

ILLINOIS POLLUTION CONTROL BOARD
September 5, 1974

ENVIRONMENTAL PROTECTION AGENCY,)
Complainant,)
)
)
v.) PCB 72-466
)
RAIL-TO-WATER TRANSFER COMPANY,)
Respondent.)

Mr. Michael A. Benedetto, Jr. and Mr. Stephen Weiss, attorneys
for Complainant.
Mr. Edward M. White and Mr. Edmund P. Boland, attorneys for
Respondent.

OPINION AND ORDER OF THE BOARD (by Dr. Odell)

On December 1, 1972, the Environmental Protection Agency (Agency) filed a Complaint alleging that Rail-to-Water Transfer Company (RTW) violated Section 9(a) of the Environmental Protection Act (Act) and Rule 3-3.111 of the Rules and Regulations Governing the Control of Air Pollution (Rules and Regulations). Violations were alleged to have begun on November 4, 1971, and to have continued until the time of the filing of the Complaint. No specific dates were alleged. Complainant charged that Respondent violated 9(a) by causing or allowing the discharge of particulates into the environment in sufficient quantities and duration as to be injurious to human, plant or animal life, to health, or to property; or to unreasonably interfere with the enjoyment of life or property. The Agency further charged that Respondent in unloading grain and coal from rail cars, conveying, and loading grain and coal aboard ships exceeded the emission standards of Rule 3-3.111 of the Rules and Regulations.

RTW owns and operates a facility which primarily transfers grain meal (corn gluten and soybean), coal, clay (bentonite) and coke from rail cars to ships at a Calumet River site on East 101st street in Chicago, Illinois. Most operations occur from April to December each year (R-376). The transfer operations occur on a 24-hour basis seven days a week (R-396). Approximately 48 employees work at the facility during the peak summer season (R-542). The corporation grosses approximately \$3,000,000 yearly. The facility is located in an industrial area with a Commonwealth Edison peaking station to its north, American Shipbuilding directly east, and Chicago Block, Marblehead Lime, General Mills, and Dixie Portland south of the RTW facility.

RTW has two loading docks. Each is serviced by a movable gantry. The north dock receives coal, clay, and meal while the south one only handles coal and coke (R-374, 5). In transporting the product from rail car to ship, there are three areas of

potential emission sources:

1. The enclosed unloading area where the material empties out of the rail car and drops into the hoppers where the conveyor belts are located (Phase I).

2. The transfer points where the commodity is transferred from the Phase I conveyors to the highline conveyor, through the tripper, and discharged into the "pan" or top of the discharge spout (Phase II).

3. The loading area where the product descends through the discharge spout into the hold of the vessel (Phase III).

Two sets of train tracks run through the Phase I unloading structure. Each track contains hoppers and conveyors beneath it. As one car is emptied, the next one is moved into place (Resp. Ex. 18 A through J). The product is evacuated from the bottom of the rail cars into the receiving hoppers. The material "exits from the car into receiving hoppers, feeds from the receiving hoppers onto endless conveyor belts and is elevated to various positions to connect with a highline conveyor belt running parallel to the face of our dock north and south. . . . The highline belt is connected to a traveling loading tower, and by means of a belt tripping device the material is removed from the highline, transferred to an intermediate belt on the movable tower which carries the product to a pan, receiving pan, which in turn allows the material to flow by gravity to a telescopic chute; the flow and direction of the material is governed by a 360-degree movable head with a controlling gate for placement into the cargo hold of the vessel" (R-373).

The following table summarizes the total tonnage of coal, coke, meal, and clay loaded by RTW:

Table I (EPA Ex. 14 and 15*)

<u>Material</u>	<u>1970</u> <u>(tons/year)</u>	<u>1971</u> <u>(tons/year)</u>	<u>1972</u> <u>(tons/year)</u>	<u>1973</u> <u>(tons/year)</u>
Coal	6,291,133	5,586,353	5,124,995	4,493,524
Coke	258,345	284,950	389,876	317,837
Meal	73,618	266,173	125,139	152,873
Clay	234,915	175,212	70,155	86,125

* Data for 1973 only through October 31, 1973.

Seven hearings were held in January, 1974 in River Grove and Chicago, Illinois. Respondent raised several jurisdictional objections (R-43), all of which we reject. The issues of sufficient standards under the Act, separation of powers, and the power of the Pollution Control Board (Board) to impose monetary penalties have all been recently affirmatively decided in City of Waukegan v. PCB (57 Ill.2d 170). The appellate court has ruled that the right to jury trial does not apply in proceedings before the Board (see Ford v. PCB [9 Ill. App.3d 711]). Failure to mention specific dates in the Complaint does not violate due process. The Complaint should be construed as a violation of each and every day. Furthermore, because of the ongoing nature of Respondent's activities, failure of witnesses to mention specific dates of interference from Respondent's operation goes more towards the weight given to their evidence than to its admissibility.

