



YAKIMA REGIONAL CLEAN AIR AGENCY

Order of Approval Permit No. NSRP-24-CSC-09

New Source Review Order of Approval for a Peddinghouse Plasma Table and Dust Collector for Canam Steel Corporation (After the Fact).

IN THE MATTER OF approving a project which establishes a new air contaminant source at Canam Steel Corporation (CSC), **THIS ORDER OF APPROVAL IS HEREBY ISSUED TO:**

Applicant/Permittee: Canam Steel Corporation
Prefabricated Structural Steel metal parts

Located at: 2002 Morgan Rd.
Sunnyside, WA 98944

Contact: Canam Steel Corporation
Samuel Clark
Safety, Health & Environmental Coordinator
2002 Morgan Rd.
Sunnyside, WA 98944
(509) 837-7008

IN COMPLIANCE WITH THE PROVISIONS OF THE STATE OF WASHINGTON CLEAN AIR ACT (Revised Code of Washington (RCW) CHAPTER 70.94.152, WASHINGTON ADMINISTRATIVE CODE (WAC) 173-400-110 AND WAC 173-460-040.

ISSUE DATE: August 24, 2010

THIS ORDER OF APPROVAL PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

Construction of the equipment must be conducted in compliance with all data and specifications submitted with the application under which this Order of Approval is issued unless otherwise specified herein. The conditions and limitations of this NSR Order of Approval are attached as follows and shall become federally enforceable and required provisions of the Title V Air Operating Permit AOP # Y-005-01:



DESCRIPTION OF THE SOURCE

1. Canam Steel Corporation hereafter referred to as the Permittee, CSC, the Facility or the permitted Facility is a Title V company in accordance with the Federal Clean Air Act. The Permittee was issued an Air Operating permit on March 21, 2000 and renewed and issued on September 8, 2006 for a period of five years term. The Permittee fabricates structural steel members i.e., trusses and joists (processes details for the facility are found in the statement of bases of the Title V AOP # Y-005-01). The Facility operation is located at 2002 Morgan Rd., Sunnyside, WA. The Permittee has installed an Peddinghouse Plasma Table and Dust Collector with 2,500 actual cubic feet per minute (acfm) flow rate and 99.995 % efficiency.
2. Air emissions from this operation are primarily in the form of Particulate Matter (PM), Nitrogen Oxides (NO_x), Ozone (O₃), Volatile Organic Compounds (VOCs), some of which are known as Hazardous Air Pollutants (HAPs) and/or Toxic Air Pollutants (TAPs) in accordance with the Federal Clean Air Act (FCAA) or Washington Administrative Code (WAC) 173-460-150 and 160, respectively. These emissions are emitted from the plasma table and the dust collector. The City of Sunnyside issued a Determination of Non-Significance (DNS) with respect to the State Environmental Policy Act (SEPA) review for this Facility.
3. Installation of the plasma table and dust collector is a source of an air contaminants requiring a NSR Order of Approval pursuant to the Revised Code of Washington (RCW) 70.94.152 and the WAC 173-400-110 and 173-460-040. This Facility is located in an area that is in attainment with all state and federal air quality standards for all criteria pollutants.

THEREFORE, it is hereby ordered that the project as described above, in the NSR application, and in detailed plans, specifications and other information submitted in reference thereto, is **APPROVED** for construction, installation and operation, **PROVIDED** the following conditions are met:

OPERATIONAL CONDITIONS

4. This Order of Approval (permit) is for the plasma table and dust collector, located at 2002 Morgan Rd., Sunnyside, Washington, in accordance with the plan and specifications submitted with the NSR application to Yakima Regional Clean Air Agency (YRCAA) and specified in Table 1 of this Order of Approval.
5. As provided in the RCW 70.94.152, WAC 173-400-113 and WAC 173-460-060, Best Available Control Technology (BACT) and Toxic-BACT (T-BACT), respectively, are required to control all air emissions from any proposed new facility or modified source. YRCAA finds BACT and T-BACT analysis to be satisfied as follows:



- 5.1 Peddinghause Dust Collector with 2,500 acfm flow rate and 99.995 % control efficiency; and
- 5.2 The Permittee shall develop, maintain and implement an Operation and Maintenance (O&M) plan for the plasma table and dust collector, including appropriate training for all operators.
6. The Permittee shall install and maintain a gauge/manometer to measure the pressure drop across the exhaust of dust collector within 30 days of the receipt of this Order of Approval as specified by the manufacturer. The acceptable range for the gauge shall be developed based on the manufacturer's specification and clearly marked on or nearby the gauge.
7. This Facility is subject to 40 CFR Part 63, Subpart M (Surface Coating of Miscellaneous Metal Parts and Products). The maximum combined fugitive and point source emissions of HAP's in the overall Facility operation shall not exceed 24.1 and/or 9.9 tons for any combined or single HAP, respectively, on a moving 12 month arithmetic average.
8. This Facility is also subject to 40 CFR Part 63, Subpart XXXXXX (Fabricated Structural Metal Manufacturing).
9. This Order of Approval authorizes the use of the following equipment:

Table 1. Authorized Equipment List.

