

ILLINOIS POLLUTION CONTROL BOARD
June 25, 1981

GRANITE CITY STEEL DIVISION OF NATIONAL)
STEEL CORPORATION,)
)
) Petitioner,)
)
) v.) PCB 81-44
)
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,)
)
) Respondent.)

MR. RANDALL ROBERTSON, Lueders, Robertson & Konzen, appeared on behalf of Petitioner;

MR. ROBERT C. SHARPE, Senior Air Attorney, Enforcement Programs, appeared on behalf of Respondent.

OPINION AND ORDER OF THE BOARD (by I. Goodman):

On March 19, 1981 Petitioner filed a petition for variance from Rule 203(d)(5)(B)(iii) of Chapter 2: Air Pollution Control Rules and Regulations for a period of approximately two years. Respondent's Recommendation filed on April 10, 1981 supports grant of variance.

Rule 203(d)(5)(B)(iii), which states that Rules 202 and 203(a), (b) and (c) shall not apply to byproduct coke plants, specifies that all pushing systems are to be equipped with particulate matter control equipment designed to capture at least 90% of the particulate emissions. The equipment is to be maintained and operated so as to achieve the design efficiency. The rule does not require particular types of pushing system controls.

The petition states that while Battery "B" is undergoing reconstruction for the next 15 months, at a cost of \$42 million and employing some 200 construction personnel, it will not always be possible to employ the required particulate controls on the pushing system of recently reconstructed Battery "A". Thus, without grant of variance, Petitioner alleges, the reconstruction of Battery "B" will cause a violation of Rule 203(d)(5)(B)(iii) because the use of the present control equipment on the pushing operations of Battery "A" unavoidably interferes with the construction of Battery "B" during certain phases of the construction. Petitioner proposes to use its enclosed control equipment at all times, but to leave it unenclosed during the times of interference with construction. Hearing was held, upon receipt of an objection to grant of variance, on June 4, 1981. At hearing representatives of several labor and community organizations testified in support of variance. No one at hearing objected to grant of variance.

Petitioner operates an integrated steel manufacturing facility in Granite City, Madison County, Illinois which employs approximately 4,400 persons. Granite City has a population of about 40,000. The nearest residential land to the structure housing Petitioner's byproduct coke oven operations is located 1,000 feet away. Granite City, platted in 1893, was planned by the initial owners of Petitioner as a place to locate their facility in proximity to residential structures for the employees who were necessary to the manufacturing operations.

Petitioner's byproduct coke oven operations begin with the production of coke by heating coal in three batteries containing up to 61 coke ovens each. Coal is heated, after being charged into the top of the coke oven, via the application of the oven heat through the oven flues. While heating, the coal gives off gases and volatile materials and is reduced to carbon and ash, or coke; this process is known as the "coking" of coal. The coke is then transferred to a pushing system. At this point emissions of particulate matter occur. During normal operations, Petitioner maintains adequate controls on the pushing system, e.g., a railcar-like vehicle with appendages allowing car enclosure, which prevents the majority of the particulates from being emitted. The coke is then transported along a track located parallel to each coke oven battery to a quench tower. The quenched coke is charged into blast furnaces, along with limestone and iron ore, to produce molten iron. Coking operations occur all day long and during every day of the week. Petitioner's three batteries ("A," "B," and "C") produce daily about 2,500 tons of coke, for which some 3,500 tons of coal are needed, three-fourths of which is mined in this state.

Although the hot coked coal from Battery "A" is presently loaded onto enclosed traveling receiving cars (the "GCS/PCS" pushing system emission control methodology), these cars are of such length that the enclosure apparatus projects into the construction site of Battery "B" at the point of loading of the nearest 18 ovens of Battery "A" (Pet., p.6). Petitioner states that it is possible to use the enclosed cars during nighttime Battery "A" operations (apparently because no construction would then be occurring), thereby minimizing emissions to the maximum extent possible during reconstruction. The daytime controls would consist of receiving cars which are not enclosed and which are of a short enough length not to interfere with construction. Any other control approach, such as altering Petitioner's pushing schedules, would jeopardize efficient operation and maximum production of coke from Battery "A", because battery heat imbalance can damage refractories (R.49-0).