Section 9(a)

The evidence establishes a violation of Section 9(a) of the Act. Witnesses for the Complainant established the presence of meal dust on avenue N. This location is approximately 1½ blocks east of the RTW facility (R-1316). A witness testified to being bothered by "grain dust" (R-115) in her house and on her property. She traced it to RTW (R-117). Emissions are worse in the summer (R-118). The material caused her to cough, sneeze, and made her eyes burn (R-121). The particulate is white in color at times but appears gray and yellow at other times (R-127). This testimony was corroborated by another witness, who noticed the dust several times a week in the summer of 1972 (R-148) and traced it to RTW (R-155). The yellow dust was noticed often in the summer of 1972 by another resident of that same neighborhood (R-272), and it came from RTW. This meal dust was observed by another witness as coming from RTW (R-336) and covering the area (R-341). Coal dust was also noticed by this resident; another citizen also noticed coal dust (R-314, 319). Respondent admitted problems with meal dust (R-551, 812, 905).

To decide whether 9(a) has been violated, we must find not only that there has been interference, but also that the interference has been unreasonable. To determine reasonableness, we look to the standards in Section 33(c) of the Act. First, the character and degree of injury has been substantial. It has been long-lasting, persistent, and has clearly impinged upon the living habits of area residents. Second, while the pollution source does have some economic value to the community at large, this factor alone is not enough to justify the kind of interference here experienced by citizens. Third, the location of the pollution source is counter-balanced by citizen priority in inhabiting this area. This issue of priority should not be overstressed, because even an individual who moves into an industrial area can still bring a cause of action for private nuisance under the common law. Fourth, at the time of the interference, control technology was available at reasonable costs. The availability of methods of pollution control is an important factor in establishing a violation. The fact that RTW has installed available equipment within the last few years to limit pollution indicates that abatement could have been under-

taken before 1972 for several emission sources. The Phase I unloading structure with its two baghouses was completed in June, 1972 (R-563). A dust collection system was installed in Phase II by June, 1973 (R-564); coke piles were covered sometime during this period. A cover for the "pan" is now being prepared (R-915). A sleeve arrangement for the telescopic loading spout for Phase III (R-567, 913) is now being investigated. This technology is not sophisticated; most of it was available in 1970, although Respondent may not have considered its utility or importance at that time.

Respondent offered much testimony in defense. First, although delayed, Respondent has made considerable effort to reduce emissions in the last several years. Testimony as to cost indicates a good faith attempt to control pollution. Respondent spent \$70,000 on a water spray system for Phase I in 1970 (R-554, 560). This system was later abandoned. In 1971, over \$190,000 was spent (R-567); in 1972, in excess of \$186,000 was invested in pollution control (R-566, 7); through the end of October, 1973 an additional \$35,000 was spent on equipment (R-560). Most of these amounts were used to control emissions in Phases I and II (R-567). Efforts to achieve greater dust control in Phase III were shown. Respondent hopes to use a sleeve made of nylon-reinforced butyl rubber in 1974 (R-913) for use on self-trimming ships (R-511, 2) which comprise all but 19 of the over 500 ships loaded in 1973 (R-407). However, these 19 tween (double) deck ships all carry meal, the chief pollution problem.

Second, the Respondent attempted to show that much of the pollution affecting the witnesses was from other pollution sources in the area (R-1028 to 1040). However, these pollutants appear to be different from the meal dust reaching the citizens. Also, it seems doubtful that most of the other pollutants can, in fact, reach the neighborhood (R-1109 to 1122; 1332; 1341; 1353). Third, wind conditions at Midway airport for the summer of 1972 were introduced to show that on only a few dates were winds blowing in an easterly direction towards the homes of the citizens (Resp. Ex. 14, 15, 16 and 17). This information is not very probative in that the data indicates wind direction on a daily interval only, at a point 13 miles away from RTW, a facility located near Lake Michigan. However, the presence of other pollution sources in the locality would not preclude RTW's being held in violation. The Act makes clear that any person who causes or allows pollution is liable without regard to the contribution from other nearby pollution sources.

