

ILLINOIS POLLUTION CONTROL BOARD
December 14, 1978

ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Complainant,)
)
v.) PCB 78-41
)
CARGILL, INC.,)
a Delaware corporation,)
)
Respondent.)

MS. JUDITH S. GOODIE, ASSISTANT ATTORNEY GENERAL, APPEARED ON BEHALF OF THE COMPLAINANT.

PEDERSEN & HOUPPT, ATTORNEYS AT LAW (MR. THEODORE E. CORNELL III, OF COUNSEL), APPEARED ON BEHALF OF THE RESPONDENT.

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

This matter comes before the Board on the February 8, 1978 Complaint brought by the Illinois Environmental Protection Agency ("Agency"). Count I of the Complaint alleged that the Respondent, by the operation of its resin processing plant, caused or allowed the discharge of odors into the environment which unreasonably interfered with the enjoyment of life and property in violation of Section 9(a) of the Illinois Environmental Protection Act ("Act") from December, 1976 until February 8, 1978. Count II of the Complaint alleged that, during an unknown period of time prior to December, 1976, the Respondent caused or allowed the construction of a reactor in which raw materials are cooked (known as K6), a mixing tank (known as M9) and two polyester resin storage tanks without having applied for or obtained a Construction Permit from the Agency in violation of Rule 103(a) of Chapter 2: Air Pollution Control Regulations. Count III of the Complaint alleged that, from December, 1976 until February 8, 1978, the Respondent caused or allowed the operation of reactor K6, mixing tank M9, and two polyester resin storage tanks without having applied for or received an Operating Permit from the Agency in violation of Rule 103(b) of the Board's Air Pollution Control Regulations. On April 11, 1978, the Respondent filed an Application for Nondisclosure as to Certain Answers Contained in Answers and Objections to Complainant's Interrogatories to Respondent Cargill, Inc. - First Set which pertained to confidential information in

the answers to interrogatory numbers 5, 6, 7, 9, 10, 31, and 32 that constituted trade secrets, secret manufacturing processes, and confidential data which would cause injury to the business of Respondent if disclosed to competitors. On April 14, 1978, the Complainant filed a Response to Respondent's Application for Nondisclosure requesting that the grant of Cargill's Application for Nondisclosure be subject to certain conditions. On April 27, 1978, the Board granted Cargill's Application for Nondisclosure subject to various conditions. On May 4, 1978, the Agency filed a Motion for Leave to File Amendment to Complaint Instantly and an Amendment to Complaint. On May 11, 1978, the Board granted the Agency's request for leave to file an amendment to its Complaint, but ordered the Agency to file a complete Amended Complaint within 14 days. On May 22, 1978, the Agency filed a complete Amended Complaint which characterized an expanded list of equipment as emission sources capable of emitting organic vapors and odors (see: paragraph 8 & 9 of Count II of the Amended Complaint) and alleged the operation of additional items of equipment without the necessary Agency permits (see: paragraph 9 of Count III of the Amended Complaint). Additionally, on May 17, 1978, Cargill, Inc. filed a Motion for Protective Order seeking to protect confidential information from public disclosure during the discovery and hearing stages of this case. On May 24, 1978, the Agency filed its Response to the Motion for Protective Order. On July 6, 1978, the Board extended the protection granted by its April 27, 1978 Order to the discovery and hearing processes in this matter. After various other preliminary motions were filed, the parties filed a Joint Motion for Continuance on August 16, 1978. On August 24, 1978, the Board granted the Joint Motion for Continuance of the hearing in this matter to allow the parties time to work out the details of a proposed settlement. A hearing was held on November 3, 1978. The parties also filed a Stipulation and Proposal for Settlement on November 3, 1978.

