

Puget Sound Clean Air Agency

1904 3rd Ave, Ste 105, Seattle, WA 98101-3317: Agata McIntyre (206) 689-4061

Point Source Emission Report

November 6, 2007

NUCOR STEEL SEATTLE INC
Facility ID #: 10281
AFS#: 053-033-00006

Section 4 - Facility Emission Summary

<u>CAS#</u>	<u>Flags</u>	<u>Air Contaminants:</u>	<u>pounds/ 2006</u>	<u>tons / 2006</u>	<u>pounds/2007</u>	<u>tons /2007</u>
71-55-6	T H	1,1,1-Trichloroethane (Methyl chloroform)	_____	_____	_____	_____
7440-43-9	T H	Cadmium and compounds	_____	_____	_____	_____
CO		Carbon Monoxide	1,363,802	682	_____	_____
7440-47-3	T H	Chromium and compounds	_____	_____	_____	_____
7440-50-8	T	Copper (dust, mist and fumes)	_____	_____	_____	_____
100-41-4	V T H	Ethyl benzene	_____	_____	_____	_____
1309-37-1	T	Iron oxide fumes, Fe2O3 as Fe	_____	_____	_____	_____
7439-92-1	T H	Lead and compounds	_____	_____	_____	_____
7439-96-5	T H	Manganese and compounds	_____	_____	_____	_____
7440-02-0	T H	Nickel and compounds	_____	_____	_____	_____
NO2		Nitrogen Oxides	368,121	184	_____	_____
43207	V	Other Volatile Organic Compounds (VOC)	109,364	55	_____	_____
PM10		Particulate Matter	_____	_____	_____	_____
PM2.5		Particulate Matter	_____	_____	_____	_____
127-18-4	T H	Perchloroethylene (tetrachloroethylene)	_____	_____	_____	_____
SO2		Sulfur Oxides	159,265	80	_____	_____
108-88-3	V T H	Toluene	_____	_____	_____	_____
1314-62-1	T	Vanadium, as V2O5	_____	_____	_____	_____
1330-20-7	V T H	Xylenes	_____	_____	_____	_____
1314-13-2	T	Zinc oxide, fumes	_____	_____	_____	_____
			=====	=====	=====	=====
		Volatile Organic Compounds Total (V)	109,364	55	_____	_____

Puget Sound Air Pollution Control Agency

HEREBY ISSUES AN ORDER OF APPROVAL
TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. 10281

Notice of
Construction No. 4492

Date JUN 16 1992

Replace an existing Reheat Furnace with a new Bricmont Reheat Furnace with a natural gas fired LO-NOX Bloom Burner at 32,400 cfm (500F). This supersedes Order of Approval NC4492, dated May 20, 1992.

S L MORGAN, MGR, ENVIRONMENTAL SYS

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SALMON BAY STEEL CORP - WEST SEATTLE

PO BOX 16995

SEATTLE

WA 98116

O SALMON BAY STEEL CORP - WEST SEATTLE

W PO BOX 16995

E SEATTLE

WA 98116

INSTALLATION ADDRESS


SALMON BAY STEEL CORP - WEST SEATTLE, 2424 SW ANDOVER ST, SEATTLE, WA, 98106

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

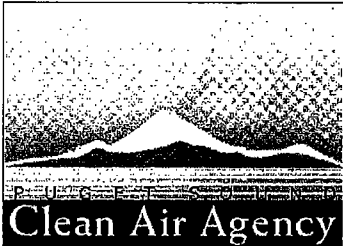
1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Air Pollution Control Agency to the applicant to install, alter or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of PSAPCA.
2. Compliance with this ORDER and its conditions does not relieve the owner or operator from the responsibility of compliance with Regulations I, II or III, RCW 70.94 or any other emission control requirements, nor from the resulting liabilities and/or legal remedies for failure to comply. Section 5.05(e) of Regulation I requires that the owner or operator must develop and implement an operation and maintenance (O&M) plan to assure continuous compliance with Regulations I, II, and III.
3. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.
4. Salmon Bay shall not exceed 0.25 lb/MMBTU for NOx emissions from the reheat furnace and shall demonstrate compliance by performing a PSAPCA-Approved source test within 90 days of startup.


HARRY A. WATTERS
Reviewing Engineer

MEI

 P.E.
PETER B. BOSSERMAN
Reviewing Engineer


ANITA J. FRANKEL
Air Pollution Control Officer



Puget Sound Clean Air Agency

Notice of
Construction No. **9669**

Registration No. **10281**

Date

FEB 14 2008

**HEREBY ISSUES AN ORDER OF APPROVAL
TO CONSTRUCT, INSTALL, OR ESTABLISH**

Crane upgrade from single hoist to double hoist and scrap yard reconfiguration.

