumulations of water, surface and underground, natural, and artificial, public, and private, or parts thereof..." The definition in §104 of the Board's Water Pollution Regulations (Chapter 3) excludes sanitary sewers from this definition only used in this chapter". The violation of §12(a) and §12(d) of the Act, alleged in this case are not related to violations of standards contained in the Regulations. Therefore the term "water pollution" as defined in §3(n) and applied in §12(a) and §12(d) of the Act includes contamination of a sanitary sewer. The Board finds, as a matter of fact, that such contamination has occurred in

this case. The question of contamination of the sanitary sewer is separate from the question of injury caused to homeowners which is dealt with below and goes to the "reasonableness" of the contamination. Nevertheless evidence of gasoline vapor in basements indicates the presence of such vapor in the sewer line as well.

EVIDENCE THAT CONTAMINATION ORIGINATED FROM THE BULK STORAGE FACILITY AT 2016 REPUBLIC STREET

Witness Mary Passmor, a nearby resident, testified that she has seen gasoline spilling from hoses and truck during loading operations on the premises and on one occasion in the summer of 1974, she observed fuel oil pouring out of a pipe connected to the storage tank (R.64,65 - 10/24/77). Witness Abe Loudermilk observed leaking pumps at the facility (R.153 - 10/24/77), as did Witness John Snyder (R.348 - 10/25/77). Mr. Loudermilk observed stains on the storage tanks and nearby ground (R.146 - 10/24/77), and in February, 1975 he observed a stain about 30 feet long and 8-12 feet wide near the loading area (R.147 - 10/24/77). Mr. Snyder testified that the soil in this area and also beneath the pumps had the odor of gasoline (R.352 - 10/25/77). Witness John Forneris detected stains and gasoline odor in an excavation of one of the pumps (R.255-57 - 10/25/77).

There is abundant evidence of gasoline spillage and leakage at the Thompson Oil Co. facility. Once introduced into the soil, such gasoline would be expected to reach the water table during periods of rain, or after the soil's absorptive capacity has been reached (R.749).

The logical source of the groundwater contamination demonstrated in this case appears to be the Thompson Oil facility at 2016 Republic Street. The only consistent contamination recorded in test results was in well #3 near the loading rack, and wells #6 and #11 which were at a point "downstream" of Thompson Oil Co. based on the calculated direction of groundwater flow (Comp. Ex. 6). Well #2 and #10 also registered some groundwater contamination (Comp. Ex. 12-16, 19-22). Nevertheless this also may have been caused by oil from the Thompson Oil Co. premises. (R.1025-26). The core samples taken from well #3 indicate that the soil at this location was contaminated with gasoline at least as far as the water table (Comp. Ex. 7, R.734). The core samples taken from well #6 indicate contamination only at a depth of 9 feet, (Comp. Ex. 7) which was below the water table (R.994). Expert witness Rauf Pishkin interpreted the core samples taken together, as an indication that gasoline was carried from the well #3 area to the well #6 area at the top of the water table (R.734). This is consistent with other testimony indicating that gasoline would float on top of the water table, moving with the ground water flow (R.978). The direction of flow would be from well #3 to well #6 (R.324). The possibility that the groundwater contamination observed originated from anywhere but the Thompson Oil Co. facility

appears insignificantly small (R.233). In addition, there is no evidence of gasoline leakage or spillage anywhere else in the area. In light of these facts, the Board finds that groundwater contamination occurring during the years 1974 and 1975 originated from the Thompson Oil Co. bulk storage facility at 2016 Republic Street in Springfield, Illinois.

Since the Board has found this connection, the controversy over the admissibility of explosimeter results and the testimony of Mr. Snyder need not be decided.

It remains to be proven whether this groundwater contamination can be linked to the sanitary sewer contamination, thereby indicating that this also originated from the bulk storage facility. In order for infiltration of the sanitary sewer to have occurred, it must have intersected with the top of the water table during wet weather (R.1087-88). Witness Toby Frevert testified that the sewer is 6 feet 5 inches deep at the manhole on Republic Street (R.1211). Data from nearby well #6 indicate water table depths of 6 feet 8 inches on August 30, 1974 (Comp. Ex. 10), 7 feet 6 inches on August 16, 1974 (Comp. Ex. 9) and 7 feet 10 inches on July 19, 1974 (Comp. Ex. 8). Although the Agency neglected to measure the exact level of the water table during wet weather (R.354-55), the Board finds that it is reasonable to infer that the water table rises three inches during wet weather, in light of the observed fluctuation of 1 foot, two inches within one and a half months (See Compl. Reply Brief at 11). There is evidence that the sewer could have been contaminated by surface runoff entering through the manhole cover (R.356,363). Nevertheless this possibility is unlikely and gasoline odor was detected in the manhole during dry weather as well (R.151,361). The Board finds that contaminated ground water infiltrated the sanitary sewer as per the testimony of Rauf Pishkin (R.914) and that the contamination in both the ground water and the sanitary sewer originated from the Thompson Oil Co. bulk storage facility on Republic Street.