The Respondent, Cargill, Inc. ("Cargill"), is a Delaware corporation authorized to do business in Illinois. Cargill's Chemical Products Division operates a resin manufacturing plant (the "plant") at Cottage Avenue and Lake Marian Road in Carpentersville, Kane County, Illinois. The plant is located in an area which is zoned for and contains manufacturing facilities. These facilities include: (1) a second resin processing plant which is located immediately adjacent to, but is unaffiliated with, Cargill, (2) a ready mix cement plant, (3) a paint manufacturing plant, and (4) a newspaper printing plant. Both the resin plant and the paint plant utilize some chemicals which are similar or identical to those utilized by Cargill. (Stipulation, p. 3). The industrial area described is bounded on the north and west by the Fox River, and, on the south, by a residential neighborhood of older single family homes known as Old Carpentersville.

Other residential areas lie to the south, east, and west of the industrial area. Immediately to the southeast of Old Carpentersville is another manufacturing area which contains a sewage treatment plant and two manufacturing plants. These manufacturing plants utilize some chemicals which are similar or identical to those utilized by Cargill. The manufacturing plants have been the subject of odor complaints. (Stipulation, p. 3).

The Respondent's plant operates 24 hours a day, Monday through Friday, and occasionally on Saturday. The plant produces polyester resins and alkyds, amino, copolymer, powder, silicon, urethane and ultraviolet resins. These products are used as the basic components of protective coatings. Applications include coatings for automotive parts, bicycles, printing inks, appliances, aircraft, trucks, prefinished siding, cookware, wood finishes, paper products, house paint and varnishes, sporting equipment, boats and several hundred others. Raw materials used in the production of these resins include phthalic anhydride, maleic anhydride, propylene glycol, styrene, mineral spirits, glycols, soya, benzoic acid, adipic acid, isophthalic acid, isobutyl alcohol, triethanol amine, para formaldehyde, urea, oxalic acid, vinyl toluene, methyl methacrylate, acrylic acid, hexyethacrylate, and ethoxyethacrylate. Of the above-listed materials, the first four are components of polyester resins. (Stipulation, p. 3-4). Raw materials, after being held in storage tanks, are pumped to reactors K1-6 where they are reacted to form the basic resins, which are then transferred to mix tanks M1-9 for adjustment with additional raw materials. The six reactors and nine mix tanks are located in the processing building. Some resin products are then placed in drums or stored in bulk tanks for later shipments via tank trucks. Since January, 1977, other resin products, including polyester resins, have been transferred to storage tanks and then to a second series of mix tanks for further adjustment before drumming or bulk shipping. (Stipulation, p. 4).

Cargill has operated its facility in Carpentersville since 1966. The plant presently employs 89 people, and in 1977 had a payroll of \$981,927.00 . In 1977, Cargill paid \$16,356.80 in local real estate taxes and \$11,155.70 in state personal property taxes. There are a number of emission control devices in use at the Cargill plant at the present time. Three primary fume scrubbers have been installed at a cost of \$20,000.00 each and require \$50.00 per day each in operating expenses. One such scrubber was installed in 1969, and the other two in 1977. In 1976, a secondary oxidizing fume scrubber was connected to the three primary fume scrubbers, as well as the M9 condenser, vacuum pumps, HT-1, and acid tank. This scrubber was installed at the price of \$30,000.00 and its operating costs are \$100.00 per day.

In addition, condensers have been installed on K1-6 and M1-9 from 1969 to 1977. The total cost of these condensers was \$51,000.00 and their operating costs are \$150.00 daily. (Stipulation, p. 4-5).

