

BEFORE THE ENVIRONMENTAL APPEALS BOARD
STATE OF DELAWARE

Appeal of Delaware City)
in the Matter of the Hazardous) No. 88-10
Waste Permit issued to Star)
Enterprises, Inc.)
November 3, 1989)

FINAL ORDER

This matter came before the Environmental Appeals Board on March 14, and June 27, 1989. The following board members were present: Thomas J. Kealy, Chairman, Clifton H. Hubbard, Evelyn Greenwood, and Richard Sames. Jacob Kreshtool, Esq. represented the appellant, Delaware City. Richard D. Allen, Esq. appeared on behalf of the permittee, Star Enterprises, Inc. ("Star") Deputy Attorneys General Robert Kuehl and Jeanne Langdon appeared on behalf of The Department of Natural Resources and Environmental Control ("DNREC"). The Board was advised by Deputy Attorney General Ann Marie Johnson.

SUBJECT OF THE APPEAL

The question presented for appeal was whether Secretary John E. Wilson¹ erred by approving a temporary permit to operate a

¹On May 8, 1989, Edwin H. Clark, II was sworn in as Secretary of the Department of Natural Resources and Environmental Control, replacing Secretary Wilson.

hazardous waste land treatment unit to Star Enterprises, Inc.² Although originally, both Star and Delaware City filed appeals in this matter, Star resolved its differences with DNREC, and withdrew its appeal. Delaware City contends that the permit was contrary to Delaware Law as set out in Chapter 63 of Title 7 of the Delaware Code. Specifically, the appellants assert that:

The Secretary's action unecessarily [sic] exposes Delaware residents to deadly dangerous wastes, and plays Russian roulette with our public drinking water supply, and environment, in a risky experiment which is unnecessary [sic], but which might save the Saudi-Texaco partnership some money.

P.2, tab F, Chronology ("Chron.")

For the reasons stated below, the BOARD unanimously affirms the Secretary.

SUMMARY OF THE EVIDENCE

The Board submitted the Chronology, including the transcript of the permit hearing before the Secretary, as Board Exhibit 1.³ The background of the the permit application is as follows: Star produces petroleum products. It operates a 34-acre land treatment unit ("Unit") for the on-site treatment of organic sludges and miscellaneous organic waste streams generated by the refinery. [Chron. E, p. II-1] Getty Oil Co., a prior owner of the company, also operated an industrial landfill on the site before the

²The original permit was granted to Texaco Refining and Marketing, Inc. Texaco has since become Star Enterprises, Inc.

³Citations to the chronology will be designated as "Chron."

development of the RCRA Hazardous Waste Program. Id. In early 1981, Getty began operation of a hazardous waste land treatment area under interim permit status. Id.

The Federal Government adopted hazardous waste regulations in 1983, which were also adopted by DNREC. Pursuant to these new guidelines, Getty applied for and received a landfill permit. Id. at II-2. The permit for land treatment was put on hold pending development of national guidance by EPA. Id. The Secretary issued an order to the Company, now owned by Texaco, in 1986, ordering that a groundwater monitoring system be developed and implemented, however, because groundwater contamination was detected at the site. Id.

Subsequently, EPA finalized the land treatment guidance, and it was determined that the Texaco permit submitted in 1984 had to be revised. Id. In accordance with EPA requirements, Texaco submitted a new permit application on May 13, 1988 for a Short Term Demonstration for Land Treatment. Id. The permit is in effect until September 28, 1992. Chron. E, p. 3.

The first person to testify for Delaware City, and in his own behalf, was Dr. John Nichol. Dr. Nichol has a Phd. in chemistry, and was trained as an organic chemist. He also is a resident of Delaware City. Dr. Nichol's over-riding concern was about the appropriateness of a land treatment unit for treating hazardous wastes. He felt that the unit would generally fail to meet the requirements of title 8, ch. 63 of the Delaware Code, which defines the treatment of Hazardous Wastes.

Dr. Nichol pointed out that the crude oil that Texaco produces contains many hazardous substances such as "benzene" and "chrysene", which are carcinogens. He further stated that an environmental engineer at Remediation Technologies, ("ReTec"), the consultant employed by Star, also admitted the presence of these substances. [Tr. 73-4]⁴ In his view, the air monitoring system set up currently by DNREC is inadequate to accurately monitor the effects on the air of the material. He was also concerned about the potential for ground water contamination from the unit. Incineration is another option for disposing of this waste, yet, he noted that at the hearing before the Secretary, Star testified that it had not pursued this alternative option. [Tr. 40] He also pointed out that ReTec, the consultant employed by Star would not speculate as to whether the unit was "foolproof." [Tr. 61, 66] He asked that the Board order further land treatment to cease at the site, and that other methods of disposal be explored, including transportation to out-of-state landfills.

On cross, Dr. Nichol admitted that he was not an expert in toxicology, ground water hydrology, epidemiology, or hazardous waste disposal. He also admitted that there were certain naturally occurring contaminants, and that benzene was present in other sources, such as cigarette smoke.

⁴Citations to the transcript of the hearing before the Secretary will be designated as "Tr.".

