



December 21, 2022

Mr. Sterling Gray, Manager  
North Star Casteel Products, Inc.  
1200 W 13<sup>th</sup> Street  
Vancouver, WA 98660

Subject: Final Air Discharge Permit for New Heat Treat Oven

Dear Mr. Gray:

A final determination to issue Air Discharge Permit 22-3557 (ADP 22-3557) has been completed for Air Discharge Permit (ADP) Application CL-3208 pursuant to Section 400-110(4) of the General Regulations for Air Pollution Sources of the Southwest Clean Air Agency (SWCAA). Public notice for ADP Application CL-3208 was published in the permit section of SWCAA's internet website on August 16, 2022. SWCAA did not receive a request for a public comment period in response to the public notice and has concluded that significant public interest does not exist for this determination. Therefore, a public comment period will not be provided for this permitting action. Electronic copies of ADP 22-3557 and the associated Technical Support Document are available for public review in the permit section of SWCAA's internet website (<http://www.swcleanair.gov/permits/adpfinal.asp>). Original copies are enclosed for your files.

This Air Discharge Permit may be appealed directly to the Pollution Control Hearings Board (PCHB) at P.O. Box 40903, Olympia, Washington 98504-0903 within 30 days of receipt as provided in RCW 43.21B.

If you have any comments, or desire additional information, please contact me or Wess Safford at (360) 574-3058, extension 126.

Sincerely,

Uri Papish  
Executive Director

UP:wls

Enclosure – Air Discharge Permit 22-3557 and Technical Support Document





**SWCAA**  
Southwest Clean Air Agency

**AIR DISCHARGE PERMIT**  
**22-3557**

**Issued: December 21, 2022**

North Star Casteel - Vancouver  
1200 W 13<sup>th</sup> Street, Vancouver, WA 98660

SWCAA ID - 1005



REVIEWED BY:

Clinton Lamoreaux, Chief Engineer

APPROVED BY:

Uri Papish, Executive Director

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**1. Equipment/Activity Identification**

<b>ID No.</b>	<b>Equipment/Activity</b>	<b>Control Measure/Equipment</b>
1	Wheelabrator Tumblast	Process Enclosure, Baghouse #3 (Wheelabrator – 4,300 acfm)
2	Casting Building	Process Enclosure, Baghouse #4 (ICA – 40,000 acfm)
3	Weld Shop	Process Enclosure, Baghouse #5 (FFNW – 15,000 acfm)
4	Annealing Oven	Low Sulfur Fuel (Nat Gas)
5	Heat Treat Oven	Low Sulfur Fuel (Nat Gas)

**2. Approval Conditions**

The following tables detail the specific requirements of this permit. In addition to the requirements listed below, equipment at this facility may be subject to other federal, state, and local regulations. The permit requirement number is identified in the left-hand column. The text of the permit requirement is contained in the middle column. The emission unit, equipment, or activity to which the permit requirement applies is listed in the right-hand column.

ADP 22-3557 supersedes ADP 05-2629R1 and ADP 98-2098 in their entirety.

**Emission Limits**

Req. No.	Emission Limits	Equipment/ Activity ID No.						
1.	<p>Emissions from Baghouse #3 must not exceed the following:</p> <table><tr><td><u>Pollutant</u></td><td><u>Emission Limit</u></td></tr><tr><td>PM</td><td>0.005 gr/dscf, 1-hr avg.</td></tr><tr><td>PM<sub>10</sub></td><td>1.0 tpy</td></tr></table> <p>Annual emissions must be calculated using annual hours of operation and the emission factors presented in the Technical Support Document for this Permit.</p>	<u>Pollutant</u>	<u>Emission Limit</u>	PM	0.005 gr/dscf, 1-hr avg.	PM <sub>10</sub>	1.0 tpy	1
<u>Pollutant</u>	<u>Emission Limit</u>							
PM	0.005 gr/dscf, 1-hr avg.							
PM <sub>10</sub>	1.0 tpy							
2.	<p>Emissions from Baghouse #4 must not exceed the following:</p> <table><tr><td><u>Pollutant</u></td><td><u>Emission Limit</u></td></tr><tr><td>PM</td><td>0.005 gr/dscf, 1-hr avg.</td></tr><tr><td>PM<sub>10</sub></td><td>7.51 tpy</td></tr></table> <p>Annual emissions must be calculated using annual hours of operation and the emission factors presented in the Technical Support Document for this Permit.</p>	<u>Pollutant</u>	<u>Emission Limit</u>	PM	0.005 gr/dscf, 1-hr avg.	PM <sub>10</sub>	7.51 tpy	2
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PM	0.005 gr/dscf, 1-hr avg.							
PM <sub>10</sub>	7.51 tpy							