APPLICANT

**Barton Kale
Nucor Steel Seattle Inc
2424 SW Andover St
Seattle, WA 98106**

OWNER

**Nucor Steel Seattle Inc
2424 SW Andover St
Seattle, WA 98106**

INSTALLATION ADDRESS

Nucor Steel Seattle Inc, 2424 SW Andover St, Seattle, WA, 98106

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.
3. Emissions of fine particulate matter (PM10) from the high temperature (Baumco) baghouse shall not exceed any of the following limits, as determined by methods in Condition 5:
 - a. 0.0018 grain per dry standard cubic foot of exhaust gas.
 - b. 7.14 pounds per hour.
4. Emissions of fine particulate matter (PM10) from the low temperature (Wheelabrator) baghouse shall not exceed any of the following limits, as determined by methods in Condition 5:
 - a. 0.00165 grain per dry standard cubic foot of exhaust gas.
 - b. 7.93 pounds per hour.
5. Source testing for compliance with the PM10 emission limits in Conditions 3 and 4 shall utilize EPA Reference Test Methods 5D, 201, or 201A, and shall comply with requirements in Puget Sound Clean Air Agency Regulation I, Section 3.07. Source testing for PM10 shall be conducted at a frequency no less than once per calendar year, with not less than 6 or more than 18 months between any two annual tests.
6. Emissions of oxides of nitrogen (NOX) from the EAF (high and low-temperature baghouses combined) shall not exceed 0.480 pound per ton of steel produced for any consecutive 30 day period. Compliance with this condition shall be demonstrated at an interval of no less than once every calendar year, with not less than 6 or more than 18 months between any two annual tests, by source testing at the inlets to the high and low temperature baghouses using 40 CFR Part 60,

Order of Approval for NC No. 9669

FEB 14 2008

Appendix A Method 7E, in accordance with Puget Sound Clean Air Agency Regulation I, Section 3.07. Compliance with this condition shall be determined by the average of all tests conducted within a consecutive 30 day period.

7. Emissions of carbon monoxide (CO) from the EAF (high and low-temperature baghouses combined) shall not exceed 1.98 pounds per ton of steel produced for any consecutive 30 day period. Compliance with this condition shall be demonstrated at an interval of no less than once every calendar year, with not less than 6 or more than 18 months between any two annual tests, by source testing at the inlets to the high and low temperature baghouses using 40 CFR Part 60, Appendix A Method 10, in accordance with Puget Sound Clean Air Agency Regulation I, Section 3.07. Compliance with this condition shall be determined by the average of all tests conducted within a consecutive 30 day period.

8. Nucor shall calculate and maintain a record of annual emissions, in tons per year, on a calendar year basis for a period of ten years following resumption of regular operations after installation of the new crane, as follows:

a. Nucor shall calculate the emissions of PM10, NOX, SO2, VOC and lead from the electric arc furnace and reheat furnace, plus fugitive emissions of PM10 from vehicle travel on paved and unpaved surfaces, slag handling, and scrap handling using the average of the emission factors from all Nucor stack tests conducted during the calendar year or using emission factors from AP-42 or other literature sources if Nucor stack test information is not available;

b. Nucor shall submit an annual report to the Puget Sound Clean Air Agency stating the emissions of PM10, NOX, SO2, VOC and lead during the preceding calendar year. The report shall be submitted to the Agency at the same time as Nucor's annual emissions report submitted in compliance with Agency Regulation I Section 7.09(a). If the reported annual emissions of PM10, NOX, SO2, VOC or lead exceed the "baseline actual emissions" established in Condition 9 of this Order by a "significant" amount, as listed in Condition 9, the report shall also include an explanation as to why the emissions of that pollutant differ from the preconstruction projection.

9. "Baseline actual emissions" and "significant" emission increases are as follows:

Pollutant/"Baseline actual emissions" tons per year/"Significant emission increases" tons per year

a. PM10/32.6/15

b. SO2/39.6/40

c. NOX/171.4/40

d. VOC/24.7/40

e. Lead/0.11/0.6

10. Nucor shall minimize fugitive emissions from paved roads by dispatching a vacuum truck to clean paved roads on a weekly basis when dry conditions persist and by dispatching a water truck to wet down paved roads when dry conditions persist.

11. Nucor shall minimize fugitive emissions from scrap handling by maintaining and operating a sprinkler system in the scrap yard. The sprinklers shall be controlled by an automatic timer that will be adjusted to operate more frequently when dry conditions persist.