Emission Unit or Activity	Description
Plasma Table	Peddinghause Plasma Table; Model No. FDB2500
Dust Collector	Peddinghause Dust Collector; Model No. DF 2-8; 2,500-3,000 cfm, with 99.995 % efficiency

10. There must be no fallout or any fugitive emissions from operation of these specified installations or any Facility operation beyond the property boundary in a quantity that interferes unreasonably with the use and enjoyment of the property owner upon which the material is deposited or is detrimental to the health, safety or welfare of any person or causes damage to any property or business.
11. The Permittee must develop and implement a site-specific O&M plan for the plasma table and dust collector based on the manufacturer and owners/operators experience as part of BACT. The Permittee must develop the O&M plan within 60 days after the issuance of this Order.



12. Within 70 days from the date of issuance of this Order of Approval, the Permittee shall submit a letter notifying YRCAA that the O&M plan is complete and in place. If the Permittee needs to make any future modification to the plasma table and dust collector, or their operating procedures, an approval in writing from YRCAA must be issued before such modification takes place. The O&M documents must be updated and implemented to reflect such modification.
13. No visible emission shall be allowed from any stack or building opening from this Facility. If the Permittee observes visible emissions from any emission point, the Permittee shall immediately stop the operation creating the emission and take corrective action as directed in the O&M Plan until no more visible emissions are observed.
14. Order of Approval requirements apply to the Facility owner and/or operator(s) and any contractor or subcontractor performing any activity authorized under this Order of Approval. Any person(s), including contractor(s) and/or subcontractor(s), not in compliance with the applicable requirements in this Order of Approval are in violation of Federal, State and Local laws and subject to appropriate civil and criminal penalties. The Facility owner and/or operator, and all contractor(s) or subcontractor(s) are liable for the actions and violations of their employee(s). Any violation committed by a contractor or subcontractor shall be considered a violation by the Facility owner and/or operator, and is also a violation by the contractor and/or any subcontractor(s).
15. The YRCAA Air Pollution Control Officer (APCO) or his representative shall be allowed to enter the Facility at reasonable times to inspect for compliance with applicable regulations and the conditions of this Order.

GENERAL CONDITIONS

16. Establishment of the plasma table and dust collector, and any other emission points at this Facility shall be in compliance with all other requirements specified in all current Federal, State and Local air pollution laws and regulations, including but not limited to FCAA, 40 CFR Part 70, RCW 70.94 (Washington Clean Air Act), WAC 173-400 (General Regulations for Air Pollution Sources), WAC 173-460 (Controls for New Sources of Toxic Air Pollutants), WAC 173-401 (Operating Permit Regulation), and the YRCAA Regulation 1.
17. All plans, specifications or other information submitted to YRCAA and any further authorizations or approvals or denials in relation to this project, shall be incorporated herein and made a part of the YRCAA file and this Order of Approval.
18. Nothing in this approval shall be construed as preventing or evading compliance with any



- other requirement(s) of law including those imposed pursuant to the Washington Clean Air Act, and rules and regulations thereunder. Any violation(s) of such rules and regulations are penalized in accordance with RCW 70.94.430 and YRCAA Regulation 1, Article 5, Penalties.
19. Authorization may be modified, suspended or revoked in whole or part for cause including, but not limited to, the following:
 - 19.1 Violation of any terms or conditions of this authorization; or,
 - 19.2 Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.
 20. The provisions of this authorization are severable and, if any provision of this authorization, or application of any provisions of this authorization to any circumstance, is held invalid, the application of such provision to their circumstances, and the remainder of this authorization, shall not be affected thereby.
 21. The RCW laws and regulations may be superseded or revised without notice. It is the Permittee's responsibility to stay current with laws and regulations governing their business and therefore is expected to comply with all new laws and regulations immediately upon their effective date. Laws and regulation updates will be incorporated into existing Orders of Approval or upon renewal or modification of said Orders of Approval.
 22. All air emissions from this Facility shall be in compliance with all air emission standards at all times. It is the responsibility of the owner to make sure that air emissions are within all known laws and regulations.
 23. Deviations from these conditions are violations subject to penalties in accordance with RCW 70.94.430 and 431, WAC 173-400-230 and YRCAA Regulation 1, Article 5, Section 5.02.
 24. Any person feeling aggrieved by this NSR Order of Approval permit may obtain review thereof by application, within thirty (30) days of receipt of this NSR Approval to the Pollution Control Hearings Board (PCHB), P.O. Box 40903, Olympia, WA. 98504-0903. Concurrently, a copy of the application must be sent to the YRCAA, 329 N. 1st St., Yakima, WA. 98901. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.
 25. If, or whenever the Permittee wants to modify the operation, install new equipment or change the quantity set forth in Appendix A of this Order of Approval, another NSR application must be filed and approved with YRCAA before the changes take place and BACT and T-BACT requirements must be satisfied.

