

ILLINOIS POLLUTION CONTROL BOARD
March 24, 1988

ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Complainant,)
)
v.) PCB 86-161
)
ELIZABETH STREET FOUNDRY, INC.,)
an Illinois Corporation,)
)
Respondent.)

MESSRS GERALD KARR AND JOSEPH PODLEWSKI APPEARED ON BEHALF OF
COMPLAINANT, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY;

MR. RICHARD J. TROY APPEARED ON BEHALF OF RESPONDENT, ELIZABETH
STREET FOUNDRY, INC.

INTERIM OPINION AND ORDER OF THE BOARD (by J.D. Dumelle):

This matter comes before the Board upon Complainant's
October 1, 1986, three count complaint which alleged the
following: Respondent operated its facility without required
operating permits in violation of Section 9(b) of the
Environmental Protection Act (Act) and 35 Ill. Adm. Code 201.144;
Respondent's facility caused emissions in excess of maximum
allowable rates in violation of Section 9(a) of the Act and 35
Ill. Adm. Code 201.144 and 212.321; and that Respondent has
violated this Board's Order of April 17, 1973 in PCB 72-468.
Respondent failed to answer the complaint; therefore, pursuant to
35 Ill. Adm. Code 103.122(d), all material allegations of the
complaint are denied. Respondent filed interrogatories on May 7,
1987, requesting Complainant to explain the emission calculations
referred to in Count II and also requesting an explanation as to
why Complainant's calculations invoked the use of "new process
sources," as opposed to "existing process sources." Complainant
responded on May 22, 1987. Hearings were held on May 26, 1987
and July 27, 1987.

BACKGROUND

Respondent, an Illinois Corporation, is a grey iron foundry
located at 5838 S. Racine Avenue, Chicago, Cook County,
Illinois. The foundry has been in operation for at least forty-
one (41) years, has an administrative staff of three (3) and
thirty-one (31) employees. The foundry is currently experiencing
difficult times; most employees work only 25-30 hours per week.

However, Respondent has experienced both good and bad times during the last 15 years. R. 157.

The foundry operation produces repair parts for machine tool (R. 104, 156) by use of a cupola stack furnace. R. 92. Basically the furnace operates as follows: The furnace is filled with coke and metallic materials. Air is blown into the lower part which ignites the coke to a temperature of 3300 F and melts the material. Molten iron is tapped out at the bottom and slag is tapped out via a different exit. The iron is then poured into molds for later use. R. 93. The overall operation is antiquated, cupola furnaces operating essentially the same since 600 B.C. R. 99. The equipment and operation at Respondent's foundry has been the same for at least twenty (20) years -- except for an afterburner which was installed several years ago pursuant to this Board's Order in PCB 72-468. R. 101.

On June 14, 1973, the Board accepted Respondent's proposal to install an afterburner as part of a compliance plan. The time limit for installing this afterburner was initially set at October 1, 1973, but was later extended until January 15, 1974, in PCB 74-200.

COUNT I

In Count I, Complainant alleges that Respondent has operated its facility since December 1, 1972, without required operating permits. This, it is alleged, constitutes a violation of Section 9(b) of the Act and 35 Ill. Adm. Code 201.144.

Pursuant to 35 Ill. Adm. Code 102.122(d), Respondent's failure to answer the complaint serves as a denial of all material allegations. However, by its attorney (R. 6, 167) and by the principal owner and operator, Mr. James B. Troy (R. 153), Respondent has admitted and indicated that it has operated without the required operating permit(s). Additionally, Complainant elicited competent, credible and independent testimony concerning Respondent's lack of required operating permits. R. 13, Complainant's Ex. #1.

Ill. Rev. Stat, 1987, ch 111 1/2 par 1009(b) [Section 9(b)] of the Act states as follows:

No person shall:

"... operate any equipment (or) facility
... capable of causing or contributing
to air pollution ... without a permit
granted by the Agency ..."

By its operation of a cuploa furnace, with stacks that exhaust to the atmosphere, respondent is required to possesses a

valid operating permit issued by the IEPA. Respondents lack of such permit constitutes a violation of Section 9(b) of the Act.

Likewise 35 Ill. Adm. Code 201.144 states as follows:

"No person shall cause or allow the operation of any existing emission source without first obtaining an operating permit from the Agency ..."

By its operation of a cupola furnace with stacks that exhaust to the atmosphere, Respondent operates an emission source. Respondent's failure to procure the required operating permit constitutes a violation of 35 Ill. Adm. Code 201.144.

