AP32 Section:	12.5.1
Background Chapter	3
Reference:	40
Title:	Stack test summary information and Title V permit for Cascade Steel Rolling Mills, Inc., McMinnville, OR. Testing conducted on August 9, 1991; May 20, 1994; March 3, April 6, August 1, September 13, and October 3, 1995; May 24 and October 22-23, 1996; May 15 and October 29-30, 1997; June 29, August 8, and October 8-9, 1998; April 15-16, October 21-22, and November 16, 1999; June 14, June 19, October 26-17, 2000; May 15-16 and October 30-31, 2001; February 26-27 and March 13, 2002. Received from Gary Andes, Oregon Department of Environmental Quality on April 30, 2002.

MELT SHOP BAGHOUSE SOURCE TEST RESULTS
CO & NO_X

Test Date	Run No.	Metal Tapped (tons)	Charge to Tap Time (min.)	Metal Produced (tons/hr)	CO Emissions		NO_x Emissions	
					Lbs/hr	Lbs/ton	Lbs/hr	Lbs/ton
3/3/95	1	94	82	68.8	212	3.05	38.8	0.56
	2	92	68	81.2	127	1.83	34.6	0.50
	3	94	79	71.4	227	3.27	32.4	0.47
8/1/95	1	83	65	76.6	147	1.91	35.2	0.46
	2	89	60	89.0	99	1.11	27.1	0.30
	3	99	74	80.3	193	2.40	39.3	0.49
5/15/97	0	90	89	60.7	409	6.74	39.4	0.65
	1	93	93	60.0	389	6.48	42.8	0.71
	2	94	55	102.5	248	2.42	46.0	0.45
	3	91	70	78.0	383	4.91	44.2	0.57
	4	97	68	85.6	373	4.36	43.3	0.51
	5	95	65	87.7	328	3.74	56.1	0.64
	6	94	74	76.2	298	3.91	46.3	0.61
8/8/98	1	94	61	92.5	169	1.83	28.5	0.31
	2	96	62	92.9	207	2.23	36.5	0.39
	3	96	61	94.4	164	1.74	36.2	0.38
4/16/99	1	96	75	76.8	268	3.49	51.3	0.67
	2	91	61	89.5	134	1.50	64.4	0.72
	3	96	53	108.7	263	2.42	49.9	0.46
	4	96	56	102.9	167	1.62	57.3	0.56
10/21/99	1	88	82	64.4	177	2.75	76.2	1.18
	2	93	66	84.5	222	2.63	42.8	0.51
	3	97	71	82.0	413	5.04	87.0	1.06
11/16/99	1	95	56	101.8	608	5.97	36.9	0.36
	2	93	85	65.6	520	7.93	32.2	0.49
	3	95	61	93.4	596	6.38	26.8	0.29
6/19/00	1	96	65	88.6	468	5.28	29.7	0.34
	2	98	72	81.7	328	4.01	17.5	0.21
	3	98	65	90.5	433	4.78	42.4	0.47
10/26/00	1	103	72	85.8	434	5.06	44.2	0.52
	2	96	89	64.7	286	4.42	54.3	0.84
	3	93	83	67.2	607	9.03	49.9	0.74
5/15/01	1	98	66	89.1	609	6.84	23.5	0.26
	2	108	67	96.7	647	6.69	33.4	0.35
	3	105	59	106.8	584	5.47	43.6	0.41
10/31/01	1	102	61	100.3	295	2.94	88.1	0.88
	2	100	57	105.3	229	2.17	90.4	0.86
	3	92	58	95.2	394	4.14	66.3	0.70
2/27/02	1	95	62	91.9	297	3.23	40.6	0.44
	2	102	68	90.0	456	5.07	59.6	0.66
	3	97	56	103.9	331	3.19	47.4	0.46

Sum	13739	163.98	1882.4	22.44
Maximum	647	9.03	90.4	1.18
Minimum	99	1.11	17.5	0.21
Average	335	4.000	45.9	0.547
Standard deviation		1.930		0.210

BACT set and modeling done for melt shop based on 3/3/95, 8/1/95, and 5/15/97 source test results. CO was modeled using an emission factor of 8.49 lb/ton (maximum result plus one standard deviation) while NO_x was modeled using an emission factor of 0.64 lb/ton (average result plus one standard deviation).