EMISSION LIMITS

26. The Permittee must meet the emission limit of 0.01 grains per dry standard cubic foot (gr/dscf) from the dust collector. Table 2 shows the actual air emissions from this dust collector, Appendix A shows the calculations for these air emissions.

Table 2. Canam Steel Corporation Plasma Table 2 Actual Emissions.

Pollutants	Actual Emissions (lbs/year)*	Allowable Emissions (lbs/year)
Particulate Matter (PM)	0.22	0.77
Nitrogen Oxides (NO _x)	2388.8	8362.2
Ozone (O ₃)	162.2	569.3
Metal fume	0.09	0.32

*Above emissions are based on the information provided by Canam Steel Corporation and USEPA AP-42.

MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

27. Once during each month that the dust collector is in use, the Permittee shall determine and record if the pressure drop across the exhaust filters is within the acceptable range. If the pressure drop is not within the acceptable range, the Permittee shall stop operation and take corrective action as specified in the Facility's O&M plan.
28. Operation and Maintenance procedures shall include but not be limited to the following:
- 28.1 Required scheduled lubrication of all moving parts as specified by the equipment manufacturer;
 - 28.2 Required scheduled calibration of process control instruments as specified by the equipment manufacturer; and
 - 28.3 Scheduled inspection and replacement of equipment or parts for wear and tear, as specified by the equipment manufacturer.
29. The plasma table and dust collector maintenance shall be logged and kept on site. Any log shall be designed by the Permittee and shall contain at least the date, operator name and specific action taken.
30. The required records including this Order of Approval, logs and a copy of the O&M plan for



accessible when requested by YRCAA APCO or his representative or during an inspection. The O&M plan shall be updated to reflect any changes in operating procedures and such changes shall be routinely implemented.

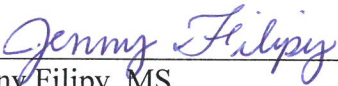
31. Material Safety Data Sheets (MSDS) of all materials contributing to HAP, TAP and VOC emissions shall be maintained on-site and readily accessible when requested by YRCAA personnel.
32. All records shall be kept and maintained at the site for at least the most recent three year period from any present time and be made available during inspections or when requested by YRCAA.
33. Total emissions for criteria pollutants, HAPs, TAPs and VOCs must be calculated and reported to YRCAA on an annual basis as specified in the annual emission inventory as required by the AOP #Y005-01.
34. All recordkeeping required in this Order of Approval must be reported to YRCAA as specified.
35. Any application form, report, or compliance certification, including the annual consumption report, submitted pursuant to this Order of Approval and the AOP must be signed by a responsible official.



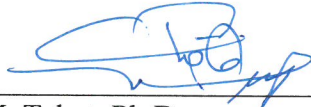
36. This Order of Approval and its conditions shall remain in effect in the event of any change in control or ownership of the Facility. In the event of any such change in control or ownership of the subject Facility, the Permittee shall notify the succeeding owner of the Order of Approval and conditions and shall notify the YRCAA of the change in control or ownership as specified in the AOP.
37. This Order of Approval will be considered invalid without paying the complete appropriate/required fees to YRCAA, pursuant to RCW 70.94.152.

DATED at Yakima, Washington this 24th day of August, 2010.

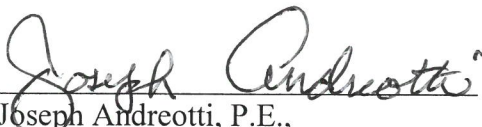
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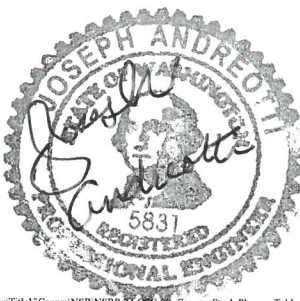