12. This Order cancels and supersedes Orders of Approval Nos. 5690 and 5710 (dated December 22, 1994), Approval


Order of Approval for NC No. 9669

FEB 14 2008

Order No. 8433 (dated June 19, 2002) and Approval Order No. 9089 (dated December 1, 2004).


APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.

 PE

Agata McIntyre
Reviewing Engineer

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 PE

Steven Van Slyke
Supervising Engineer

**WASHINGTON STATE DEPARTMENT OF ECOLOGY
P.O. BOX 47600
OLYMPIA, WASHINGTON 98504-7600**

IN THE MATTER OF:

NUCOR STEEL		PSD-07-02
SCRAPYARD CRANE PROJECT		
NUCOR STEEL, SEATTLE, INC.		FINAL APPROVAL OF THE
2424 S.W. ANDOVER STREET		PREVENTION OF SIGNIFICANT
SEATTLE, WA 98106		DETERIORATION APPLICATION

Pursuant to the federal Prevention of Significant Deterioration (PSD) regulations, 40 Code of Federal Regulations (CFR) 52.21, and the Washington State Department of Ecology (Ecology) general regulations for air pollution sources, Chapter 173-400 Washington Administrative Code (WAC), Ecology now finds the following:

FINDINGS

1. Nucor Steel (Nucor) has applied to modify its scrapyard crane system and increase production in its steel mini-mill located in Seattle, Washington.
2. A PSD application was submitted on July 2, 2007. The application was found to be complete on July 31, 2007.
3. Nucor is located at 2424 S.W. Andover Street, Seattle, WA 98106. Its Universal Transverse Mercator (UTM) coordinates are 547658E, 5268471N in NAD 27.
4. Nucor is located in a Class II area that is designated as "attainment or unclassified" for the purpose of PSD permitting for all pollutants. The distances to nearest Class I areas are shown in the following table:

Class I Area	Distance in Kilometers
Olympic National Park	57
Alpine Lakes Wilderness Area	60
Mount Rainer National Park	70
Glacier Peak Wilderness Area	110

5. The proposed project consists of upgrading one of the older single hoist cranes and reconfiguring the rail spurs in the scrapyards (scrapyard crane project). With an upgraded crane, the facility will be able to increase the annual steel production rate by increasing the number of hours the EAF operates.
6. Nucor is an existing major stationary source that emits more than 100 tons of a regulated pollutant per year.
7. The net emissions increases from this project under Chapter 173-400 WAC are shown in the following table:

Pollutant	Net Emissions Increase (tpy)	PSD Significant Emission Rate (SER)
Particulate (PM ₁₀)	10.1	15
Sulfur Dioxide (SO ₂)	15.7	40
Nitrogen Oxides (NO _x)	38.9	40
Volatile Organic Compounds (VOC)	9.1	40
Carbon monoxide (CO)	261.0	100
Lead (Pb)	0.04	0.6

This project is subject to PSD permitting for emissions of CO because the net emissions increase is greater than the PSD SER.

8. Emissions of all other pollutants are subject to Notice of Construction (NOC) permitting requirements and will be addressed by the Puget Sound Clean Air Agency (PSCAA).
9. There is no Best Available Control Technology (BACT) analysis required for this project because the debottlenecked units that produce all of the CO emitted by the facility are not being physically modified.
10. Nucor has elected to take a federally enforceable limit on the number of tons of steel produced each year.
11. Nucor's electric arc furnace was subject to New Source Performance Standard (NSPS) 40 CFR 60, Subpart A, General Provisions and 40 CFR 60 Subpart AAa, prior to this project. This project will not affect the applicability to the furnace of Subparts A or AAa.
12. Allowable CO emissions increases from the scrapyards crane project will not cause the region to exceed the CO national ambient air quality standards, as shown in the following table:

Pollutant	Averaging Period	National Ambient Standard ($\mu\text{g}/\text{m}^3$)	State Ambient Standard ($\mu\text{g}/\text{m}^3$)	Maximum Background Contribution ($\mu\text{g}/\text{m}^3$)	Maximum Off-Site Concentration Due to Facility Emissions Including Project Emissions ($\mu\text{g}/\text{m}^3$)	Total Maximum Concentration ($\mu\text{g}/\text{m}^3$)
CO	1-hour	40,000	40,000	6,122	2,662	8,784
	8-hour	10,000	10,000	4,747	810	5,557

13. Proposed CO emissions increases from this project will not significantly impact ambient air quality at the Alpine Lakes Wilderness or the Olympic National Park. The CO total emissions increase from the facility will not have a significant impact beyond approximately 0.5 kilometer from the facility. Since the nearest Class I areas are each more than 50 kilometers from the facility, the project will not have a significant impact on any Class I area.
14. A Class II increment consumption analysis is not required because no increments have been established for CO.
15. The project will not have a noticeable effect on industrial, commercial, or residential growth in the Seattle area.
16. Visibility, deposition, and other air quality related values are not expected to be significantly impaired at any Class I area because CO does not impact visibility, and has no known effects on air quality related values.
17. Based upon the Technical Support Document prepared on October 12, 2007, and the application, Ecology finds all requirements for PSD have been satisfied. Approval of the PSD application is granted subject to the following conditions.