Rule 3-3.111

The testimony fails to establish a violation of Rule 3-3.111, because no tests were conducted at this facility to see how much dust was actually emitted (R-456 to 466). An attorney for the Agency argued that a showing of potential pollution establishes a prima facie case. "The Agency attempted to introduce emission factors taken from AP-42, the "Compilation of Air Pollution Emission Factors", . . . Agency Exhibit 19A . . . to show that the process of unloading, conveying, and loading meal at the RTW facility was in violation of Rule 3-3.111 limits but such evidence was not allowed

into the record by the hearing officer" (Agency brief, page 27). Testimony was offered by both sides regarding this issue. We believe that the hearing officer ruled correctly. Although early Board rulings held that such data alone were sufficient to establish a violation, this position has been overruled in several recent Illinois appellate court cases (Hoffman v. PCB [16 Ill. App.³ 325]; Central Illinois Light Co. v. PCB [17 Ill. App.³ 699]).

RTW has been engaged in extensive pollution control efforts for over two years. Much of the testimony in the record went to the issue of what type of control is feasible at the facility. Parts of this testimony deserve mention; our Order will be better understood if certain facts in the record are made clear regarding the three areas of emission sources.

Phase I

We are generally satisfied that Respondent has made all reasonable efforts to control emissions at Phase I (Resp. Ex. 18c, d, and e; EPA Ex. 17K and M). However, as Resp. Ex. 12 (pages 1 and 4) indicates, fugitive dust is still escaping into the atmosphere when the hopper doors of the railroad cars are initially opened and during the shaker operation. Respondent offered other testimony refuting these findings (Resp. Ex. 18c, d, and e). Respondent's Ex. 12 (page 1) suggests repositioning of the intake nozzles to handle these emissions. A dust problem also exists at the front and rear doorway of the Phase I structure when these doorways are not being plugged by a railroad car (R-711 to 715; EPA Ex. 17I). Fugitive dust moves freely into the atmosphere. Some type of covering or flap needs to be used to block these open doorways.

Phase II

Operations at Phase II contain three distinct sources of emissions. First, where the product drops from the inclined Phase I conveyor on to the highline belt ("product line," R-1077), an enclosed structure evacuated by a baghouse has been built (EPA Ex. 2J, K; R-754 to 756, 1072 to 1079; Resp. Ex. 18K). On October 2, 1973, dust emissions were noted coming from this structure (R-998). Respondent argued that these emissions resulted from the clogging of the baghouse (R-998), and that since that time no dust emissions have occurred (R-1075). EPA Ex. 27E tends to impeach that point of view, although Respondent was unsure when that slide was taken. Phase II was not completed until June, 1973 (R-564). The Agency introduced evidence that the dusty condition is caused by eddy currents (R-1306), which are created when the collected dust is recycled on the conveyor system. The Agency recommended eliminating these emissions by using an "enclosed" system (R-1273, 4, 5; EPA Ex. 29E and F) which would remove the collected particulate from the baghouse and place it on an enclosed section of the highline conveyor (R-1277), thus avoiding pollutant emissions. Some evidence of how such a system might work was introduced (EPA Ex. 29E and F).

The second emission source in Phase II occurs where the material is conveyed from the highline conveyor through the tripper

and down to another conveyor belt which transports the product up the movable gantry into the pan (EPA Ex. 2H and F). EPA Ex. 17B shows the movable gantry with the highline belt on the left. The area below the tripper will be covered to reduce emissions, although the testimony does not state how soon this work would be done (R-760). The inclined conveyor belt which feeds the pan will also be covered (R-758).

The third area, the pan (EPA Ex. 27A), where material is transferred from the conveyor into the top of the discharge spout, will be covered (R-915; Resp. Ex. 13). The Agency introduced testimony that covering alone would not eliminate emissions unless evacuated by a baghouse (R-1304, 5). Emissions from the open pan clearly appear in EPA Ex. 2T.

Phase III

The third emission source occurs when the product enters the hold of the vessel, creating dust. Two types of vessels are loaded at RTW. "Bulkers or self-trimmers are vessels with no horizontal dividers in the hold, although there are several vertical separations of the various holds of the same ship. Tween-deckers, on the other hand, have in addition to the vertical dividers, a horizontal divider which is in effect a deck between the main deck and ship bottom" (Resp. brief, page 12). Respondent's Ex. 18-0 is a view looking down into a tween-decker. The Agency introduced evidence that emissions from self-trimmers could be controlled through the use of a double-tubed loading spout inserted twelve inches into the product pile (R-223; EPA Ex. 6). This kind of device is used at the Cargill Grain Terminal, Seattle, Washington. One tube carries grain to the hold of the self-trimmer while the other tube - operating with a reverse air flow - picks up the dust that is traveling with the grain and carries it back upward into a baghouse (R-224, 5; EPA Ex. 7 and 8). Five such spouts are used at Cargill at a total cost of approximately \$200,000 (R-189).

