

ILLINOIS POLLUTION CONTROL BOARD
February 14, 1975

INTERCONTINENTAL ALLOYS CORPORATION,)
)
 Petitioner,)
)
 vs.) PCB 74-432
)
ENVIRONMENTAL PROTECTION AGENCY,)
)
 Respondent.)

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

Intercontinental Alloys Corporation owns and operates a facility north of Crest Hill, Will County, Illinois for the manufacture of aluminum alloys. Equipment at this facility includes two gas-fired reverberatory furnaces having a capacity of 85,000 lb. Particulate emissions from the furnaces are not controlled.

Petitioner has filed a Petition for Variance in which relief is sought from Rule 203(a) of the Air Pollution Control Regulations until such time as air pollution control equipment can be installed. Current plans call for the installation of hooding ducts and blowers on furnace #1 by February 28, 1975 and on furnace #2 by September 1, 1975. However, if refractory materials are not available then furnace #2 will not be controlled until January 1, 1976.

In the operation of its furnaces Petitioner charges each furnace with 40,000 to 60,000 lbs. of aluminum scrap every 24 hours. A molten heel of 30,000 lbs. is customarily maintained in each furnace during each melt cycle. Chlorine is used in the process to clean contaminants from the molten metal. Not all melts require a cleaning with chlorine. When the chlorine process is required it is used for approximately 1 hour per day.

Emissions from the furnace vary with the quality of scrap aluminum used. The use of dirty scrap causes a higher emission rate than clean scrap because the dirty scrap is contaminated by oil and paint. Petitioner estimates that emissions from the two furnaces are 10.7 lbs./hr. (based on a process weight rate of 60,000 lbs./day), and computes the allowable particulate emission rate at 7.58 lbs./hr.

The allowable emission rate of 7.58 lbs./hr. appears to have been determined using the equation in Rule 202(b) which is not the applicable Rule in this case. Petitioner states that tables "from the U. S. Environmental Protection Agency" were used to calculate the actual emission rate of 10.75 lbs./hr. Table 7.8-1 of AP-42, Compilation of Air Pollutant Emission Factors, Second Edition, shows an emission factor of 4.3 lbs. particulates per ton of aluminum scrap for an uncontrolled reverberatory furnace. Using this emission factor it can be determined that a process weight rate of 120,000 lbs./day (60 tons) would have to be used in the calculations instead of 60,000 lbs./day to arrive at an emission rate of 10.75 lbs./hr. The total process weight rate for both furnaces was 120,000 lbs. per day and we conclude that total emissions from both furnaces were 10.75 lbs./hr.

The Agency submits the following data:

Emissions during normal melting (23 hrs/day) = 10.7 lbs/hr.
Emissions during chlorination (1 hr/day) = 167 lbs/hr.
Average emissions = 17.2 lbs/hr.
Allowable emissions = 3.0 lbs/hr.

It is unclear from the record how the Agency arrived at an allowable emission rate of 3.0 lbs./hr. Excluding chlorine usage, a source processing 120,000 lbs./day (2.5 tons/hr.) is allowed under Rule 203(a) to emit 4.14 lbs. particulates per hour. Since the record failed to show the amount of chlorine used in the process, we cannot calculate the allowable emission rate at this time. This deficiency does not prevent a decision in this matter, however, since the data that is available shows that Petitioner is in violation of Rule 203(a), which is one of the preliminary requirements for receiving a variance.

In an enforcement case involving these two parties (PCB 74-10) Intercontinental Alloys stipulated that it would install hooding ducts and blowers to collect and incinerate its emissions. Under this Stipulation Petitioner will alter and convert its two furnaces so as to utilize a secret patented process to reduce particulate emissions during chlorination. Information on the process, known as the "Derham Process" has been made available to the Agency on condition that the Agency consider such information confidential.

In its Recommendation the Agency reports that Agency personnel reviewed information on the "Derham Process" and concluded that Petitioner's proposed control program should bring the facility into compliance with Rule 203(a). The Agency also found Petitioner's Project Completion Schedule to be reasonable.

Petitioner's facility is located in a rural area. Complaints about the operation have been received from area residents "from time to time" but there were no objections to the granting of this variance. The environmental impact is not large. The Agency recommends granting this variance subject to certain conditions.

We will grant the variance and shall require a bond in the amount of \$30,000 for the installation of the pollution control equipment.

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

Mr. Henss dissents.

ORDER

It is the Order of the Pollution Control Board that Inter-continental Alloys Corporation be granted variance from Rule 203(a) of the Air Pollution Control Regulations to and including January 1, 1976 for the purpose of installing pollution control equipment at its Crest Hill, Illinois facility. This variance is subject to the following conditions:

1. Petitioner shall apply to the Environmental Protection Agency for construction and operating permits.

2. Petitioner shall submit monthly progress reports to the Agency. Said progress reports shall commence on March 31, 1975 and shall provide details of Petitioner's progress toward achieving compliance with Rule 203(a).

3. Petitioner shall, by March 31, 1975, post a bond in the amount of \$30,000 in a form acceptable to the Environmental Protection Agency, such bond to be forfeited in the event Petitioner fails to install and operate the pollution control equipment. Bond shall be made to: Fiscal Services Division, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706.

4. Within 35 days of the completion of installation of the control equipment for each furnace, Petitioner shall cause a stack test to be conducted on that furnace by an independent testing company. Petitioner shall notify the Agency in writing at least 7 days prior to the testing

and shall allow Agency personnel to witness all tests. Written notification shall be made to: Environmental Protection Agency, Division of Air Pollution Control, Surveillance Section, Naval Armory, East Randolph and the Lake, Chicago, Illinois 60601.

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 February, 1975 by a vote of 3-1.


Christan L. Moffett, Clerk
Illinois Pollution Control Board