

ILLINOIS POLLUTION CONTROL BOARD
October 18, 1973

BENJAMIN HARRIS & COMPANY)
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 v.) PCB 73-215
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 ENVIRONMENTAL PROTECTION AGENCY)
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OPINION OF THE BOARD (by Mr. Dumelle):

This opinion is in support of an order entered August 30, 1973, granting the variance requested with certain conditions.

Petition was filed May 23, 1973 to operate certain equipment at the Harris brass and bronze smelting plant in Chicago Heights. The cupola was not used since December 1971; is controlled by an irrigated cyclone scrubber followed by an afterburner followed by a second irrigated scrubber; and 15 five-day runs are requested in order to reclaim some of the 7,000,000 lbs. of reverberatory slag (worth \$350,000) on the premises.

In addition, variance is requested to operate the rotary furnace, which was shut down in February 1972, to produce certain alloys now manufactured at a loss in the reverberatory furnace.

The petitioner claims extreme financial hardship if the variance is not granted and alleges that financial losses would force it out of business.

The Agency's recommendation was filed July 10, 1973. Public hearings were held in Chicago on July 12 and 13, 1973. The Agency interprets the variance request as being from Rule 2-2.54 and 3-3.111. This firm had been before the Board in PCB 73-49 (March 29, 1973) and a penalty of \$2,500 had been levied for violation of these same Rules.

The Benjamin Harris firm processes some 10,000 tons of scrap each year with its 110-120 employees (R. 14-15). Its slag is worth five cents per lb. because of the 12-15% metallic content (R. 33). The five-day cupola run (15 are requested) would net Harris \$25,000 (R. 39) by converting slag to shot which in turn is made into salable ingots in the reverberatory furnaces.

The desired program by Harris is: (1) to install a brick-lined stack in place of the unlined stack thus making it possible to divert all the cupola emissions to the control equipment; (2) measure the gas flow resulting; and (3) size a baghouse to the gas flow and install it. Upon review of the record we agree on the necessity for having an accurate gas flow figure before ordering a baghouse (R. 82, 87, 183, 192). The difference in dollars between 25,000 cfm and 45,000 cfm is \$80,000.

The consulting engineer for Harris, Mr. Charles Licht, estimated emissions from the cupola at 53 to 112 lbs./hr. (R. 138). The Agency's witness, Mr. Robert Hedden, put the figure at 232 lbs./hr. (R. 233). The 232 lbs./hr. figure results in a total emission over the total variance period of 420,000 lbs. or 210 tons of particulate (R. 233).

The Harris treasurer testified as to the company's losses as being \$71,000 in 1970, \$306,000 in 1971, and \$177,000 in 1972 (R. 195-6) and a possible "break-even" situation in 1973 (R. 197). Further testimony showed the precarious state of the company's loan status (R. 203).

We think that financial hardship is proven. Harris has lost more than a half-million dollars in the past four years and faces a cutoff of credit.


We grant the variance but not for the full period requested. Cupola operation, we feel, is necessary to determine gas flow and to size the baghouse correctly and to earn funds. At the same time, we note the many statements about zinc oxide particulates being under 5 microns and most being below one micron in size (R. 336). These are then respirable and ingestible particles if they are being released. The efficiency of the irrigated cyclones is in question and we do not know on this record the particle sizes exhausted outside the plant nor their quantity.

In the six months of the variance granted we trust that Harris will adequately sample its emissions as to both weight and particle size prior to requesting any extension.

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

Mr. Marder abstains.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 18th day of October, 1973 by a vote of 4-0.


Christan L. Moffett, Clerk
Illinois Pollution Control Board