ILLINOIS POLLUTION CONTROL BOARD
May 17, 1973

| | | |
|---|---|---|
| R. R. DONNELLEY & SONS COMPANY | ) | |
| | ) | |
| | ) | #72-410 |
| v. | ) | |
| | ) | |
| ENVIRONMENTAL PROTECTION AGENCY | ) | |
| | | |
| ENVIRONMENTAL PROTECTION AGENCY | ) | |
| | ) | |
| | ) | |
| v. | ) | #72-472 |
| | ) | |
| R. R. DONNELLEY & SONS COMPANY | ) | |

JAMES W. KISSEL and THOMAS M. McMAHON, OF SIDLEY & AUSTIN, APPEARED ON BEHALF OF R. R. DONNELLEY & SONS COMPANY
RICHARD W. COSBY, ASSISTANT ATTORNEY GENERAL, APPEARED ON BEHALF OF ENVIRONMENTAL PROTECTION AGENCY
OPINION AND ORDER OF THE BOARD (BY SAMUEL T. LAWTON, JR.):

The two above-captioned proceedings were consolidated by Order of the Board on December 12, 1972. #72-410 is a variance petition which was filed on October 18, 1972, amended by a supplemental petition for interim variance filed December 11, 1972 and further amended by an addendum to petition for variance dated January 18, 1973. The end result sought by the foregoing petitions is a variance of the December 31, 1973 compliance date for Rule 205 of the Air Pollution Regulations limiting the emission of organic material to July 30, 1974, with respect to 8 heatset presses located in Donnelley's Calumet plant building. The petitions also sought variance of the procedural requirements of Rule 103, to enable the obtaining of installation permits without compliance with the project completion schedule requirements of Rule 103 (b)(6)(e).

On May 10, 1973, we granted the variance sought with respect to Rule 205 until May 10, 1974, being the maximum period allowed for variance, pursuant to statute, but subject to extension upon a showing of satisfactory progress to July 30, 1974. Variance of the project completion schedule requirements was also granted. This opinion supports the variance allowance heretofore ordered.

On December 4, 1972, in Case #72-472, the Agency filed an enforcement action against Donnelley, alleging that in the operation of its 53 presses located in the 4 plants comprising its Chicago complex at

23rd Street and King Drive, Donnelley emitted particulates in violation of Rule 3-3.111 of the Rules and Regulations Governing the Control of Air Pollution and installed new equipment capable of causing air pollution, in violation of Section 9(b) of the Environmental Protection Act and Section 3-2.110 of the Rules.

We find, and it will be our Order herein contained, that the Agency has failed to establish violation of Rule 3-3.111, but that Donnelley has violated Section 9(b) of the Act and Rule 3-2.110 by installing equipment without a permit.

## THE VARIANCE PROCEEDING

R. R. Donnelley & Sons Company is a commercial printing establishment, whose Chicago facilities consist of four separate plants, the Calumet plant, the South plant, the North plant and the West plant, although since termination of the publication of Life Magazine in December, 1972, the South plant has ceased operation. (Var. R. 38-39). The Chicago facility contains two types of presses, rotogravure and heatset. The variance proceeding relates only to the heatset presses. Afterburners are utilized to abate hydrocarbon emissions on all heatset presses. These afterburners have been installed over the last 23 years, but presently do not meet the standards that will be operative, pursuant to Rule 205 of the Air Pollution Regulations requiring 85% hydrocarbon reduction by December 31, 1973.

Because of the termination of Donnelley's publication of Life Magazine, presses utilized at the South plant are presently inoperative. Donnelley has represented that its heatset presses at all operating locations, except 8 presses located at the Calumet plant building, will be in compliance with Rule 205 by December 31, 1973. The 8 presses located at the Calumet plant will not be in compliance by December 31, 1973, but will be brought into compliance incrementally during the following six months, which will be no later than July of 1974. We have granted a July 30 date to assure compliance. In the event compliance is not achieved by that date, Donnelley has represented that such non-complying presses will not operate. The record indicates that notwithstanding the failure of 8 of the Company's 53 presses to be non-complying by the December 31, 1973 date, an overall 88% heatset press hydrocarbon reduction level will be achieved by said date, and by July of 1974, the reduction level will be 92%. The 8 presses not in compliance by December 31, 1973 will nevertheless have control devices which will achieve a 45% hydrocarbon reduction level until the individual units are complying.