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8/23/10

Appendix A

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Cutting (hr/yr)	Plasma cut gas	Protection gas	Product Width	Particulate Emissions Factor* (lb/hr)	Particulate Emissions (lb/yr)	Emissions with 99.995% reduction	PM Emissions (g/s)	Model Conc. (µg/m ³) Annual Ave	NOx Emissions Factor	NOx (lb/yr)	NOx Emissions (g/s)	Model Conc. (µg/m ³) 10% NO ₂ 1-hr Ave	Model Conc. (µg/m ³) Annual Ave	Model Conc. (ppbv)
174.7	nitrogen	oxygen	0.25	1.05	183.44	0.00317175	1.32E-07	4.61E-05	0.331	57.83	0.001	0.03	0.02	0.01
7862.4	nitrogen	oxygen	0.375	1.76	13837.82	0.0918912	9.95E-06	0.003	0.97	7626.53	0.110	3.83	3.07	1.63
698.8	nitrogen	oxygen	0.5	1.76	1229.89	0.0614944	8.85E-07	3.09E-04	0.97	677.84	0.010	0.34	0.27	0.14
49.9	nitrogen	oxygen	0.25	1.05	52.40	0.00261975	1.32E-07	4.62E-05	0.331	16.52	0.001	0.03	0.01	0.00
2246	nitrogen	oxygen	0.375	1.76	3952.96	0.197648	9.98E-06	0.003	0.97	2178.62	0.110	3.84	0.88	0.47
199.68	nitrogen	oxygen	0.5	1.76	351.44	0.01757184	8.87E-07	3.10E-04	0.97	193.69	0.010	0.34	0.08	0.04
Total Allowable														
Total Actual														
*Fume emission testing for plasma arc cutting Hypertherm														
8 hr/day* 6 days/week * 52 weeks/year														
24 hr/day*7days/week*52 weeks/year														
Actual production output per year														
Output per year														
Allowable Production														

53 ppbv annual NO₂ NAAQS
100 ppbv 1-hr ave NO₂ NAAQS

Assuming 15 lb/hr gouge capacity and 5% dry basis VOC emission
dust collector efficiency 99.995%

Actual total VOC emission (lb per hour) with dust collector
(lb/hr)
3.75E-05

Pollutant	ASIL (µg/m ³)	averaging period	SQER (lb/ averaging period)	De Minimis (lb/ averaging period)	Classification	Carbon Steels (% in Metal)	Actual Emissions w/ 99.995% control (lb/yr)	Allowable Emissions w/ 99.995% control (lb/yr)	Emissions w/ 99.995% control (g/s)	Model Conc. (µg/m ³) 1-hr Ave	Model Conc. (µg/m ³) 24 hour ave	Model Conc. (µg/m ³) Annual Ave
Aluminum, as Al welding fumes	N/A	N/A	N/A	N/A	VOC	0.07	0.00007	0.00023	3.31E-09		4.62E-07	
Chromium (metal)	N/A	N/A	N/A	N/A	HAP, TAP, VOC	0.9	0.00084	0.00295	4.25E-08		5.94E-06	
Chromium, hexavalent metal and compounds	6.67E-06	yr	0.00128	6.40E-05	HAP, TAP, VOC	0.1	0.00009	0.00033	4.73E-09		1.32E-07	
Cobalt as Co metal Dust and fume	0.1	24-hr	0.013	0.000657	HAP, TAP, VOC	0.01	0.00001	0.00003	4.73E-10		6.60E-08	
Copper, Fume	100	1-hr	0.219	0.011		0.5	0.00047	0.00164	2.36E-08	8.25E-06		
Iron oxide fume, Fe ₂ O ₃ as Fe	N/A	N/A	N/A	N/A		82.3	0.07702	0.26961	3.89E-06		5.43E-04	
Manganese & compounds	0.04	24-hr	0.00526	0.000263	HAP, TAP, VOC	1.65	0.00154	0.00541	7.80E-08		1.09E-05	
Molybdenum, as Mo soluble cpds	N/A	N/A	N/A	N/A		0.35	0.00033	0.00115	1.65E-08		2.31E-06	
Molybdenum, insoluble cpds	N/A	N/A	N/A	N/A		0.35	0.00033	0.00115	1.65E-08		2.31E-06	
Nickel and compounds (as nickel subsulfide or nickel refinery dust)	0.00294	yr	0.391	0.0196	HAP, TAP, VOC	2	0.00187	0.00655	9.45E-08		2.64E-06	
Vanadium, as V ₂ O ₅	30	1-hr	0.0657	0.00329	TAP, VOC	0.15	0.00014	0.00049	7.09E-09	2.48E-06		
Zinc oxide, fume	N/A	N/A	N/A	N/A		10.5	0.00983	0.03440	4.96E-07		6.93E-05	
Nitric oxide (NO)	N/A	N/A	N/A	N/A		0.06	0.00006	0.00020	1.70E-07		2.38E-05	
Total Metals							0.093	0.324				

USAF	Ozone estimate
3.10	ppm O3
3000	cfm
0.009	cfm O3
28.317	l/ft3
0.263	l/min
25.727	l/gmol @ 20 C, 1 atm
0.010	gmol/min
48	g O3/gmol
0.491	g/min
0.008	g/s
2.860	ug/m ³ model 1 hr ave
2.002	ug/m ³ model 8 hr ave
0.001	ppmv 1hr ave
0.001	ppmv 8 hr ave
	ppmv 1hr NAAQS
	ppmv 8 hr NAAQS