In 1973, Cargill submitted to the Agency an application for a permit to construct additional equipment at the plant for the production of polyester and other products, and to construct certain additional storage tanks, mix tanks and drumming tanks for polyester products. A Construction Permit for the equipment and emission controls included in that application was granted by the Agency in March of 1974. (Stipulation, p. 5). Several months after the permit was granted, Cargill instituted several changes in the design of the equipment and emission control devices. These changes were instituted without submitting appropriate permit applications to the Agency. Cargill contends that the failure to seek modification of its permits was done through inadvertence. (Stipulation, p. 6). As a result of this inadvertence, the actual equipment and emission controls installed did not correspond exactly to the Construction Permit, in that: (1) A new 8,000 gallon resin reactor known as K6 was built in the existing processing building. The production rate of K6 as built more than doubled the stated production rate of the reactor described in the Construction Permit application and identified therein as K5; (2) A new 17,000 gallon mix tank for the blending of resins known as M9 was built in the existing processing building. The mix tank described in the Construction Permit application, and identified therein as M5, had a capacity of 12,000 gallons; (3) Five new 20,000 gallon polyester storage tanks were installed in a new polyester building. The Construction Permit called for three new 15,000 gallon polyester storage tanks; (4) Four 6,000 gallon polyester mix tanks were installed in the polyester building. The Construction Permit called for three such mix tanks. (5) Four new 1,500 gallon drumming tanks were installed in the polyester building. The Construction Permit called for two 2,000 gallon polyester drumming tanks. Of the four drumming tanks actually built, one is used for polyester resin; (6) Without applying for a Construction Permit, Cargill installed a secondary oxidizing fume scrubber using permanganate at the processing building and connected this scrubber to the primary fume scrubbers controlling emissions from five reactors, as well as the condenser on mix tank M9, certain vacuum pumps, mix tank HT-1, and an acid tank; and (7) The Construction Permit called for the construction of shell and tube condensers on each of the polyester mix tanks in the polyester building, for the stated purpose of condensing styrene vapors. No such condensers were built. However, the polyester mix tanks, the polyester storage tanks, and the drumming tanks are controlled by conservation tubes set at 1/2 ounce p.s.i.g. through which the tanks vent to the atmosphere. (Stipulation, p. 6-7).

It is stipulated that at some time after March, 1974, Cargill caused the construction of reactor K6, mix tank M9, a primary scrubber, a condenser, two polyester storage tanks, one polyester mix tank, two drumming tanks and a secondary oxidizing scrubber without having obtained a Construction Permit for the equipment from the Agency, in violation of Rule 103(a) of the Board's Air Pollution Control Regulations and in violation of Section 9(b) of the Act. (Stipulation, p. 7-8). It is also stipulated that, beginning in January, 1977 and continuing until the present time, Cargill caused the operation of reactor K6, mix tank M9, a primary scrubber, a condenser, five polyester storage tanks, four polyester mix tanks, four drumming tanks and a secondary oxidizing scrubber without having obtained an Operating Permit for the equipment from the Agency in violation of Rule 103(b) of the Chapter 2: Air Pollution Control Regulations and in violation of Section 9(b) of the Act. (Stipulation, p. 8).

The Agency represents that, if a full hearing were held in this matter, it would offer testimony of approximately twenty residents of Carpentersville and Dundee, Illinois. These witnesses would testify, in substance, that since on or about January, 1977 and continuing to the date of such hearing, a specific offensive odor was experienced periodically in and around Carpentersville which was associated with physical discomfort and which interrupted sleep and outdoor activities. Several witnesses would attribute said odor to the Cargill plant. (Stipulation, p. 8). The Agency contends that organic vapors and odors from the plant, particularly from the production and storage of polyester resin, have been emitted into the atmosphere several times per week since January, 1977 in such quantities and of such characteristics and duration as to be injurious to human health and to unreasonably interfere with the enjoyment of life and property of residents of Carpentersville and other nearby communities, in violation of Section 9(a) of the Act. (Stipulation, p. 9).

Cargill represents that, if a full hearing were held in this matter, it would offer testimony of approximately 13 residents of Carpentersville and Dundee, Illinois. These witnesses reside in the same neighborhoods as the Agency's witnesses. The witnesses from Carpentersville would testify, in substance, that they have on occasion noticed an odor from an unknown source which did not bother them. The witnesses from Dundee would testify that they have not noticed odors. (Stipulation, p. 9). Cargill specifically denies that organic vapors and odors from the plant have been emitted into the atmosphere since January, 1977 in such quantities and of such characteristics and duration so as to be injurious to human health and to unreasonably interfere with the enjoyment of life and property of residents of Carpentersville and other nearby

communities, in violation of Section 9(a) of the Act.
(Stipulation, p. 9-10).