With the suspension of heatpress operation in the South plant, only 30 heatset presses will be operating during the period of this variance. The replaced afterburners, as indicated, will have a 92% efficiency, and by the end of the variance period, a total of 30 new afterburners

will be installed at a total project cost in excess of $2,800,000 (Var. R. 36), Donnelley Exhibit #11 sets forth the installation and compliance dates for all presses involved for which new afterburners are to be installed. Three presses on which the afterburners have already been installed are not listed. Also listed are the 14 South plant presses discontinued as a consequence of the suspension of Life Magazine publication.

The staggered installation program is to enable a continuation of the plant activities during the period that the installation is being implemented. Between 7 and 25 days is required for afterburner installation. Because of the absence of so-called back-up presses, installation on an incremental basis is necessary in order to assure fulfillment of Donnelley's printing commitments. This is particularly critical in view of the periodical nature of Donnelley's publications requiring continuing production to meet specified delivery dates. (Var. R. 23-64).

The testimony bears out Donnelley's contention that it has embarked upon a compliance program that will assure complete compliance within a reasonable period of time, subsequent to the operative date of the hydrocarbon emission regulations. The total plant emissions will be within the required numerical limits on the deadline date, although the individual units will not, in each instance, meet the regulatory standards. We believe the hardship upon Donnelley in being required to conform to the December 31, 1973 date in all respects is disproportionate with the hardship that the community would suffer in permitting the variance requested. We believe that the Company has made a conscientious effort to achieve compliance and by July of 1974, it will be operating well within the limits established by the Regulations.

On the record before the Board, we believe the variances to be warranted.

## THE ENFORCEMENT PROCEEDING

Case #72-472 is an enforcement action brought against Donnelley alleging violation of the particulate regulations found in Rule 3-3.111 of the Rules and Regulations Governing the Control of Air Pollution, and alleging violation of Section 9(b) of the Act and Rule 3-2.110, as a consequence of installing an offset press without an Agency permit. To sustain its contentions of violation of the particulate emission regulations, the Agency introduced calculations based upon purported standard emission factors contained in Figure 524 of AP-40, "Air Pollution Engineering Manual" contained in EPA Ex. 3. Particulate emissions from the plant's operation can result from particulates and dust emanating from the paper stock (Enf. R. 227), the polymerization of solvents in the dryer and afterburner (Enf. R. 244), resin (Enf. R. 245) and ink particles entrained in the dryer exhaust as well as

products of incomplete combustion from the dryer heater. Donnelley contends, based on its calculations, that 74% of the particulates emitted result from combustion of natural gas in the dryers and afterburners used to control hydrocarbons and odor emissions. Agency Exhibit 7 contains the calculated emissions, using various assumptions, including the constituents of the ink mixture, the efficiency of the afterburner (EPA Ex. 7) and the emission factor for particulates from solvent evaporation (EPA Ex. 2).

On the basis of an estimated process rate of 50 pounds per hour, the Agency computed particulate emissions of 0.75 pounds per hour as contrasted with an allowable emission rate of 0.55 pounds per hour (EPA Ex. 7). The most critical assumption used in the Agency calculation is the particulate emission factor, (EPA Ex. 3) contained in Figure 524 from AP-40 above-noted. This exhibit shows the formation of particulates from solvents evaporated in paint baking ovens as a function of the oven temperature. Paint baking ovens are defined as "ovens used to dry or harden surface coatings concurrently with the removal of organic solvents by evaporation" (Pg. 704, EPA Ex. 3). Accordingly, the dryer is an oven in this context. While Exhibit 3 gives an emission factor that varies with temperature, no support for the figure is provided in the section of AP-40 containing the figure and we must conclude that its validity is uncertain. While we have given recognition to the use of standard emission factors, see Environmental Protection Agency v. Lindgren Foundry Company, #70-1, 1 PCB 11, (September 25, 1970), we do not believe Figure 524 and the limited data in support of it contained in AP-40, satisfies these requirements. Cases heretofore allowing the use of standard emission factors have been premised upon AP-42, being the compilation of air pollutant emission factors promulgated by the United States Environmental Protection Agency. Where properly introduced, we have held that this document and the figures therein contained, can be used for the establishing of a prima facie but rebuttable case of violation. As applied to the instant case, AP-42 does not contain emission factors suitable as a basis to substantiate the Agency's position and AP-40 is not a standard emission factor document in the context in which we have heretofore permitted proof of standard emission factors to establish a prima facie case. Figure 524 contained in AP-40, does not provide adequate justification to support its use in an enforcement proceeding of the character here involved. We do not believe that violation of the law can be demonstrated on this limited showing.