MELT SHOP BAGHOUSE SOURCE TEST RESULTS
PARTICULATE MATTER & LEAD

Test Date	Metal Tapped (tons/hr)	Airflow (dscfm)	Particulate Matter			Lead	
			Concentration (gr/dscf)	Emission (lb/hr)	Emission (lb/ton)	Emission (lb/hr)	Emission (% of PM)
9/13/95	86	379,443	0.00051	1.63	0.019	0.030	1.85
10/22/96	71	410,311	0.00040	1.39	0.020	0.067	5.28
At some time between these two source tests the roof monitor was closed on the east end of the melt shop.							
10/30/97	79	417,329	0.00074	2.64	0.033	0.049	1.89
10/8/98	81	425,668	0.00066	2.39	0.030	0.025	1.04
Additional 800 HP booster fan added in May 1999							
10/21/99	62	504,981	0.00050	2.17	0.035	---	---
10/26/00	60	439,909	0.00017	0.66	0.011	---	---
4 additional baghouse compartments added in April 2001							
10/31/01	82	549,754	0.00016	0.75	0.009	---	---

Because of the roof monitor closing between the 1996 and 1997 tests, the 1995 and 1996 test results are not indicative of current operations.

1997-2001	Avg.	0.0236
	Standard Dev.	0.0126
	Avg + std dev	0.0362

MELT SHOP BAGHOUSE SOURCE TEST RESULTS
SO_2 & VOC

Test Date	Metal Tapped (tons/hr)	Airflow (dscfm)	SO_2			VOC		
			Concentration (ppm)	Emission (lb/hr)	Emission (lb/ton)	Concentration (ppm)	Emission (lb/hr)	Emission (lb/ton)
3/3/95	66	382,812	2.19	8.36	0.127	10.83	8.22	0.125
8/1/95	68	334,129	1.57	5.03	0.074	---	---	---
At some time between these two source tests the roof monitor was closed on the east end of the melt shop.								
2/27/02	95	551,277	2.43	13.27	0.140	15.19	15.70	0.165
3/13/02	84	477,111	3.07	14.61	0.174	---	---	---

Because of the roof monitor closing between the 1995 and 2002 tests, the 1995 test results are not indicative of current operations.

MELT SHOP ROOF MONITOR SOURCE TEST RESULTS
PARTICULATE MATTER & LEAD

Test Date	Metal Tapped (tons/hr)	Airflow (dscfm)	Particulate Matter			Lead	
			Concentration (gr/dscf)	Emission (lb/hr)	Emission (lb/ton)	Emission (lb/hr)	Emission (% of PM)
10/3/95	81	582,661	0.0039	19.27	0.238	0.18	0.95
10/23/96	77	576,476	0.0040	19.85	0.258	0.21	1.04
At some time between these two source tests the roof monitor was closed on the east end of the melt shop.							
10/29/97	83	261,420	0.0042	9.43	0.114	0.23	2.48
10/9/98	84	210,012	0.0062	11.31	0.135	0.10	0.83
Additional 800 HP booster fan added in May 1999							
10/22/99	78	209,321	0.0039	7.04	0.090	---	---
10/27/00	84	165,282	0.0056	8.22	0.098	---	---
4 additional baghouse compartments added in April 2001							
10/30/01	89	228,505	0.0070	13.94	0.157	---	---

Because of the roof monitor closing between the 1996 and 1997 tests, the 1995 and 1996 test results are not indicative of current operations.