Paul Jones testified first for DNREC. He explained the history of the land treatment permit. He stressed that the unit may only be operated for 15 months under the permit, after which time Star is required to apply for a final permit. [Chron. E, p. XIII-1,6] At that time, if it is not working properly, DNREC can alter certain requirements.

He additionally explained that there are numerous monitoring requirements under the permit. If a statistically significant increase in contaminants is found via this monitoring, than the additional monitoring requirements in section XIV E(4) k. and l. take effect. Pursuant to these sections, the Secretary must be notified, treatment must cease and desist, and a remediation plan must be developed. On cross, Mr. Jones admitted that Star could remove the wastes from the site, but he stated that he did not know if other facilities accepted refinery wastes.

Next to testify for DNREC was Gary Molchan. Mr. Molchan is the program administrator of the hazardous wastes section. He is Paul Jones' manager, and has had fourteen years of experience in wastes management. He was familiar with the Star permit, and believed it to be the most practical means of controlling the waste management at Star. On cross he testified that he believed that the quarterly reporting requirement was sufficient to provide DNREC the necessary monitoring information.

Star's first witness was Dr. Raymond Loehr of the University of Texas. Dr. Loehr has a Phd. in engineering and has written extensively on land treatment. He explained that land treatment

involved the degradation of wastes over time. There are approximately two hundred systems used in the United States currently. The waste material is applied to the treatment area and plowed into the soil at a depth of about six inches from the surface. He also explained the types of monitoring that were typical in such a unit. On cross, Dr. Loehr admitted that the monitoring would not necessarily identify a violation, and that it was important to keep the area moist, even in a drought.

Ben Genes was Star's next witness. Mr. Genes is a senior engineer at ReTec. His area of expertise is the design of land treatments facilities. He stated that the purpose of the land treatment demonstration is to conduct an analysis on 12 cells of approximately 3 acres each for a total of 34 acres, to determine how successful the Unit will be. The application procedure involves applying wastes to one of the twelve cells each week. He stated that the number of barrels of waste treated is projected to be 480 barrels of oil/acre/year.

Although the area designated is not in a flood plain, he would expect that in the event of a flood, that the dilution of the constituents would be so high, that they wouldn't be detected. A drought would not have an effect on operations, because warm weather is conducive to the degradation process. In his opinion, the system would provide efficient disposal of wastes. On cross, Mr. Genes admitted that he was aware of the imminent hazard order issued by DNREC to Star in July of 1988, and that during a drought, Star would probably have to keep the area moist. Later

testimony indicated that this would not be necessary as the sludge is wet as applied.

Cliff Hersheim testified next for Star. He is the Supervisor for Environmental Health and Safety at Star. In addition to explaining the history of waste management at Star, he explained that there were three ways to generally control waste: (1) waste minimization, (2) recycling waste, (3) waste treatment. Options for waste treatment include land treatment, landfill, surface impoundment, and incineration. In his view, incineration was not a good option because the waste produced was not good material to burn, it requires lots of energy, and there is a limited capacity.

On cross he admitted that in the event that there was a build up of heavy metals in the soil which exceeded the limits established by EPA, that the particular treatment cell would be closed up, or the material would be removed into a landfill.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Hazardous Wastes Management is regulated by the Secretary under title 7, ch. 63 of the Delaware Code. The purposes of this chapter are:

- (1) To protect the public health and safety, the health of organisms and the environment from the effects of the improper, inadequate or unsound management of hazardous wastes;
- (2) To establish a program of regulation over the storage, transportation, treatment and disposal of hazardous wastes; and
- (3) To assure the safe and adequate management of hazardous wastes within this State.

Specifically, section 6307(b) states that:

Beginning 180 days after the effective date of regulations adopted for this purpose, no person shall construct, substantially alter, own or operate any hazardous waste treatment, storage or disposal facility or site, nor shall any person store, treat or dispose of any hazardous waste without first obtaining a permit from the Secretary for such facility, site or activity, except that generators may accumulate hazardous wastes on site without a permit for such periods and upon such conditions as the Secretary may by regulation prescribe.

The Board finds that the Secretary had the authority to issue a temporary permit under chapter 63 to Star to regulate and manage hazardous wastes. The Board further finds that the permit, insofar as it is temporary and for the purposes of gathering information, is adequate to protect the public. There are sufficient monitoring requirements written into the permit to enable DNREC to determine the effects of the unit operation on the water supply. In the event that some migration does occur, the Board is satisfied that the protections drafted into section XIVE(4)K and 1 of the permit [Chron., tab. E, p. XIV-16] are adequate in that they require the immediate cease and desist of activity, and a plan of remediation.

Finally, the Board has weighed all of the evidence, and is not persuaded that the contaminants identified by Delaware City will migrate into the water supply without detection. If they should, there are adequate safeguards in the temporary permit to require that such a situation be remedied. The alternatives to land treatment proposed by Delaware City have operational problems of their own, and there was no persuasive evidence on the record

to suggest that they were either available, or environmentally superior to a land treatment unit.

STATEMENT OF BOARD ACTION

The Board AFFIRMS the Secretary's decision to issue a temporary permit to Star to operate a hazardous wastes treatment facility.

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