Furthermore, even if a prima facie case of violation had been properly established, we believe that such evidence has been adequately rebutted by the stack tests made and introduced into the record by Donnelley. The test was performed in November, 1972 on a press, dryer and afterburner system characterized by Donnelley as having emissions comparable to similar facilities located at its plant. The system is typical in

that it includes a press that prints four colors creating a reasonably high ink consumption rate,a high-speed variety press, an old-type afterburner, a direct flame inpingement radiant cup dryer and the platinum ribbon-type after burner catalyst (Enf. R. 261-262). The results of the stack test are given in Donnelley's Exhibit 3 and indicate particulate emissions of 0.22 pounds per hour. Although the process rate was not known at the time of the test (Enf. R. 151), the process rate for ink and solvent alone was determined to be 254.5 pounds per hour (Respondent's Exhibit 6) for which the allowable particulate emissions in Rule 3-3.111 would be in excess of 1 pound per hour.

Notwithstanding the possibility that different units within Donnelley's plant have varying emission rates, it does not appear likely that a violation would be found based on the substantial difference between the actual and allowable emissions indicated from this test.

Accordingly, it is our finding that the Agency has not established a violation of the particulate regulations as alleged in the complaint.

A stipulation was entered into between the parties in which it is set forth that on or about November 5, 1971, Respondent began physical installation of press D-33 and its afterburner by beginning site preparation work. Subsequent correspondence between the Company and the Agency ensued.On January 26, 1972, an installation permit was received from the City of Chicago. On July 10, 1972, the Environmental Protection Agency denied an installation permit application which had been applied for on June 15, 1972. The press and its afterburner began operation on or about July 17, 1972, at which date no permit had been issued. On November 3, 1972, an operating permit application was filed with the Agency on which no final action had been taken on the date of the stipulation, being March 1, 1973. It appears to be the position of Donnelley that because its installation was initiated prior to the rendition of our opinion in case entitled Environmental Protection Agency v. American Generator Company, #71-329, 3 PCB 373 (January 6, 1972), it was justified in making the installation without an Agency permit on the apparent assumption that Agency permits were not required for Chicago operations until the foregoing opinion was rendered.

It also appears to be the Company's position that the press was not new equipment and that because the old regulations do not contain a limitation on organic material, no permit was required. We cannot accept the Company's position in this respect. As we noted in American Generator, upon the adoption of the Environmental Protection Act in July of 1970, state permits have been required for all new Chicago facilities. What exemption might previously have existed was vitiated by adoption of the Act.

Section 9(b) of the Act requires an Agency permit for the construction or installation of equipment contributing to air pollution or designed to prevent air pollution of any type designated by Board regulations. Rule 3-2.110 requires a permit for installation or construction of new equipment capable of emitting air contaminants into the atmosphere and any new equipment intended for eliminating or controlling emission of air contaminants. The absence of hydrocarbon standards prior to adoption of the new air regulations in no way can be construed as a determination that hydrocarbon emissions do not cause air pollution. We find the record supports the Agency's allegations that the installation of the D-33 press without an Agency permit violated Section 9(b) of the Act and Rule 3-2.110. However, in the context of the present case, we do not believe any useful purpose would be served by the imposition of a penalty. Respondent appears to have made a conscientious effort to determine what the permits requirements were on both a City and State level and while we do not condone the installation without the receipt of the necessary permit, we do recognize that some degree of confusion did exist during this period as to the respective jurisdictions of the City and State, relative to permit authority.

This opinion constitutes the findings of fact and conclusions of law of the Board.

IT IS THE ORDER of the Pollution Control Board that:

1. Violation of Rule 3-3.111 of the Rules and Regulations Governing the Control of Air Pollution has not been established by the record in this proceeding against Respondent, R. R. Donnelley & Sons Company as charged in the complaint, and said Respondent is found not guilty of this violation.

2. Respondent, R. R. Donnelley & Sons Company, is found to have violated Section 9(b) of the Environmental Protection Act and Section 3-2.110 of the Rules and Regulations Governing the Control of Air Pollution, by installing an offset press, D-33, without a permit issued by the Environmental Protection Agency. No penalty is assessed for reasons set forth in the Opinion.

I, Christan Moffett, Clerk of the Pollution Control Board, certify that the above Opinion and Order was adopted on the 17th day of May, 1973, by a vote of 4 to 0.