1997-2001	Avg.	0.1188
	Standard Dev.	0.0274
	Avg + std dev	0.1462

Melt shop roof monitor

- ladle transfer
- casting

REHEAT FURNACE #1 SOURCE TEST RESULTS
CO & NO_X

(retro fitted w/ Low NO_X burners since original Title V issuance)

Test Date	Natural Gas Usage (MM Btu/hr)	Metal Heated (tons/hr)	Airflow (dscfm)	NO_x Emissions		CO Emissions	
				Lbs/hr	Lbs/MM Btu	Lbs/hr	Lbs/MM Btu
8/9/91	98.2	91	42,700	20.8	0.202	1.87	0.018
5/20/94	136.7	105	52,140	27.6	0.202	3.19	0.023
6/29/98	95.9	89	41,143	14.9	0.156	0.0	0.0

REHEAT FURNACE #2 SOURCE TEST RESULTS
CO & NO_X

Test Date	Natural Gas Usage (MM Btu/hr)	Metal Heated (tons/hr)	Airflow (dscfm)	NO_x Emissions		CO Emissions	
				Lbs/hr	Lbs/MM Btu	Lbs/hr	Lbs/MM Btu
5/24/96	75.0	50	22,700	11.8	0.142	0.0	0.0
4/15/99	82.0	85	15,098	9.8	0.118	0.0082	0.00015
6/14/00	43.5	62	9438	4.8	0.111	0.0	0.0
5/16/01	86.2	70	16,023	11.2	0.129	0.0	0.0
2/26/02	112.2	97.7	21,064	15.0	0.134	0.030	0.00027

(Ultra low NO_x burners + flue gas recirculation used to control NO_x)

BILLET CUTTING VENT SOURCE TEST RESULTS
PARTICULATE MATTER

Test Date	Metal Cast (tons/hr)	Airflow (dscfm)	Particulate Matter		
			Concentration (gr/dscf)	Emission (lb/hr)	Emission (lb/ton)
4/6/95	86	77,062	0.0041	2.72	0.032

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT REVIEW REPORT

Cascade Steel Rolling Mills, Inc.
P.O. Box 687
McMinnville, OR 97128
Telephone: (503) 472-4181

PSEL CRED	SOURCE TEST	CMS	AMB MON	COMPL SCHED	SPEC COND	REPORT			EXCESS		NSPS	NSR	PSD	NESHAPS	SIZE	PUB NOTC
						A	S	M	R	N					TV	
	X	X				X	X		X		X				X	X

TABLE OF CONTENTS

LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS REVIEW REPORT

AI	Aggregate Insignificant
AQMA	Air quality management area
ASTM	American Society of Testing and Materials
BDT	Bone dry ton
CEMS	Continuous emissions monitoring system
CFA	Composites Fabricators Association
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
COMPL	Compliance
COMS	Continuous opacity monitoring system
COND	Condition
CRED	Credit
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic feet
EF	Emission factor
EPA	United State Environmental Protection Agency
EU	Emissions unit
FCAA	Federal Clean Air Act
gr/dscf	grains per dry standard cubic feet
HAP	Hazardous air pollutant
ID	Identification code
I&M	Inspection and maintenance
MB	Material balance
Mlb	1000 pounds
MON	Monitoring
NA	Not applicable
NESHAP	National emission standard for hazardous air pollutants
NO_x	Oxides of nitrogen
NSPS	New source performance standard
NSR	New source review
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	Operation and maintenance
PCD	Pollution Control Device
PM	Particulate matter
PM_{10}	Particulate matter less than 10 microns in size
PSD	Prevention of significant deterioration
PSEL	Plant Site Emission Limit
SCHED	Schedule
SPEC	Special
SO_2	Sulfur dioxide
ST	Source test
VE	Visible emissions
VMT	Vehicle mile traveled
VOC	Volatile organic compound

INTRODUCTION

1. In accordance with OAR 340-218-0120(1)(f), this review report is intended to provide the legal and factual
basis for the permit conditions. In most cases, the legal basis for a permit condition is included in the permit by citing the applicable regulation. In addition, the factual basis for the requirement may be the same as the legal basis. However, when the regulation is not specific and only provides general requirements, this review report is used to provide a more thorough explanation of the factual basis for the permit conditions.