COUNT II

Count II alleged that Respondent operated its facility in violation of air emission regulations thereby constituting a violation of Section 9(a) of the Act [Ill. Rev. Stat. 1987, ch 111 1/2 par 1009(a)] and 35 Ill. Adm. Code 212.321. Section 212.321 is used to calculate maximum emissions from new process emission sources according to the following formula:

$$E = A[P]^B$$

where: P = process weight rate
E = allowable emission rate
A = 1.214 (metric) or 2.54 (english)
B = 0.534 (metric) or 0.534 (english)

Utilizing this formula Complainant's witness, Agency permit analyst Anthony Telford, testified that the allowable rate of emissions was 5.21 lbs/hr.. The process weight rate [P] used was 7668 lb/hr. or 3.83 tons/hr. This data was obtained from Respondent via earlier data submissions. R. 55.

By use of AP-42 standard emission factors, Mr. Telford calculated actual emissions within the range of 19.17 - 65.18 lbs/hr.. Both of these emission rates are in excess of the maximum allowable rate calculated pursuant to Section 212.321 (5.21 lbs/hr). supra.

Respondent, however, disagrees arguing that it is not a 'new' process emission source; that an incorrect process weight rate was used; and that improper AP-42 emission factors were used.

Respondent claims that it falls under 35 Ill. Adm. Code 212.456 which allows a higher maximum emission rate for certain small foundries. It should be noted that Section 212.456 only applies under certain circumstances.

Notwithstanding the disagreement, the maximum allowed emission rate for Respondent is determined by one of the following sections from 35 Ill. Adm. Code: 212.321, New Emission Sources; 212.322, Existing Emission Sources; or 212.456 Certain Small Foundries (exception). These sections provide different maximum emission rates depending upon the size and age of the equipment.

Thus, without prejudging which of the particulate emission sections is applicable to this Respondent, and without adopting Respondent's assertions that the process weight rate should be 1.1 tons/hr (versus 3.834), the possibilities of maximum emission rates are as follows:

		Process weight rate = 3.834 ton/hr	Process weight rate = 1.1 ton/hr
Section			
212.321	Max. Emissions =	5.21 lbs/hr	2.67 lbs/hr
212.322	Max. Emissions =	10.09 lbs/hr	4.37 lbs/hr
212.456	Max. Emissions =	13.86 lbs/hr	5.03 lbs/hr

The maximum allowable emission rate for Respondent's facility must be one of the above calculated values.

In determining which of the above calculations is applicable, the nature of Respondent's operation will be determinative. The Board finds Respondent to be a 'batch' or intermittent operation -- not a continuous operation as argued by Complainant. The testimony is clear that the operation must be started and stopped and restarted. Different orders require a complete cycle, and the cupola is turned off each night and restarted the next day as necessary.

Additionally, Respondent has testified that a mistaken process weight rate of 3.834 tons/hr was initially used: The actual and correct process weight rate is 1.1 ton/hr. Mr. James B. Troy, owner and operator of Elizabeth Street Foundry, explained why Respondent, which was the original source of the data, initially provided incorrect data:

"In Foundry parlance, when you say how much are you melting ... it only pertains to the rate at which iron is actually melting. It does not take in the fact the number of hours it takes us to get to that point ... but in reporting to them, (IEPA) we were using our language not their own. And examination of the statutes or rules finds that when we

begin to look at it, and begin to put it in language, to understand the language you speak, that our process weight rate is something quite different." R. p. 150.

Agency witnesses, Mr. Telford, stated that he possessed no independent knowledge of the operations and the process weight rate value he used was the value previously provided by Respondent. Respondent's explanation of the discrepancy is reasonable in the absence of contradictory evidence.

The Board accepts Respondent's explanation of process weight rate. Respondent has satisfactorily explained that the rate originally given to the Agency was an error, caused by inconsistencies between Foundry parlance and engineering language. Mr. Troy is the person best qualified to know, explain and relate the process weight rate; also Mr. Spengler's testimony corroborated Mr. Troy's explanation.

Because the Board finds that Respondent's process weight rate is 1.1 tons/hr, the range of maximum allowable emission rates are:

2.67 lbs/hr [per 212.321] or
4.37 lbs/hr [per 212.322] or
5.03 lbs/hr [per 212.456].

35 Ill. Adm. Code 212.465 does not apply to Respondent; because, according to the testimony, Elizabeth Street Foundry did not comply with the limitations set forth in 212.465(c)(3). Respondent has argued that the filing of PCB 72-468 triggers Section 212.465 status. It does not. PCB 72-468 was an enforcement action [not a variance] seeking to restrain Respondent from (alleged) emission violations. PCB 72-468 was filed on December 1, 1972 -- many months after the April 14, 1972, deadline. Additionally, and most significantly, PCB 72-468 was not a variance action as required by Section 212.465. Section 212.465 does not govern this Respondent.

