

ILLINOIS POLLUTION CONTROL BOARD  
July 26, 1973

INTERNATIONAL HARVESTER COMPANY,        )  
  )  
  )        Petitioner,        )  
  )        v.                    )        PCB 72-321  
  )        PCB 73-176  
  )  
ENVIRONMENTAL PROTECTION AGENCY,        )  
  )  
  )        Respondent.        )

Alan I. Becker on behalf of Petitioner;  
James Rubin, Assistant Attorney General, on behalf of Respondent.

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

On April 30, 1973, Petitioner, International Harvester Company, the operator of an integrated steel mill in Chicago, County of Cook, Illinois, filed a Petition requesting variance for the operation of the following facilities in a manner which would otherwise violate the indicated regulations:

- a) For the stacks on #3 battery from Rule 202(b) (opacity) of the Rules and Regulations of the Pollution Control Board (hereinafter PCB Rules).
- b) For the lids on #3 battery from Rule 203(d) (6) (B) (i) (aa) of the PCB Rules (lid replacement within 20 seconds).
- c) For charging on batteries #3 and #4 from Rule 203(d) (6) (B) (i) (bb) of the PCB Rules (installation of automated negative pressure charging or its equivalent by December 31, 1973).
- d) For pushing and quenching on batteries #3 and #4 from Rule 203(d) (6) (B) (i) (bb) of the PCB Rules (installation of enclosed pushing and quenching system or equivalent by December 31, 1974).
- e) For coke oven doors on batteries #3 and #4 from Rule 203(d) (6) (B) (iv) (aa) of the PCB Rules (door leakage opacity limitations).

Although regulations requiring automated negative pressure charging systems and enclosed pushing and quenching systems are not effective until December 31, 1973, and December 31, 1974, respectively, a compliance plan and project completion schedule leading to compliance by the specified date is necessary in order to obtain an operating permit. Therefore, Petitioner also needs a Variance from Rule 104 of the PCB Rules, in order to obtain an operating permit.

Agency investigators visited Petitioner's facility on May 9 and 10, 1973 and on many occasions prior thereto. During the May 9, 1973 inspection, several instances of allegedly faulty coke oven operation were noted. A further inspection was conducted on June 12, 1973.

Petitioner's coke plant consists of two batteries of Wilputte by-product coke ovens. #3 Battery contains 67 ovens installed in 1952 and 1956 with a capacity of 15.6 tons of coal per oven. #4 battery contains 45 ovens installed in 1968, with a capacity of 27.8 tons of coal per oven. Both batteries are charged from larry-cars through topside lids. The lids on #3 Battery are removed and replaced manually by Petitioner's employees. The lids on #4 Battery are removed and replaced by magnetic lid-lifters. #4 Battery is also equipped with a disintegrator-type wet scrubber which, however, has experienced operational difficulties.

The coking process inherently produces large amounts of gases and smoke, 95% of which are allegedly captured by the by-product system and used for various purposes. The gases which are not captured in the by-product plant create the coke oven emission problem. These emissions result from minute imperfections in the seal of the coke-oven door. Additional emissions occur during the pushing operation and some leakage is emitted from the stack of the #3 Battery.

It is apparent from the Petition that Petitioner is well aware of its emissions problem and has already taken substantial steps toward compliance. Also contained in the Petition is a lengthy and detailed description of additional measures Petitioner pledges to take in order to achieve total compliance. It is noted that the Agency is in substantial agreement with the remedial procedures submitted by the Petitioner for this Board's approval and recommends that the several variances requested be granted subject to certain conditions.