Respondent challenged the suitability of the double-tubed device in connection with its own facility. First, while the device may be effective for grain, it would not work at RTW where meal, rather than grain, is loaded (R-372). Meal is more dusty than grain (R-245). Particles of meal would be constantly carried up the dust collecting spout, plugging up the device. Respondent introduced evidence showing that the collection spout used by Cargill to load grain frequently plugs up; unplugging the spout creates dust (R-1179; Resp. Ex. 19N). Even when the Cargill device is functioning properly, dust is created (Resp. Ex. 19F, G, and I; (R-1171) contrary to evidence introduced by the Agency. RTW believes that the best method of dust control on self-trimmers is to partially cover the hatch and attach a rubber sleeve to the bottom of its spout to choke-load the meal (R-1192, 3). A sleeve device similar to the one to be tested at RTW in 1974 is pictured in EPA Ex. 2BB, CC, and DD. An Agency witness testified that the use of the sleeve increased dust emissions (R-104), but this testimony was impeached (R-106, 910, 912, 913; EPA Ex. 2W, HH, JJ). However, photographs indicate that some dust problems still exist with the sleeve device (EPA Ex. 2U, X, Y and Z).

Little evidence of methods of dust control for tween-

deckers was submitted by the Complainant. Loading of tween-deckers creates unique problems. In order to fill the hold below the deck, a second conveyor is attached to the end of the spout. This conveyor throws the meal into the corners of the vessel as it comes down the spout. Much dust occurs. The Agency admitted in its brief (page 26) that complete dust control is not possible since the spout cannot be buried. "Relatively effective dust control" could be achieved by placing a hood over this trimmer device (R-230). Attempts to cover the hatch during loading of tween-deckers have proven unsuccessful. Although using transparent covers, the dusty condition so impedes the sunlight that union men refuse to load ships under such conditions. Furthermore, the union argues that to cover the hatch violates the Occupational Safety and Health Act (Resp. Ex. 3).

In summary, we hold that Respondent has violated Section 9(a) of the Act but that insufficient evidence was presented to establish a violation of Rule 3-3.111 of the Rules and Regulations. The factors influencing the amount of our penalty are based on the standards set out in Section 33(c) of the Act and Respondent's tardiness in installing available pollution control equipment.

The evidence is inconclusive on many questions of fact. The parties must continue to work together to try and find reasonable means to abate the pollution. This constitutes the findings of fact and conclusions of law of the Board.

ORDER

IT IS THE ORDER of the Pollution Control Board that:

1. Respondent shall cease and desist from violating Section 9(a) of the Act by April 1, 1975. Prior to time, Respondent shall make all reasonable efforts to reduce pollution emitted from its facility.
2. Respondent shall pay a penalty of \$6,000 for the violations of the Act established in this Opinion. Payment shall be by certified check or money order made payable to the State of Illinois, Fiscal Services Division, Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706. Payment shall be made within 35 days of the adoption of this Order.
3. In connection with Phase I, Respondent shall reposition or install additional intake nozzles on to its present system to capture all practical emissions of fugitive dust, if such corrections or additions have not already been made. Respondent shall also build an apparatus or develop a method to prevent dust from escaping from the front and rear doorways when rail cars are not blocking the doorways. All Phase I changes shall be completed by the 1975 operating season and in no case later than April 1, 1975.
4. In connection with Phase II, Respondent and the Agency shall conduct tests to determine whether the Phase II baghouse prevents all appreciable emissions at the transfer point. If the Agency concludes that substantial emissions routinely occur, the Agency and Respondent shall investigate the practicability of installing an emission control system similar to the one employed

at Cargill, as pictured in EPA Ex. 29E and F. This is not meant to foreclose the parties from investigating other kinds of control devices for the transfer point. The Respondent shall have completely installed covers around the tripper, conveyor belt leading to the pan, and the pan by the 1975 operating season and in no case later than April 1, 1975.

5. In connection with Phase III, Respondent shall report to the Agency within 60 days of the adoption of this Order, its success during the summer of 1974 with the rubber sleeve and hatch covering devices used for loading of self-trimmers. The Agency may enter the premises at reasonable times to verify such results. Apparatus to control dust emissions from loading of tween-deckers shall be installed as it becomes available. If adequate dust emission control is not achieved by April 1, 1975, the Respondent shall submit a report to the Board on efforts to achieve satisfactory dust control for tween-decker loading and, within 30 days thereafter, the Agency shall send their comments on Respondent's report to the Board. Thereafter, the reports and comments shall be filed every six months until the problem at the facility is alleviated.

6. Respondent shall apply for all necessary permits from the Agency by January 1, 1975.

7. Respondent shall submit written reports to the Agency on October 1, 1974, and January 1 and April 1, 1975, on its progress in implementing this Order.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 5th day of September, 1974, by a vote of 4 to 0.


Christan L. Moffett