It is true that in PCB 74-200 this Board granted Respondent an additional 3 1/2 months [until January 15, 1974] to install an afterburner as mandated by Board Order in PCB 72-468 -- but this action was initiated after the April 14, 1972, deadline.

For the foregoing reasons the Board finds that 35 Ill. Adm. Code 212.465 does not apply to Respondent. Likewise, 35 Ill. Adm. Code 212.322 does not apply.

Appendix C of Section 212, Past Compliance Dates States:
Rule 203(c):

Except as otherwise provided in Rule 203, every existing process emission source which was not in compliance with Rule 203(b) (now Rule 212.322), as of April 14, 1972, was required to comply with Rule 203(a) (now Rule 212.321), unless both of the following conditions were met:

- a) The source was in compliance, as of April 14, 1972, with the terms and conditions of a variance granted by the Board, or, by June 13, 1972, the source was the subject of a variance petition which was filed with the Board, which variance was subsequently granted; and,
- b) As of April 14, 1972, construction was commenced on equipment or modifications sufficient to achieve compliance with Rule 203(b).

Neither of these conditions was ever met by Elizabeth Street Foundry nor was it in compliance on the compliance date; thus, because Section 212.322 is inapplicable, Section 212.321 [or former Rule 203(a)] is the regulation which governs this Respondent.

35 Ill. Adm. Code 212.321, New Process Sources, is the regulation applicable to Respondent. Pursuant to the earlier calculations, Section 212.321 sets maximum emission limitations at 2.67 lbs/hr. Emissions in excess of this amount constitute a substantive violation(s) of Board regulations. Respondent's own testimony and evidence indicates emissions in the amount of at least 4.95 lbs/hr. R. Ex. 6. Thus Respondent is in violation of the maximum emission limitations for this facility.

There is one matter of procedure which should properly be addressed at this time. Counsel for Respondent has raised the issue of the evidentiary effect of the Agency's establishing its prima facie case in an enforcement proceeding. It has been argued that the burdens of proof and persuasion must necessarily fall upon the Agency. This is exactly true. It has also been argued that the Agency must conduct its own stack test in order to prove an emission limitation violation. This is incorrect.

35 Ill. Adm. Code(s) 212.321, 212.322 are properly promulgated substantive regulations containing formulas for calculating maximum emissions for certain facilities. Upon the Agency's production of an expert, who identifies the regulation (alleged to have been violated) and explains his or her analysis and calculations, then the Agency has established its prima facie

case of violation(s). This assumes, however, that there is no apparent arithmetic error in the calculation. This Board has previously held that proof of a violation may be based on the use of emission factors and calculations IEPA v. Lindgren Foundry, Co., PCB 70-1, 1 PCB 11 (September 25, 1970).

Here, as in the instant case, when the Agency has established a prima facie case this creates a rebuttable presumption of violation. A Respondent may introduce conflicting evidence, opposing experts, explain mistakes or employ any other proper defense; but Respondent must introduce sufficient evidence to rebut the presumption of violation. The Agency is not required to conduct an independent stack test.

The maximum emission rate for Elizabeth Street Foundry, is calculated by use of the same equations used by the permit analyst. Utilizing the corrected process weight rate according to the formula results in a maximum emission rate of 2.67 lbs/hr. Respondent's actual emissions are at least 4.95 lbs/hr.

The Board finds Respondent in violation of the emission limitations set forth at 35 Ill. Adm. Code 212.321.

Count III

Count III of the complaint alleges that Respondent violated this Board's Order of April 17, 1973, by failing to conduct a stack test as ordered.

In PCB 72-468 this Board held that Respondent violated emission limitations. At that time, in reviewing Respondent's defense that its facility was unique and therefore calculated emission factors were inappropriate, the Board stated as follows:

"The trouble is that we do not know how much (reduction of emissions) is being achieved and in view of the absence of any abatement equipment ... we are justified in assuming that the unabated emissions (will) continue ... Respondent shall submit a program of compliance on the basis of tests (including) the equipment it proposes to install to achieve compliance. PCB 72-468, April 17, 1973."

In the accompanying Order this Board held as follows:

"... Respondent shall submit a program of compliance on the basis of tests demonstrating the extent of its pollutional discharge and the equipment it proposes to install to achieve compliance."

This Board's Orders of June 14, 1973, July 19, 1973 and June 20, 1974 [in PCB 74-200] all required Respondent to submit to a stack test, by which actual emissions would be determined. But this was never done.

During testimony, Mr. James B. Troy, admitted that a stack test was never performed. R. 140.

Thus, the Board finds that Respondent has violated this Board's Orders of April 7, June 14 and July 19, 1973, [in PCB 72-468] and June 20, 1974 [in PCB 74-200].