PERMITTING ACTION

2. The proposed permit is a renewal of an Oregon Title V Operating Permit issued 9/1/98 and originally scheduled to expire 4/01/03. No changes have been made to the permit since its original issuance.

PERMITTEE IDENTIFICATION

3. Cascade Steel Rolling Mills, Inc. processes ferrous scrap metal (for example, auto bodies, machines, and appliances) to produce various steel products, such as reinforcing bar (rebar) for the construction industry, flat and round merchant bar for steel fabrication, and finished products, primarily fence posts and grape stakes.

   The steel mill was founded in 1968 and consists of a melt shop, two rolling mills, and supporting operations. International Mill Service, Inc. (IMS) owns and operates a slag processing plant located on Cascade Steel's property. The IMS activities are not addressed in this permit. The current mill melt shop capacity is 900,000 tons of steel production per year. The 70-acre facility is served by truck and rail (Southern Pacific Railroad).

FACILITY DESCRIPTION

4. Basic plant operations have remained unchanged since startup in 1968. Several of the production processes have been modified to increase production, improve efficiency, and reduce waste generation. Steel production consists of the following processes:

   - receiving and storing scrap ferrous metal;
   - melting the scrap ferrous metal in an electric arc furnace (EAF) and removing nonferrous impurities;
   - adjusting the molten metal chemistry with ferroalloys in a ladle furnace;
   - pouring the molten metal into a continuous caster to form billets;
   - reheating the billets and rolling them into flat or round metal stock; and
   - cutting and stamping the metal stock into the finished products.

   The following sections describe these processes.

   Scrap Yards

Scrap ferrous metal is transported to the scrap storage yards primarily by rail. Railcars with scrap enter the yard on two sets of track from the Southern Pacific rail line running along the southern edge of the mill. The main scrap storage yard measures 570 feet long by 100 feet wide and can accommodate 40,000 tons of scrap in piles up to 36 feet high. The main scrap storage yard has a 14-inch thick concrete base that captures all the stormwater runoff. The scrap is transported to the EAF using scrap buckets, which are filled by electromagnets that pick up the scrap. The maximum capacity of this transfer operation is 3300 tons of scrap per day and approximately 990,000 tons of scrap per year. There is also a secondary scrap storage area at which up to twice as much scrap can be stockpiled prior to transfer to the primary pile. The secondary scrap storage area can be expanded in area until it is approximately two times as large as the main pile.

Air pollutant emissions in the scrap yard are primarily fugitive particulate matter generated during transfer operations.

Melt Shop

Electric Arc Furnace

The melt shop consists of three major processes: the electric arc furnace (EAF), the ladle furnace, and the continuous caster. The scrap from the scrap storage yard is transferred into the EAF. The EAF has a maximum steel production capacity of 3000 tons/day. The entire melt shop has a nominal steel production capacity of 900,000 tons/year. The charge bucket deposits the scrap into the EAF at a rate of about two charges per hour (a charge is one charge bucket load full of scrap). The EAF processes about 24 heats per day. Each heat consists of one initial charge and one or two backcharges (additional introduction of scrap). Oxygen can be injected directly into the melt (oxygen lancing). Limerock, alloys, and carbon, in the form of coal or coke, are also added to arrive at the specified metallurgical properties in the melt. The EAF has four auxiliary burners that are fueled by natural gas. The burners keep the melt warm in the EAF.

After the heat is completed, the molten steel is poured into a ladle from a bottom tap in the EAF. Tapping is estimated to take about 2 to 3 minutes per heat. Typical tap size (normal volume of molten metal in the EAF) is 95 tons, with 15 tons maintained as a liquid heel (the amount always left in the bottom of the EAF).