The proposed settlement agreement provides that Cargill will:

(1) authorize its consulting engineer to design a catalytic incinerator system for installation on the outlet of the existing secondary fume oxidizing scrubber at the plant. The capacity of the incinerator system will be sufficient to accommodate, in addition to the scrubber outlet, a vent collection system for the tank vents on the polyester building and other equipment vents;

(2) promptly submit applications to the Agency for all required Construction Permits for the incinerator system (The Agency has agreed to expedite processing of these applications);

(3) install the incinerator system within eight months after the issuance of the required Construction Permits;

(4) continue design work on a program for installing carbon adsorption units at the outlet of vents on five polyester storage tanks, four polyester mix tanks (PEMs), one polyester drumming tank, and one styrene storage tank;

(5) submit applications to the Agency for all required Construction Permits for the carbon adsorption units on or before October 1, 1978.* The Agency will expedite processing of these permit applications. Cargill will complete the installation of the carbon adsorption units within 30 days after the issuance of the required Construction Permits;

(6) conduct an odor survey of the incinerator and of the carbon adsorption units described above within 30 days of the completion of the incinerator installation. Cargill will notify the Agency at least seven days in advance of, and Agency personnel will be permitted to observe, all odor survey procedures and results;

(7) submit applications to the Agency for all required

*The record reveals that all the requisite applications have now been received by the Agency and that most of the Construction Permits have already been issued. (Record, p. 3-5).

Operating Permits not previously granted for odor emission sources and odor emission controls at the plant within 30 days after the installation and testing of the emission controls. These applications will include a program for the regular maintenance of all the sources and controls and for keeping records of such maintenance;

(8) complete all odor control measures and permit application submittals provided for in the terms of proposed settlement on or before December 31, 1979 (subject to provisions for extensions of time which are detailed in the Stipulation);

(9) submit monthly progress reports to the Agency; and

(10) pay a stipulated penalty of \$10,000.00 for the permit violations. (Stipulation, p. 10-13).

The parties have also stipulated that the catalytic incinerator system for installation on the outlet of the existing secondary fume oxidizing scrubber at the plant represents state-of-the-art technology for the control of odors. The odor emission control measures provided for in the settlement proposal represent a substantial cost to Cargill and have been arrived at through the research and design work of Cargill's consulting engineers. The parties further agree that the measures proposed are likely to reduce, and possibly eliminate, the odors complained of in this proceeding. It is recognized, however, that the control of odors is not a precise and totally quantifiable science, and that the Agency, in entering this agreement, does not waive any rights or duties assigned to it under the Act. (Stipulation, p. 13-14).

In evaluating this enforcement action and proposed settlement, the Board has taken into consideration all the facts and circumstances in light of the specific criteria delineated in Section 33(c) of the Act. Incinerator, Inc. v. Illinois Pollution Control Board, 59 Ill. 2d 290, 319 N.E. 2d 794 (1974). Accordingly, the Board accepts the Stipulation and Proposal for Settlement and finds that Cargill, Inc. has violated Rule 103(a) and Rule 103(b) of Chapter 2: Air Pollution Control Regulations and Section 9(b) of the Illinois Environmental Protection Act. The Board imposes the stipulated penalty of \$10,000.00 .

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

ORDER

It is the Order of the Illinois Pollution Control Board that:

1. Cargill, Inc. has violated Rule 103(a) and Rule 103(b) of Chapter 2: Air Pollution Control Regulations and Section 9(b) of the Illinois Environmental Protection Act.

2. Within 30 days of the date of this Order, Cargill, Inc. shall pay the stipulated penalty of \$10,000.00 , 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

3. Cargill, Inc. shall comply with all the terms and conditions of the Stipulation and Proposal for Settlement filed November 3, 1978, which is incorporated by reference as if fully set forth herein.

4. All other allegations of violations are hereby dismissed.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 14th day of December, 1978 by a vote of 3-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board