APPROVAL CONDITIONS

Production Limits

1. Nucor shall produce no more than 1.1 million tons of billets during each consecutive 12-month rolling period.

Initial Compliance

2. Because the facility and equipment is already in operation, there are no initial compliance determination requirements.

Compliance Methods

3. Compliance with Approval Condition 1 shall be determined by recordkeeping.

Monitoring Methods

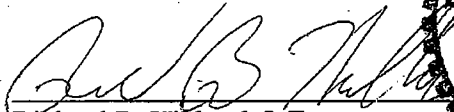
4. Compliance with Approval Condition 1 shall be monitored by keeping a monthly log of monthly steel production for the previous 12-month period. Records shall be updated no later than 30 days after the end of the month.

Other

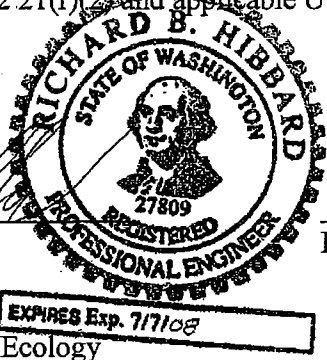
5. Nucor shall submit semi-annual reports to Ecology and PSCAA. Once the reporting requirements of this condition have been included in Nucor's Title V permit, it will no longer be necessary to send separate reports to Ecology or PSCAA.
 - 5.1 Each report shall show Nucor's compliance with Approval Condition 1 during each of the 12-month intervals that terminate during the reporting period. The first report shall be filed within 30 days of completion of the first 12-month operating period following startup of the rebuilt scrapyard crane.
 - 5.2 All records required by this permit should be retained on-site for a period of not less than five years.
6. Sampling ports and platform shall be provided on each stack, after any final pollution control device. The ports shall meet the requirements of 40 CFR 60 Appendix A-3, Method 5D, Figure 5D-2. Adequate permanent and safe access to the test ports shall be provided.
7. Nucor shall notify Ecology and PSCAA in writing at least three days prior to startup of the rebuilt scrapyard crane allowed under this permit.
8. The effective date of this permit shall not be earlier than the date upon which the United States Environmental Protection Agency (USEPA) notifies Ecology that the USEPA has satisfied its obligations, if any, under Section 7 of the Endangered Species Act (ESA) 16 U.S.C. § 1531 et seq., 50 CFR Part 402, subpart B (Consultation Procedures) and Section 305(b)(2) of the Magnuson-Stevens Fishery and Conservation Act 16 U.S.C. § 1801 et seq., 50 CFR Part 600, subpart K (EFH Coordination, Consultation, and Recommendations).
9. Access to the source by Ecology, PSCAA, or the USEPA shall be permitted upon request. Failure to allow such access is grounds for an enforcement action under the Federal Clean Air Act or the Washington State Clean Air Act.
10. This approval shall become invalid if construction of the project is not commenced within eighteen (18) months after receipt of the final approval or if construction of the facility is

discontinued for a period of eighteen (18) months, unless Ecology extends the 18-month period, pursuant to 40 CFR 52.21(r)(2) and applicable USEPA guidance.

Reviewed by:

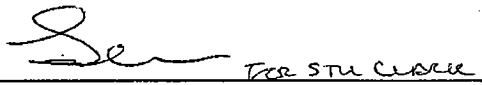


Richard B. Hibbard, P.E.
Technical Services Section
Air Quality Program
Washington State Department of Ecology



2/14/08
Date

Approved by:

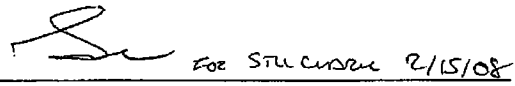


Stuart A. Clark, Program Manager
Air Quality Program
Washington State Department of Ecology

2/15/08
Date

Ecology was notified by the USEPA that the USEPA has satisfied its obligations under the Endangered Species and Magnuson-Stevens Acts relative to PSD Permit 07-02 issued to Nucor Steel on:

September 14, 2007
Date of USEPA Notification


For STU CLARK 2/15/08
Stuart A. Clark, Program Manager
Air Quality Program
Washington State Department of Ecology