In February of 1979, Battery "A" was shut down for reconstruction; it started up on April 8, 1980. Two months later, Petitioner's other two batteries were shut down. Petitioner testified that it has a duty pursuant to a consent decree to rebuild all three batteries (R.70-1). The consent decree is not part of the record in this matter. At present, Petitioner's sole inplant supply of coke to produce molten iron is that produced from coal

coked in Battery "A." In January and February of 1981, 30% of the coke purchased by Petitioner to continue steel manufacturing was produced outside the United States; with only Battery "A" in operation, Petitioner purchases almost 2,000 tons of coke for one day's operation to supplement the 850 tons of coke produced by Battery "A." When all three batteries were operating an additional amount of some 230 tons of coke had been purchased (Pet, pp.4-5).

Petitioner's application for a construction permit for Battery "B" is presently pending before the Agency. Over the past year the Agency has inspected Batteries "A" and "B" numerous times and is well conversant with Petitioner's entire facility. The Agency states that it cannot issue a construction permit for Battery "B" until Petitioner obtains a variance regarding Battery A, e.g., due to the temporary use of unenclosed pushing cars, which the Agency states is not allowed under Rule 203(d)(5)(B)(iii) (R.17,76). However, that rule does not specify whether controls must be enclosed; it specifies that any controls must be designed with a minimum capture efficiency of 90%. The petition does not state whether the proposed controls are designed to achieve 90% efficiency; the Board presumes that they are not.

The Agency's modeling studies indicate that when the enclosed car pushing controls are not used, emissions will increase "in the area" by more than 5 ug/m^3 . The Agency does not specify whether this relates to uncontrolled emissions or to the control operations specified in the petition; the Board presumes it refers to uncontrolled emissions whenever enclosed pushing controls are not used on Battery "A" operations. Petitioner estimates that for every ton of coal charged, 0.47 lbs. of uncontrolled particulate emissions from the pushing operations of Battery "A" will occur, but that only 0.24 lbs. per ton will occur by pushing clean coke and following good oven flue maintenance practices (R.68-9). Petitioner estimates that grant of variance will add "less than 0.2 of one percent (sic)" of its total annual allowable particulate matter emission rate into the atmosphere, and that any adverse effect on ambient air quality in this nonattainment area will be of no significance. Emissions from Battery "A" given variance are estimated to total 7.4 tons "during this period of [variance]" (R.66). Petitioner estimates the amount of particulate matter which is not emitted due to nonoperation of Battery "B" to total 9.9 tons for the period of variance (R.71-2). The Agency expresses concern that without variance Battery "A" would have to be shut down during the period of construction of Battery "B" given the physical configuration of the plant.

Battery A, although a source "constructed" from February of 1979 to April of 1980 (Pet., p.4), is, by virtue of Petitioner's compliance plan, a source "modified" after September 6, 1979 due to changes in the method of operation of air pollution control equipment on its pushing system. For this reason the compliance date for Rule 203(d)(5)(B)(iii) is upon commencement of operation of Battery "A" after grant of variance. Rule 203(d)(5)(L)(i).

Petitioner states that the variance need not be made a revision to the State Implementation Plan (SIP) (see 42 U.S.C. §7410, Section 110) inasmuch as the latest possible date of attainment of the primary national ambient air quality standard for particulate matter concentrations is after December 31, 1982. However, the Board's Rule 307 standards are presently effective and applicable to Petitioner pursuant to Rule 304. For this reason the Board construes the petition for relief to include request for variance from Rule 307. The Agency states that no SIP revision is appropriate until Rule 203(d)(5)(B)(iii) is approved by the USEPA as a SIP revision. The Board notes that Petitioner can be exposed to violations of the SIP beginning after December 31, 1982 were that rule to be approved and this variance not submitted to revise the SIP. The Agency explicitly recommends variance only under specific conditions, discussed below.