DOES THE CONTAMINATION PROVEN IN THIS CASE CONSTITUTE A VIOLATION OF THE ACT?

§12(a):

In order to have a violation of §12(a) of the act the contamination of waters of the State must be shown to constitute "water pollution" as defined in §3(n). Section 3(n) defines water pollution as "...discharge...as will or is likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety or welfare..."

Testimony of Kenneth Race of the Springfield Fire Dept. indicated a fear that gasoline fumes might cause an explosion in the basements of homes in the area (R.356). The Board finds that creation of a potential fire hazard is harmful to the public safety and welfare. Therefore contamination of the sanitary sewer constitutes water pollution and a violation of §12(a) of the Act.

The City of Springfield does not depend on underground wells for its drinking water (R.753-62,1056-58). The contamination of groundwater by gasoline, apart from sewer infiltration, has not been shown to be a nuisance or danger to public health and safety at the present time. Therefore the Agency has not proven a violation of §12(a) with respect to this contamination.

§12(d) Violation

Testimony in the record indicates that a person desiring to dig a well on his property would be unable to freely drink the water due to the gasoline contamination (R.763). The apparent absence of public or private wells in the Springfield area does not give one the right to allow the introduction of contaminants into the ground water. Section 12(d) of the Act prohibits the depositing of contaminants on the land which create a water pollution hazard. This can include conduct which does not yet amount to a violation of §12(a). Tri County Landfill Co. v. Illinois Pollution Control Board, 41 Ill. App 3d 249, 353 N.E.2d 316, 324 (2d Dist. 1976)). The Board finds that it is a water pollution hazard to have gasoline in contact with the ground water where natural degradation and evaporation are inhibited, and exact prediction of flow is uncertain. There is no reason to believe that it will merely disappear. There is certainly no way of assuring it will do so before finding its way into someone's well or a surface water stream. Section 12(d) is intended to prohibit such "incipient pollution threats before the actual harm has occurred". EPA v. James McHugh Construction Co., PCB 71-291, 4 PCB 511,517 - 5/17/72 (emphasis added). Therefore the Board finds that the contamination of ground water was a violation of §12(d) of the Act.

LIABILITY OF THE THREE INDIVIDUAL RESPONDENTS

Northrup: Northrup was joined as present owner of the bulk storage facility on an allegation of continuing existence of contamination in the soil. The most recent evidence of contamination of soil or water is from October 3, 1975 - before purchase of the premises by Northrup. Witness Pishkin testified that gasoline would remain in the soil for many years and that gasoline may be detected in wells if they were dug now (R.1048-50). Nevertheless, some or all of this gasoline exists bound to soil particles, in which case it will not necessarily ever reach the water table (R.1049-50). The Agency has failed to meet its burden of proof with regard to a §12(d) violation by Northrup. Without more solid proof that water pollution may continue to occur, the Board must dismiss the allegations against Northrup.

Texaco: The record indicates that operations at the bulk storage facility were "clean" before Thompson took over in 1972 (R.53,59, 61). All evidence of leaks and spills and presence of gasoline in soil and ground water is from a point in time after Texaco sold the property to Thompson Oil Co. Nevertheless, based on Witness Pishkin's calculation of travel time for a contaminant in the ground water, gasoline detected in well #6 would have started its