Melted nonferrous scrap constituents, which are lighter than the molten metal, float to the top of the EAF vessel and are decanted off into a slag pit. Here, the solidified slag is broken into approximately 1- to 4-inch pieces that resemble volcanic rock fragments. The slag is gray and has sharp edges. Slag containing sufficient residual ferrous material is reclaimed by magnet and returned to the EAF.

Except during charging or tapping, emissions generated in the EAF are collected by a duct (direct shell evacuation system or DSE, sometimes also called DEC) that penetrates the cover of the EAF and are vented through the baghouse units. When the EAF is charged with scrap, the cover is removed and emissions are collected by the canopy hood or scavenger ducts. Both the canopy and the scavenger ducts are vented through the baghouse units. In the baghouses, the particulates are filtered and collected with a bag filtering system. The filtered air is discharged to the atmosphere. The collected baghouse dust is shipped offsite as a hazardous waste (waste code K061).

Ladle Furnace

After initial melting and gross refining of the metal in the EAF, the chemistry of the molten metal is fine-tuned in the ladle furnace (LF) which also utilizes an electric arc to melt and refine steel. The following additives are used.

- Lime in the form of calcium oxide
- Carbon in the form of coke or coal
- Elemental magnesium
- Elemental aluminum
- Ferrous silicon
- Others

Alloys are stored in hoppers partially under the fugitive emissions collection canopy inside the melt shop and fed directly to the process equipment.

The lime and carbon may be added in the ladle furnace for the finer chemical adjustments (refining). After the final chemistry and temperature adjustments are made, the ladle is moved to the casting area.

The ladle furnace emissions are captured by the canopy hood. Transfer processes involving the ladle furnace generate fugitive emissions which may partially be captured by the canopy hood.

Continuous Caster

From the ladle furnace, the molten metal is transferred with a transfer ladle to a tundish and continuous caster. Natural gas-fired heaters are used to maintain the molten metal as a liquid during ladle transfer. The molten metal is continuously poured from the transfer ladle into a tundish (a reservoir in the top part of a mold into which molten metal is poured which has four additional natural gas-fired heaters). Molten metal funnels from the tundish into a continuous caster with a series of five molds. The solidified metal exiting the bottom of the mold is cut into metal billets (semifinished bars of metal). The billets are sprayed with water for cooling and scale removal. The scale material consists of iron oxide flakes that form during the casting and cooling processes.

After cooling and scale removal, the billets either are transferred directly to the rolling mill for further processing or are stored in a billet yard until further processing or sale.

Emissions from ladle transfer and continuous casting are vented through the melt shop roof monitor. Additional emissions are associated with the gas torches used to cut billets at the caster. These emissions are also fugitive, with the PM emissions being accounted for under billet casting while the gaseous emissions are accounted for in the natural gas usage for the melt shop.

Old Rolling Mill

Either from the billet storage yard (purchased and/or produced onsite) or directly from the continuous caster, the billets are transferred to the reheat furnace, where they are heated to approximately 2,000°F. From the reheat furnace, the billets are rolled into various metal products. The old rolling mill has a maximum capacity of 51 tons/hour and 450,000 tons/year.

The old rolling mill emissions are attributable to the reheat furnace, mill scale handling, and associated cleaning equipment (steam cleaner, degreasers). The old reheat furnace was retrofitted with low NO_x burners since the original Title V permit issuance. The old rolling mill also generates minor quantities of emissions from the hydraulic fluid storage tanks outside the building.

New Rolling Mill

The new rolling mill was a major expansion in 1996. The new mill produces various metal products including low carbon steel and medium carbon steel. The new mill can process up to 110 tons/hour to

make deformed bars, smooth rounds, rebar coils, wire rod, and bar-length products. The process flow for the new mill will be similar to the old mill.

The new rolling mill has five main components, the first being a new reheat furnace. Maximum production through the furnace will be 525,000 tons per year. Ultra-low NO_x burners and flue gas recirculation are used to control emissions of NO_x from the new reheat furnace.