The Board finds that compliance with the Board's regulations regarding the operation of Battery "A" pushing controls constitutes an immediate hardship of an unreasonable nature, both because of the physical proximity of Battery "B" to Battery "A" and because of the dependence of the steel manufacturing process upon an adequate and timely coke supply. The Board therefore grants variance from Rules 102, 103, 203(d)(5)(B)(iii) and 307 of Chapter 2. It also grants variance from any applicable Agency Rules For Issuance of Permits to New or Modified Air Pollution Sources Affecting Nonattainment Areas (see §9.1(e) of the Act) to the extent they would expose Petitioner to a violation of §§9.1(f)(1) and (2) of the Act. Nothing in this Opinion is intended to interfere with the Agency's duty under §39(d) of the Act, where applicable, to issue either a permit to construct Battery "B" or a revised permit to operate Battery "A." There is nothing in the record as to whether Petitioner's facility and/or batteries are "major" sources as defined in the Agency's Rule 4.9, although a "major construction permit petition" is presently pending with the Agency regarding Battery "B" (R.9,17).

Regardless of the attainment date of the national ambient air quality standards for particulate matter, the Board may grant variances from state requirements for a period of up to five years. Section 36(b) of the Act. The compliance plan submitted projects a completion of the construction project within 93 weeks after construction commences; the Board will grant variance through May 1, 1983 consistent with this timetable. Because the length of variance extends beyond the final attainment date under the CAA of December 31, 1982, the Board will require that Petitioner keep the Agency satisfactorily informed of all construction-related events. In addition to informing the Agency of the beginnings and ends of each of the four construction phases, Petitioner shall inform the Agency of any construction-related occurrences (labor strikes; facility damage; source malfunctions; equipment delivery delays or malfunctions; citizen complaints or inquiries; etc.).

Petitioner's May 8, 1981 motion to expedite decision, agreed to by the Agency (R.83), is granted.

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

ORDER

It is the Order of the Illinois Pollution Control Board that Granite City Steel Division of National Steel Corporation be and hereby is granted variance from Rules 102, 103, 203(d)(5)(B)(iii) and 307 for pushing operations related to its Battery "A" and reconstruction of its Battery "B" at its Granite City, Madison County, facility through May 1, 1983 upon the following terms and conditions.

1. Granite City Steel Division of National Steel Corporation shall adhere to the construction schedule, Exhibit A, Table 1 to its Petition, which schedule is hereby incorporated as if fully set forth herein.

2. During all times indicated in Paragraph 1 of this Order, both enclosed and unenclosed pushing systems shall be maintained and operated by Granite City Steel Division of National Steel Corporation so as to minimize emissions of particulate matter to the greatest extent practicable.

3. Granite City Steel Division of National Steel Corporation shall, within five days of their occurrence, send written notice of the beginnings and ends of the four construction phases outlined in the schedule referred to in Paragraph 1 of this Order to the Illinois Environmental Agency, Regional Manager, 115A West Main Street, Collinsville, Illinois.

4. Granite City Steel Division of National Steel Corporation shall, within fourteen days of their occurrence, send written or telephone notice of any and all occurrences which may affect ability to comply with the schedule referred to in Paragraph 1 of this Order to the Illinois Environmental Protection Agency Regional Manager, 115A West Main Street, Collinsville, Illinois

5. Within forty-five days of the date of this Order, Petitioner shall execute and forward to the Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706, a Certificate of acceptance and agreement to be bound to all terms and conditions of this variance. This forty-five day period shall be held in abeyance for any period during which this matter is being appealed. The form of the certificate shall be as follows:

CERTIFICATE

I, (We), _____, having read the Order of the Illinois Pollution Control Board in PCB 81-44 dated _____, understand and accept the said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.


Petitioner

By: Authorized Agent

Title

Date

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 28th day of Jan., 1981 by a vote of 4-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board