migration during the time when Texaco was lessor of the property (R.905). Texaco contends that a violation of §12(a) of the Act requires scienter and cannot be based on being the lessor of one who causes water pollution. The Board would like to dispel both of these misconceptions. The Act imposes an affirmative duty on a lessor if he is in a potential position to control the activities on the premises. (EPA v. James McHugh Construction Co., PCB 71-291, 4 PCB 511, - 5/17/72). Where such potential exists, there need not be intent or even knowledge of the violation to be held liable. (Meadowlark Farms, Inc. v. Illinois Pollution Control Board, 17 Ill. App. 3d 851, 308 N.E. 2d 829 (5th Dist. 1974); Hindman v. EPA et al., 42 Ill. App 3d 706, 356 N.E.2d 669,672 (5th Dist. 1976). If the water pollution occurred when Texaco owned the property, and Texaco had the potential to control the conduct of its lessor, then Texaco can be liable if it was reasonable for Texaco to have exercised this control (McHugh supra). The Board does not need to decide this issue of fact because the Agency has not met its burden of showing that pollution occurred during Texaco's ownership of the property. Witness Pishkin is a credible expert witness. Nevertheless his estimates of ground water travel time are anything but precise. The range of soil permeability used is very wide (R.928). In general, his margin of error may be several years (See R.939-49, 956-66). In the absence of evidence that the sanitary sewer was contaminated before April 22, 1974, Dr. Pishkin's calculations will not carry the Agency's burden of proof in this matter. It should be noted that Texaco is only alleged to have violated §12(a) and only the sanitary sewer contamination has been found to be a §12(a) violation here.

Thompson: All the evidence in the record of gasoline leaks and spills, and presence of gasoline in the soil and ground water and sanitary sewer relates to Thompson's activities as operator of the bulk storage facility in 1974 and 1975. These activities caused water pollution under §12(a) of the Act and a water pollution hazard under §12(d) of the Act. The Board finds Thompson Oil Co. in violation of both of these provisions.

REASONABLENESS: §33(c) Factors

In making its final determination in this proceeding, the Board must consider the reasonableness of Petitioner's "discharge" of gasoline to the ground water and sanitary sewer, using the criteria set forth in §33(c) of the Act (Incinerator Inc. v. Pollution Control Board, 59 Ill. 2d 290, 319 N.E.2d 794 (1974).

Character and Degree of Injury

Respondent's pollution of the sanitary sewer interfered with the public safety and welfare by creating a risk of fire and explosion in residential basements from gasoline fumes. In mitigation of this violation of §12(a) the Board must weigh the fact that the situation could have been avoided by installation of proper sewer traps in these homes (R.364). Testimony at the hearings indicated

that it is the homeowner's responsibility to install this item which is apparently a standard building requirement at the present time (R.364-65). The affected homes may have been built prior to this requirement. Although one witness did testify that the fumes gave her a headache (R.44), there is no other evidence before us that actual injury was caused.

The degree of injury suffered by Thompson's pollution of the ground water itself is more difficult to characterize. There is no present or contemplated use of the ground water in Springfield because the public water supply is Lake Springfield. There is no evidence that an unwary citizen drank contaminated water from a private well or that an alerted citizen had to pay for installation of a treatment system for such a well. Nevertheless the presence of gasoline in contact with the water table creates the hazard of "water pollution" as defined in the act.

The social and economic value of the bulk storage facility and its relationship to the surrounding area are not really at issue in this case.

Technical Practicability and Economic Reasonableness

Respondents successfully opposed the introduction of evidence on this matter, on the grounds that it was irrelevant to the proceeding and prejudicial for the Board to see. (See 880-887). Under the Incinerator case such information is quite relevant in an enforcement proceeding.

The issue of whether there exists a technologically feasible method for correcting the situation is now moot because Thompson Oil Co. no longer owns the property. The Agency's offer of proof at R.1131-32 indicates that the evidence excluded from the record would really only be relevant against the present owner, Northrup. There has, of course, been no violation proven against Northrup. Therefore there is sufficient evidence in the record pertaining to §33(c) factors to make a final determination in this case.

In summary the Board finds that Thompson Oil Co. has violated §12(a) and §12(d) of the Act. Due to mitigating factors pertaining to the §12(a) violation, no fine will be imposed. For the violation of §12(d) by pollution of groundwater the Board will impose a fine of \$1,000 to aid in the enforcement of the Act. The complaints against Texaco and Northrup are dismissed.

This Opinion constitutes the Board's findings of fact and conclusions of law in this matter.

Mr. James Young abstained.

ORDER

It is the Order of the Pollution Control Board that:

- 1) The allegations in the Complaint against Texaco, Inc. and Northrup Oil Company are dismissed.
- 2) Thompson Oil Company has violated §12(a) and §12(d) of the Act.
- 3) Within 35 days of the date of this order, Thompson Oil Company shall pay the penalty of \$1,000.00, payment to be made by certified check or money order to:

State of Illinois
Fiscal Services Division
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 2nd day of November, 1978 by a vote of 3-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board