

ILLINOIS POLLUTION CONTROL BOARD
January 10, 1985

REPUBLIC STEEL CORPORATION)
and LTV STEEL COMPANY,)
)
Petitioners,)
)
v.) PCB 84-111
)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Respondent.)

MR. JAMES T. HARRINGTON, ROOKS, PITTS & POUST, APPEARED FOR PETITIONER;

MR. PETER E. ORLINSKY, ATTORNEY-AT-LAW, APPEARED FOR RESPONDENT.

OPINION AND ORDER OF THE BOARD (by B. Forcade):

On July 30, 1984, Republic Steel Corporation and LTV Steel Company ("Republic") filed a petition for variance from 35 Ill. Adm. Code §212.451 until December 31, 1988. On October 5, 1984, the Illinois Environmental Protection Agency ("Agency") filed a Recommendation that variance be granted until December 31, 1987, with certain conditions. Hearing was held October 26, 1984, no members of the public attended.

Republic owns and operates an integrated steel mill on the south side of Chicago at 116th Street and Burley Avenue. The steel mill employs approximately 4,000 people at various facilities designed to convert iron ore and scrap into finished steel. One part of the steel mill is a 44-inch mill hot scarfing machine. The hot scarfing machine utilizes a flame to remove impurities from slabs of steel prior to final rolling. In the process of removing these impurities, iron oxide in the form of particulate matter is emitted. These emissions are ducted through a wet scrubber for the removal of particulate matter prior to emission to the atmosphere (Pet., ¶¶ 1-4; R. 11-14).

The Board has adopted regulations regarding emissions from hot scarfing machines at 35 Ill. Adm. Code 212.451:

All hot scarfing machines shall be controlled by pollution control equipment. Emissions from said pollution control equipment shall not exceed 69 mg/dscm (0.03 gr/dscf) during hot scarfing operations.

Republic conducted tests in 1975 and 1981 respecting emissions from the hot scarfing machines, using two different test methods (Pet., Ex. 5 & 6; R 24-28):

October 14, 1975	0.0413 gr/dscf
October 16, 1975	0.0339 gr/dscf
October 20, 1975	0.0194 gr/dscf
April 23, 1981	0.0411 gr/dscf
April 23, 1981	0.1063 gr/dscf
April 23, 1981	0.0442 gr/dscf

Based on these tests, Republic estimates its current emissions at 0.04 gr/dscf (R. 28), the Agency averaged the 1981 tests and concluded emissions are 0.06 gr/dscf (Rec. ¶5); either value exceeds the 0.03 gr/dscf limitation of §212.451.

Based on the 0.06 gr/dscf emission values and Republic's operating procedures, the Agency calculated actual, allowable and excess emissions (Rec., ¶5), as follows:

	<u>gr/dscf</u>	<u>lb/hr</u>	<u>ton/yr</u>
Actual	0.06	2.0	5.48
Allowable	0.03	1.0	2.74
Excess	<u>0.03</u>	<u>1.0</u>	<u>2.74</u>

Republic's calculations agreed (R. 31, Ex. 7).

In 1981, Republic secured an engineer's estimate of the cost to modify the existing equipment to achieve compliance (Ex. 4). The 1981 estimate of approximately \$1 million, inflated to 1984 by use of the construction cost index, is approximately \$1.3 million for capital expenditures alone (R. 14-15). Installation time is estimated at two years (Pet. ¶14), and would involve some down time that might interfere with production (R. 21).

Republic's facility is located in an area which is designated as nonattainment for particulates. It is a heavy industrial area with the nearest residences approximately 1/2 mile to the northeast. The nearest air monitoring station, Washington High School, also is located about 1/2 mile to the northeast.³ In 1983, the annual geometric mean for particulates was 93 ug/m³. The Board's particulate regulations, Section 243.121, provide a primary standard of 75 ug/m³ and a secondary standard of 60 ug/m³. Board regulations establish 24-hour maximum concentrations of particulates that are not to be exceeded more than once per year; the primary standard is 260 ug/m³ and the secondary standard 150 ug/m³. The 260 standard was exceeded twice in 1983 at Washington School, but had not been exceeded in 1984 as of the date of the Agency's recommendation (Rec. p. 4).

In an effort to evaluate the impact of the excess scarfing emissions, Republic conducted several modelling analyses (Ex. 8-13).

The worst-case model predicted a maximum off-property impact, virtually adjoining the facility, of 0.14 ug/m³ on the annual average and 2.1 ug/m³ on the 24-hour second highest value (Ex. 13, R. 59-60). At Washington School, approximately the nearest human habitation, the worst₃ case impacts are 0.05 ug/m³ on the annual average and 0.6 ug/m³ on the 24-hour second highest value (Ex. 13, R. 64-65). All of these impact values are below the level USEPA considers significant for new permitting of PSD facilities [40 CFR 51.18, and Appendix S, III, (A), (1982)] and ambient measurement of particulates (45 FR 52709, August 7, 1980). The Agency does not believe these emissions would have a significant impact on air quality (Rec., ¶10).

Republic submits that the substantial expenditures to comply would impose an arbitrary and unreasonable hardship in view of the insignificant impact on air quality. The Agency agrees. As a method of compliance, Republic intends to file a request for site-specific regulatory relief (Pet. ¶18). The Agency requests that Republic be required to file such a request by December 31, 1984, as a condition of the variance. The Board will not require submission of a site-specific proposal as a condition of the variance. However, the Board clearly anticipates Republic will expeditiously pursue a site-specific proposal. The Board believes that Republic may receive a final decision on whether or not site-specific relief is justified within approximately one year, if such relief is diligently pursued. Consequently, the Board will grant variance for that term. If problems develop, Republic may file for extension of that time period.

Since the Board has some confusion as to the legal distinction between Republic and LTV, a separate signature line is provided for each in the certification.

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

ORDER

Republic Steel Corporation and LTV Steel Company are hereby granted a variance from 35 Ill. Adm. Code 212.451, subject to the following conditions:

1. This variance shall expire July 1, 1986, or 60 days after any final Board Order on a request for site-specific regulatory relief for Republic's 44-inch hot scarfing machine, whichever is earlier.
2. Within 30 days of the date of this Order, Republic shall apply to the Illinois Environmental Protection Agency for an operating permit for its hot scarfing machine.
3. Within 45 days of the date of this Order, Republic Steel Corporation and LTV Steel Company shall execute a

Certification of Acceptance and Agreement to be bound to all terms and conditions of this variance. Said Certification shall be submitted to the Agency at 2200 Churchill Road, Springfield, Illinois 62706. The 45 day period shall be held in abeyance during any period that this matter is being appealed. The form of said Certification shall be as follows:

CERTIFICATION

I, (We) _____, hereby accept and agree to be bound by all terms and conditions of the Order of the Pollution Control Board in PCB 84-111, January 10, 1985.

Petitioner -
Republic Steel

Petitioner -
LTV Steel

Authorized Agent

Authorized Agent

Title

Title

Date

Date

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 10th day of January, 1985 by a vote of 5-0.

Dorothy M. Gunn
Dorothy M. Gunn, Clerk
Illinois Pollution Control Board