Req. No.	Emission Limits	Equipment/ Activity ID No.												
3.	<p>Emissions from Baghouse #5 must not exceed the following:</p> <table><tr><td><u>Pollutant</u></td><td><u>Emission Limit</u></td></tr><tr><td>PM</td><td>0.005 gr/dscf, 1-hr avg.</td></tr><tr><td>PM<sub>10</sub></td><td>2.82 tpy</td></tr></table> <p>Annual emissions must be calculated using annual hours of operation and the emission factors presented in the Technical Support Document for this Permit.</p>	<u>Pollutant</u>	<u>Emission Limit</u>	PM	0.005 gr/dscf, 1-hr avg.	PM <sub>10</sub>	2.82 tpy	3						
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PM	0.005 gr/dscf, 1-hr avg.													
PM <sub>10</sub>	2.82 tpy													
4.	<p>Emissions from the Annealing Oven must not exceed the following:</p> <table><tr><td><u>Pollutant</u></td><td><u>Emission Limit</u></td></tr><tr><td>NO<sub>x</sub></td><td>5.26 tpy</td></tr><tr><td>CO</td><td>4.20 tpy</td></tr></table> <p>Annual emissions must be calculated using annual natural gas combustion and the emission factors presented in the Technical Support Document for this Permit.</p>	<u>Pollutant</u>	<u>Emission Limit</u>	NO <sub>x</sub>	5.26 tpy	CO	4.20 tpy	4						
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NO <sub>x</sub>	5.26 tpy													
CO	4.20 tpy													
5.	<p>Emissions from the Heat Treat Oven must not exceed the following:</p> <table><tr><td><u>Pollutant</u></td><td><u>Emission Limit</u></td></tr><tr><td>NO<sub>x</sub></td><td>110 ppmvd @ 3% O<sub>2</sub>, 1-hr avg.</td></tr><tr><td></td><td>2.66 tpy</td></tr><tr><td>CO</td><td>1.64 tpy</td></tr><tr><td>VOC</td><td>0.11 tpy</td></tr><tr><td>PM<sub>10</sub></td><td>0.15 tpy</td></tr></table> <p>Annual emissions must be calculated using annual natural gas combustion and the emission factors presented in the Technical Support Document for this Permit.</p>	<u>Pollutant</u>	<u>Emission Limit</u>	NO <sub>x</sub>	110 ppmvd @ 3% O <sub>2</sub> , 1-hr avg.		2.66 tpy	CO	1.64 tpy	VOC	0.11 tpy	PM <sub>10</sub>	0.15 tpy	5
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PM <sub>10</sub>	0.15 tpy													
6.	Visible emissions from Baghouse #3 controlling emissions from the Pillar coreless induction furnace and pouring lines must not exceed zero percent opacity for more than 3 minutes in any one hour period as determined by a Certified Observer certified in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400).	1												
7.	Visible emissions from the ICA model #14-800SW baghouse (Baghouse #4) controlling emissions from the Pillar coreless induction furnace and pouring lines must not exceed zero percent opacity for more than 3 minutes in any one hour period as determined by a Certified Observer certified in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400).	2												
8.	Visible emissions from the FFNW model 36-26 baghouse (Baghouse #5) must not exceed zero percent opacity for more than 3 minutes in any one hour period as determined by a Certified Observer certified in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400).	3												
9.	Visible emissions from the Heat Treat Oven and Annealing Oven must not exceed zero percent opacity for more than 3 minutes in any one hour period as determined by a Certified Observer certified in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400).	4-5												

**Operating Limits and Requirements**

<b>Req. No.</b>	<b>Operating Limits and Requirements</b>	<b>Equipment/ Activity ID No.</b>
10.	Reasonable precautions must be taken at all times to prevent and minimize fugitive emissions from plant operations.	Facility-wide
11.	The permittee must use recognized good practice and procedures to reduce odors to a reasonable minimum.	Facility-wide
12.	Each pollution control device must be operated whenever the processing equipment served by that control device is in operation. Control devices must be operated and maintained in accordance with the manufacturer's specifications. Furthermore, control devices must be operated in a manner that minimizes emissions.	1-5
13.	Emission units identified in this Permit must be maintained and operated in total and continuous conformity with the emission levels and operational requirements specified in this Permit. SWCAA reserves the right to take any and all appropriate action to maintain the conditions of this Permit, including directing the facility to cease operations until corrective action can be completed.	1-5
14.	A pressure gauge capable of continuously monitoring pressure across baghouse filter media must be installed and maintained on each baghouse.	1-3
15.	Differential pressure across filter media in Baghouse #3 must not exceed 6 inches water column.	1
16.	The Annealing Oven and Heat Treat Oven must only be fired on natural gas.	4-5

**Monitoring and Recordkeeping Requirements**

<b>Req. No.</b>	<b>Monitoring and Recordkeeping Requirements</b>	<b>Equipment/ Activity ID No.</b>
17.	All air quality related complaints, including odor complaints, received by the permittee and the results of any subsequent investigation or corrective action must be recorded for each occurrence.	Facility-wide
18.	With the exception of data logged by a computerized data acquisition system, each record required by this Permit must include the date and the name of the person making the record entry. If a control device or process is not operating during a specific time period, a record must be made to that effect.	1-5
19.	All records required by this Permit must be kept for a minimum period of no less than three years and must be maintained in a form readily available for inspection by SWCAA representatives.	1-5
20.	Excess emissions and upset conditions must be recorded for each occurrence.	1-5

Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.										
21.	<p>The following information must be collected, recorded at the intervals specified below, and readily available on-site for inspection:</p> <table><tr><td>(a) Pressure drop across each baghouse</td><td>Recorded weekly</td></tr><tr><td>(b) Hours of operation for each baghouse</td><td>Recorded monthly</td></tr><tr><td>(c) Natural gas consumption for each oven</td><td>Recorded monthly</td></tr><tr><td>(d) Welding rod/wire consumption</td><td>Recorded monthly</td></tr><tr><td>(e) Maintenance and repair activities</td><td>Recorded for each occurrence</td></tr></table>	(a) Pressure drop across each baghouse	Recorded weekly	(b) Hours of operation for each baghouse	Recorded monthly	(c) Natural gas consumption for each oven	Recorded monthly	(d) Welding rod/wire consumption	Recorded monthly	(e) Maintenance and repair activities	Recorded for each occurrence	1-5
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(d) Welding rod/wire consumption	Recorded monthly											
(e) Maintenance and repair activities	Recorded for each occurrence											

### Emission Monitoring and Testing Requirements

There are no emission monitoring or testing requirements for the approved equipment cited in this ADP.

### Reporting Requirements

<b>Req. No.</b>	<b>Reporting Requirements</b>	<b>Equipment/ Activity ID No.</b>
22.	<p>All air quality related complaints received by the permittee must be reported to SWCAA within three days of receipt. Complaint reports must include the following information:</p> <ul style="list-style-type: none"> <li>(a) Date and time of the complaint;</li> <li>(b) Name of the complainant;</li> <li>(c) Nature of the complaint; and</li> <li>(d) Description of corrective action taken in response to complaint (if any).</li> </ul>	Facility-wide
23.	<p>Excess emissions must be reported to SWCAA as follows:</p> <ul style="list-style-type: none"> <li>(a) As soon as possible, but no later than 12 hours after discovery for emissions that represent a potential threat to human health or safety;</li> <li>(b) As soon as possible, but no later than 48 hours after discovery for emissions which the permittee wishes to claim as unavoidable pursuant to SWCAA 400-107; and</li> <li>(c) No later than 30 days after the end of the month of discovery for all other excess emissions.</li> </ul>	1-5
24.	<p>The following emission-related information must be reported to SWCAA by March 15<sup>th</sup> for the previous calendar year:</p> <ul style="list-style-type: none"> <li>(a) Hours of operation for each baghouse;</li> <li>(b) Natural gas consumption for each oven;</li> <li>(c) Welding rod/wire consumption; and</li> <li>(d) Calculated air emissions of criteria air pollutants, volatile organic compounds, toxic air pollutants (TAPs), and hazardous air pollutants (HAPs).</li> </ul>	1-5

**3. General Provisions**

<b>Req. No.</b>	<b>General Provisions</b>
A.	For the purpose of ensuring compliance with this ADP, duly authorized representatives of the Southwest Clean Air Agency must be permitted access to the Permittee's premises and the facilities being constructed, owned, operated and/or maintained by the Permittee for the purpose of inspecting said facilities. These inspections are required to determine the status of compliance with this ADP and applicable regulations and to perform or require such tests as may be deemed necessary.
B.	The provisions, terms, and conditions of this ADP bind the Permittee, its officers, directors, agents, servants, employees, successors and assigns, and all persons, firms, and corporations acting under or for the Permittee.
C.	The requirements of this ADP survive any transfer of ownership of the source or any portion thereof.
D.	This ADP must be posted conspicuously at or be readily available near the source.
E.	This ADP will be invalidated, in whole or in part, if construction or installation of any new or modified equipment has not commenced within eighteen (18) months from date of issuance, if construction is discontinued for a period of eighteen (18) months or more without prior SWCAA approval, or if construction is not completed within a reasonable time.
F.	This ADP does not supersede requirements of other Agencies with jurisdiction and further, this ADP does not relieve the Permittee of any requirements of any other governmental Agency. In addition to this ADP, the Permittee may be required to obtain permits or approvals from other agencies with jurisdiction.
G.	Compliance with the terms of this ADP does not relieve the Permittee from the responsibility of compliance with SWCAA General Regulations for Air Pollution Sources, previously issued Regulatory Orders, RCW 70A.15, Title 173 WAC or any other applicable emission control requirements, nor from the resulting liabilities and/or legal remedies for failure to comply.
H.	If any provision of this ADP is held to be invalid, all unaffected provisions of the ADP will remain in effect and be enforceable.
I.	No change in this ADP will be made or be effective except as may be specifically set forth by written order of the Southwest Clean Air Agency upon written application by the Permittee for the relief sought.
J.	The Southwest Clean Air Agency may, in accordance with RCW 70A.15, impose such conditions as are reasonably necessary to assure the maintenance of compliance with the terms of this ADP, the Washington Clean Air Act, and the applicable rules and regulations adopted under the Washington Clean Air Act.