There are four other components of the new mill:

- **Rod and bar mill.** The mill contains 18 stands with complete loopers and shears. Billets are de-scaled using water. The design finish speed is 3,500 feet per minute.

- **Cooling bed.** The cooling bed is 260 feet long and 35 feet wide. It is located on the south side of the old scrap yard and is equipped with a stacker and three banding machines.

- **Rod block.** The ten-stand rod block is equipped with two pinch rolls, one looper, one rod block, one laying head, one coil former, and one coil handling line.

- **Auxiliaries.** The new rolling mill includes pulpits, roll shop, lathes, air compressors, offices, and support equipment. A new wastewater cooling tank and treatment system serve both the new and existing rolling mills.

The new reheat furnace, fired with natural gas, is the only major source of air pollution in the new mill. Emissions generated from the new reheat furnace include CO, NO_x, VOCs, PM, SO_2, and HAPs. Minor emissions result from the four other components of the new mill and include PM, VOCs, and HAPs.

Auxiliary Facilities

The auxiliary facilities consist of the fence post building and the merchant bar building.

The sources of emissions at these facilities are cutting and grinding equipment, cranes and stackers, straighteners, as well as gas and diesel tanks and pumps. Some facilities also have welding operations, degreasers, pumps, compressors, and electric dryers. These emissions include PM, VOCs, and HAPs. The fence post building also has a paint dip tank where the posts are painted and then dried by a natural gas fired dryer, which replaced an electric dryer in 1996.

Maintenance Facilities

Several shops are required for maintaining the mill site and its equipment. These shops include the maintenance and fabrication building, the mobile equipment shop, die shop, the machine shop, the electric shop, and the steam cleaning area.

Emissions from these facilities may be attributed to natural gas space heaters, spot welding, grinders, drill presses, hydraulic presses, electric welding ovens, or degreasers. These sources emit uncontrolled, fugitive emissions of PM, VOCs, and HAPs.

The mobile equipment shop also has an underground storage tank for used oil which is a source of VOC emissions.

A small sandblasting unit with a baghouse was added at the facility in 2001.

IMS Slag Handling

International Mill Service, Inc. (IMS), owns and operates a slag crushing and screening plant located on Cascade Steel's property. IMS operates the plant under its own Air Contaminant Discharge Permit (36-1033) issued by the Department. Cascade Steel does not control IMS's operations; therefore, the IMS operations are not part of the Cascade Steel source, and its emissions are not addressed in this permit. However, to the extent IMS handles slag on Cascade Steel property outside the IMS plant, the emissions from these IMS activities are included in this application.

EMISSIONS UNITS AND POLLUTION CONTROL DEVICE IDENTIFICATION

5. Emissions units at this facility are designated as follows:

Emission Unit 1 (EU-1), Melt Shop Baghouses

Emissions unit EU-1 consists of devices and processes within the melt shop which emit pollutants through the EAF baghouses. These devices and processes include the EAF charging and melting, EAF natural gas-fired auxiliary heaters, EAF tapping, ladle transfer to the ladle furnace, ladle preheater, alloy addition to the ladle furnace, and ladle furnace melting. Charge buckets deposit scrap from the scrap yard into the EAF at a rate of about two charges per hour. The EAF processes about 22 heats per day. Oxygen is added directly to the melt (oxygen lancing). Limerock, coke, and coal are also added to arrive at the specified metallurgical properties in the melt. The EAF has four auxiliary burners that are fueled by natural gas. The burners function to keep the melt warm in the EAF.

After the heat is completed, the molten steel is poured into a ladle from a bottom tap in the EAF. Tapping is estimated to take about 2 to 3 minutes per heat. A ladle auxiliary heater is used to keep a liquid layer inside the ladle during idle conditions. The ladle transfers molten steel to the ladle furnace where alloys are melted into the ladle by the electric arc process. The following additives are used:

- Lime in the form of calcium oxide
- Carbon in the form of coke and/or coal
- Elemental magnesium
- Elemental aluminum
- Ferrous silicon
- Others

Alloys, additives, carbon, and coke are stored in hoppers partially under the fugitive emissions collection canopy inside the melt shop and are fed directly to the process equipment.