Penalties

Pursuant to Ill. Rev. Stat. 1986, ch. 111 1/2 par. 1033(c) this Board must assess all facts and circumstances bearing upon the reasonableness of the emissions, including but not limited to:

1. the character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people;
2. the social and economic value of the pollution source;
3. the suitability or unsuitability of the pollution source to the area in which it is located, including the question of priority of location in the area involved; and
4. the technical practicability and economic reasonableness of reducing or eliminating the emissions, discharges or deposits resulting from such pollution source.

The Agency presented no evidence regarding the degree of injury or health problems caused by emissions from Respondent's facility. Additionally, there was no evidence concerning interference with the general welfare of the area or damage to nearby properties.

Conversely, the evidence indicates that Respondent's facility serves an important function in the neighborhood. Respondent's facility employs approximately 35 people. Currently, times are poor and the staff works only 20-30 hours per week. Some of the employees are skilled, but most are

laboring jobs providing a decent income to unskilled workers. The Board finds that Respondent's facility also serves an important social function beyond the immediate neighborhood, but that value is diminished when respondent does not comply with the law.

Foundries of this sort, while old, are an important source of parts in industry. Although it is true that Illinois has lost many manufacturing jobs in the last decade, it is also true that the area has begun to emerge from its decade-long 'shake-out'. Manufacturers need parts for construction and plant maintenance and improvements. Obviously there is great social and economic utility in having properly operated nearby suppliers such as Elizabeth Street Foundry could be.

The Board also finds that both sides have failed to introduce evidence regarding the suitability of Respondent's facility to the surrounding area. In PCB 72-468 there was some mention of Respondent's being designated a non conforming use, but no such evidence has been introduced in this record.

The Agency introduced no evidence concerning the technical practicality and economic reasonableness of reducing or eliminating the emissions. Respondent, however, introduced evidence and exhibits regarding its fiscal status, which is not good. Mr. Troy, owner and operator of Elizabeth Street Foundry, testified that the facility was not in good financial shape; and that Respondent could not afford to conduct a stack test [costing \$50-70,000] or install a bag-house [cost \$250-300,000]. From the evidence introduced, the Board is persuaded that this is true

Respondent's facility is marginal, at best. It has operated at a loss and simply cannot afford to totally finance a stack test, much less state-of-the-art pollution abatement equipment. The Board has limited options available to it in imposing compliance conditions in an enforcement setting. The Board also points out that, without a stack test, it is difficult, at best, to ascertain the true level of Respondents emissions.

On balance, at this time the Board will issue an interim order requiring Respondent to investigate the potential for financial assistance for the stack test as well as the pollution abatement equipment.

ORDER

The Board finds Respondent, Elizabeth Street Foundry in violation of Ill. Rev. Stat. ch 111 1/2 par. 1009(b) and 35 Ill. Adm. Code 201.141 and 201.144 in that it operated its facility since December 1, 1972 without required operating permits. The Board also finds Respondent in violation of Ill. Rev. Stat. ch 111 1/2 par. 1009(a) and 35 Ill. Adm. Code 212.321 in that

Respondent's air emissions are and were in excess of the maximum allowed for that facility. Finally, the Board finds Respondent in violation of Ill. Rev. Stat. ch 111 1/2 par 1042(a) for its failure to obey this Board's Orders of April 17, June 14, July 19, 1973 [in PCB 72-468] and this Board's Order of July 20, 1974 [in PCB 74-200].

Rather than set forth in a final order the amount of any penalties or other conditions to be imposed for Respondent's above noted violations of the Act, the Board, at this time, hereby orders the following:

1. Respondent shall contact:

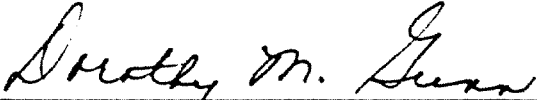
Mr. Harry Pestine
Senior Economic Development and Retention Specialist
c/o Illinois Department of Commerce and
Community Affairs
100 W. Randolph - 3-400
Chicago, IL 60601

(312) 917-3131

2. In consultation with the Agency, Respondent shall discuss with Mr. Pestine or other appropriate person in the Department the availability of Governmental Assistance for conducting a stack test; and assistance in obtaining or financing the purchase of pollution control equipment, including plant modifications which might obviate the need for pollution control equipment, etc.; and information detailing whether Respondent is located in an enterprise zone; etc.
3. Respondent shall report back to this Board and the Agency no later than August 1, 1988 concerning the substance of discussions with Mr. Pestine and/or others regarding the above.
4. The Board shall retain jurisdiction over this matter.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 24th day of March, 1988 by a vote of 6-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board