

ILLINOIS POLLUTION CONTROL BOARD

April 5, 1973

ENVIRONMENTAL PROTECTION AGENCY,)
)
 Complainant,)
)
 vs.)
)
 VELSICOL CHEMICAL CORPORATION,)
)
 Respondent,) PCB 72-326)
)) Consolidated
 VELSICOL CHEMICAL CORPORATION,) PCB 72-351)
)
 Petitioner,)
)
 vs.)
)
 ENVIRONMENTAL PROTECTION AGENCY,)
)
 Respondent.)

Thomas A. Cengel, Assistant Attorney General for the EPA
 Neil R. Mitchell, Attorney for Velsicol Chemical Corporation

OPINION AND ORDER OF THE BOARD (by Mr. Henss)

Velsicol Chemical Corporation manufactures chemicals, including an insecticide called chlordane, near Marshall, Illinois. The manufacturing plant is located near a branch of East Mill Creek which has received the Velsicol effluent and runoff from the Velsicol land. Water from this branch eventually reaches the Wabash River.

In August 1972 the EPA began a prosecution of Velsicol alleging that the Company had allowed the discharge of chlordane, boron and fluoride to the Creek on November 4, 1971, January 12, 1972 and July 12, 1972 and that this had caused water pollution, a nuisance, and a toxic condition of the Creek. It was also alleged that Velsicol had operated a treatment facility which did not adequately provide for removal of color, odor or turbidity from the effluent. These discharges are alleged to have violated Section 12(a) of the Environmental Protection Act; Rules 1.03(c) and (d), 1.05(d), and 1.08-10(b)(3) of SWB-14; Rule 203(a), (f) and (h) and Rule 403 of Chapter 3, Water Pollution Regulations of Illinois.

Velsicol filed an answer admitting that its discharge contained boron and fluoride in concentrations exceeding those allowed under Chapter 3, Rule 203(f) Pollution Control Board Rules and Regulations. The other allegations were denied.

The Company also requested a variance from those provisions of the Statute and the Regulations which had been cited by the Environmental Protection Agency, until the Company's plan could become operational for the filtration of the effluent and the injection of it to a deep disposal well. In the variance petition it was indicated that the deep well disposal system might become operational around July 31, 1973.

The Agency recommended that the variance petition be denied. It was the EPA position that Velsicol had known for several years that it was in violation and that any hardship at this point in complying with the Regulations was self-imposed.

The parties appeared for a hearing but submitted a Stipulation of Facts in lieu of testimony. No members of the public appeared. We accept the Stipulation and order the prosecution and variance cases consolidated for the purpose of decision.

From the Stipulation it appears that Velsicol has operated the manufacturing plant since 1936. The plant effluent averages 402,000 gallons per day of which 72,000 gallons is alkaline brine--hypochlorite wastes from the manufacture of chlordane. The remaining 330,000 gallons comes from surface drainage, power house and cooling towers, oil-water separator effluent, product storage tanks and wastes from processing units other than chlordane. In 1965 the Company obtained a permit from the Sanitary Water Board to operate a deep well for disposal of the contaminated brine. The deep well was used for that purpose until March 1972. All other process wastes have been treated in a series of lagoons and holding ponds. In March 1972 Velsicol received a permit from the EPA to install and operate a second deep disposal well. Since that time the alkaline brine, hypochlorite wastes have been injected into the second well and the first well has been reserved for backup purposes. The injection zone of the deep well is more than 2400 feet below ground level in an area which contains waters of over 15,000 mg/l total dissolved solids.

In August 1972 soon after this Complaint was filed by the EPA, the Company applied for a permit to install and operate surface facilities for injection of all plant effluent to the second disposal well and for installation of a monitoring well. The facilities were designed to recycle some of the waste water for reuse and to filter out some of the suspended solids and

hydrocarbons prior to injection. It was anticipated that the new facility would cost about \$375,000 and be operational by April 1, 1973, with all effluent into the unnamed branch of the East Mill Creek being stopped by April 15, 1973. The EPA issued a permit for this installation on October 23, 1972.