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

IT IS THE ORDER of the Pollution Control Board that variances for the equipment enumerated on page 1 of this Opinion be granted for a period of one year from the date of this Order unless otherwise provided, subject to the conditions specified below:

- A) 1) For the stacks on #3 battery from Rule 202(b) of the PCB Rules;
  - 2) For the lids on #3 battery from Rule 203(d)(6)(B)(i)(aa) of the PCB Rules;
  - 3) For charging operations on batteries #3 and #4 from Rule 203(d)(6)(B)(i)(bb) of the PCB Rules until the installation of controls;
  - 4) For pushing and quenching operations on batteries #3 and #4 from Rule 203(d)(6)(B)(ii)(bb) of the PCB Rules;
  - 5) For coke oven doors on batteries #3 and #4 from Rule 203(d)(6)(B)(iv)(aa) of the PCB Rules;
  - 6) For charging, pushing and quenching operations on batteries #3 and #4 from Rule 104 of the PCB Rules to the extent that timely compliance with Part 2 of Chapter 2 of the PCB Rules will not be achieved.
- B) 1) Within 35 days of this Order, Petitioner shall repair the grit arrestor in the coke quench tower and shall operate the tower with an adequate layer of coke on the grit arrestor screen.
  - 2) Within 60 days of this Order, Petitioner shall submit a report to the Agency detailing the operating and maintenance problems with the scrubber on the #4 battery larry car and, if appropriate, set forth a program for the repair, maintenance and operation of this scrubber.
  - 3) Within 60 days of this Order, Petitioner shall inspect and, if necessary, clean, replace and repair goosenecks and caps, liquor flushing nozzles, steam aspirators, and combustion port caps on batteries #3 and #4.
  - 4) One lidman shall be present at all times on #3 battery and #4 battery. If necessary to prevent leakage, lids on both batteries shall be luted.
  - 5) Petitioner shall maintain at all times one man on each side of #4 battery and one man on the coke side of #3 battery to clean doors and jambs. Doors and jambs shall be inspected and, if necessary, cleaned after each push.

- 6) All doors shall be reconditioned at regular intervals. Within 35 days of this Order, Petitioner shall submit to the Agency for its approval a program for the maintenance of all doors on a regular schedule. Such program may involve an outside contractor to do this work on a regular basis.
- 7) Petitioner shall replace lids on charging ports of battery #4 within 20 seconds of withdrawal of the charging sleeve and shall replace lids on charging ports of battery #3 within 20 seconds of withdrawal of the charging sleeve unless prevented by danger to workmen or danger of damage to equipment, in which case lids shall be replaced as soon as possible.
- 8) On September 30, 1973, and at three month intervals thereafter, Petitioner shall report to the Agency on its investigation of pushing emissions controls and its progress in adopting and implementing a pushing emission control program.
- 9) Within 60 days of this Order, Petitioner shall place in effect operating and maintenance work rules for its coke ovens approved by the Agency. Such rules shall provide, among other things, for the presence of at least one lidman on each battery, the completion of charging operations in conformance with subparagraph 7, supra; the inspection and cleaning of doors and jambs after each push, the repair and reconditioning of all doors on a regular basis, the setting and enforcement of coking times to avoid green pushes, the availability to the Agency of coking determinations and actual coking records and the revision of the work rules and resubmission for Agency approval when coke oven practices are changed or when new or modified equipment is installed.
- 10) Within 35 days of this Order, Petitioner shall agree with the Agency on procedures for a study of door leakage.
- 11) Within 35 days of this Order, Petitioner shall agree with the Agency on procedures for a study of controlled coking times to limit pushing emissions.
- 12) Beginning on September 30, 1973, and every three months thereafter, Petitioner shall submit to the Agency a report of its progress in implementing the program covered by the Order of the Board herein.
- 13) Within 35 days of this Order, Petitioner shall furnish a form acceptable to the Agency a bond in the amount of \$50,000 to insure the installation of equipment as set forth in the Order.

I, Christan L. Moffett, Clerk of the Illinois  
Pollution Control Board, certify that the above  
Opinion and Order was adopted by the Board on  
the 26<sup>th</sup> day of July, 1973, by a  
vote of 4 to 0.

Christan L. Moffett