It was further stipulated that Agency investigators visited the site on the dates charged and observed the Velsicol effluent and the receiving stream, collecting samples at intervals up to 4 miles downstream from the effluent discharge point. They also took a number of photographs which were incorporated into the record. The EPA investigators stated that the effluent had a strong chemical odor, appeared slightly milky in color and contained a noticeable surface oil. The oil was from an overflow of a gasoline type product and the milky color was from an overflow of the lime settling lagoon due to heavy rainfall. On other occasions the effluent was observed to have a light turbidity, a dark brown color and a pungent odor. On all three dates levels of chlordane and chloride in the receiving stream were in concentrations or combinations toxic or harmful to aquatic life. On November 4, 1971 and July 12, 1972 there was also an excessive level of boron in the receiving stream. On July 12, 1972 the level of boron in the stream was 37.5 mg/l, whereas Rule 203(f) provides for a maximum level of 1.0 mg/l. It was agreed that some or all of the boron, chlordane and fluoride in the receiving stream had come from the Velsicol plant effluent.

On January 12, 1972 a biologist employed by the EPA performed a biological survey of the receiving creek to determine the stream environments downstream from the Velsicol discharge. He determined that aquatic life criteria for pH, dissolved oxygen and temperature were adequate to support life at all stations sampled by the biologist. However, no aquatic life was actually observed in these areas of the stream.

Velsicol Chemical Corporation has operated its facilities under the assumption that the effluent and Water Quality Standards of SWB-14 were not applicable until July 1972. The Environmental Protection Agency contends that the Water Quality Standards of SWB-14 have been applicable since the adoption of SWB-14 in 1967. We do not believe that the Sanitary Water Board intended to create a five year vacuum in water quality standards. SWB-14 was effective April 1, 1968. See: Beardstown Sanitary District vs. EPA (PCB 72-232). We find that Velsicol did violate each of the Statutory or Regulatory provisions as charged by the Environmental Protection Agency.

As part of the Stipulation the parties have suggested that this Board order Velsicol Chemical Corporation to cease and desist

from further violations of the Environmental Protection Act and the Rules and Regulations of the Pollution Control Board by taking all steps necessary to promulgate its proposed program including: the installation and operation of all surface facilities for deep well injection by April 1, 1973; the deep well injection of all effluent and land runoff from the Velsicol Chemical Corporation's Marshall, Illinois plant by April 1, 1973 and the posting of a performance bond in the amount of \$150,000 to guarantee performance of the foregoing conditions. The parties state that the determination of the amount of monetary penalty should be left to the Board's discretion.

We note that the deep well method of disposal of wastes continues to arouse some controversy. Serious study of this method of waste disposal does continue. However, the Institute for Environmental Quality in R71-6 indicated that our current regulations adequately cover this subject. Information currently available to us leads us to believe that the Velsicol program is a good one and is a reasonable means of protecting another endangered Illinois stream and the interstate Wabash River. We, therefore, approve of the deep well project as stipulated in this case.

Velsicol's past attempts at some form of control, cooperative attitude and current expenditures of \$375,000 for pollution control all mitigate against the imposition of a large monetary penalty. Based on the facts of this case a monetary penalty in the amount of \$5,000 is appropriate.

ORDER

It is ordered that:

1. Velsicol Chemical Corporation is hereby granted variance from the statutes and regulations enumerated in paragraph 2 of this Opinion until April 15, 1973.
2. After April 15, 1973 Velsicol Chemical Corporation shall cease and desist from the violations found herein by taking all steps necessary to promulgate its proposed program including:
 - a) The installation and operation of all surface facilities for deep well injection by April 15, 1973.
 - b) The deep well injection of all effluent and land runoff from the Velsicol Chemical Corporation's Marshall, Illinois plant by April 15, 1973.

- c) The posting of a performance bond in the amount of \$150,000 for a period of one year in a form satisfactory to the Agency to guarantee performance of this cease and desist Order. The performance bond shall be posted within 35 days of the date of this Order.
3. Velsicol Chemical Corporation shall pay to the State of Illinois the sum of \$5,000 for violations found herein. Penalty payment by certified check or money order payable to the State of Illinois within 35 days shall be made to: 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 was adopted this 5th day of April, 1973 by a vote of 4 to 0.

Christan L. Moffett