Pollutant emissions generated in the EAF are evacuated directly from the EAF cover into baghouses BH-1 and BH-1A through the DSE system.

Pollutants emitted during charging or tapping activities are released directly into the melt shop. An overhead canopy and scavenger vent collect emissions during these periods. The emissions from the overhead canopy and scavenger vent are vented through the baghouses BH-1 and BH-1A. An additional canopy and baghouse BH-1B were installed in 2002 to collect additional EAF and melt shop emissions from the west end of the shop.

The ladle furnace and ladle heater emissions are also collected and vented through the baghouses BH-1 and BH-1A.

Emissions Unit 2 (EU-2), Melt Shop Baghouse Dust Handling

Particulate matter from EU-1 emission sources is collected by the baghouses and transferred to a baghouse dust hopper. The baghouse dust hopper is emptied into a railcar using an enclosed screw conveyer and disposed of as a hazardous waste (waste code K061). Fugitive emissions of particulate matter are released to atmosphere during baghouse dust loadout.

Emissions Unit 3 (EU-3), Melt Shop Fugitives

Melt shop fugitives are the pollutants which are not captured by the baghouses and are primarily vented through the west end melt shop roof monitor. Pollutants are emitted during ladle heating and transfer and continuous casting.

From the ladle furnace, the molten metal is transferred with a transfer ladle to a tundish and continuous caster. Two horizontal, natural gas-fired heaters are used to maintain the molten metal as a liquid during ladle transfer. The molten metal is continuously poured from the transfer ladle into a tundish (a reservoir in the top part of a mold into which molten metal is poured, which has four additional natural gas-fired heaters). Molten metal funnels from the tundish into a continuous caster with a series of five molds. During casting, the ladle is covered and vented through the baghouse most of the time. Fugitive particulate emissions during ladle transfer and casting emit through the roof monitors.

Emissions Unit 4 (EU-4), Melt Shop Vertical Preheater

Emissions unit EU-4 is a vertical preheater which provides additional heating of the ladle during transfer between the ladle furnace and the tundish. This preheater is fueled by natural gas and vents to a stack on the melt shop roof.

Emissions Unit 5 (EU-5), Melt Shop Slag Handling

During melting of scrap metal in the EAF, melted nonferrous scrap constituents, which are lighter than the molten metal, float to the top of the EAF vessel and are decanted off into a slag pit. Here, the solidified slag is broken into fragments and collected with a front-end loader by a slag contractor (IMS). Slag containing sufficient residual ferrous material is reclaimed by magnet and returned to the EAF. Fugitive emissions of particulate matter occur during the slag handling.

Emissions Unit 6 (EU-6), Rolling Mill

Emissions unit EU-6 consists of a rolling mill where metal billets (semifinished bars of metal) from storage or the melt shop are reheated and rolled into merchant bar. Either from the billet storage yard or directly from the continuous caster, the billets are transferred to a reheat furnace. Pollutant emissions from the natural gas-fired reheat furnace emit through a stack on the rolling mill roof. From the reheat furnace, the billets are rolled into either round or flat metal stock. The rolled stock is sprayed with water for cooling and scale removal immediately after leaving the reheat furnace. The scale material consists of iron oxide flakes that form during the casting and cooling processes.

Emissions Unit 7 (EU-7), Rod and Bar Mill

Emissions unit EU-7 consists of a new rod and bar rolling mill. The new rolling process is similar to the current rolling process. The new mill produces wire rod, rebar coils, and other bar-length products.

Emissions Unit 8 (EU-8), Fence Post Building

Fence post coating is conducted in the fence post building. Fence posts produced from the rolling mill are coated with latex paint in a dip tank, then dried by a natural gas fired heater. VOC emissions from the dip tank and curing heater are vented through a fume hood to the roof of the fence post building.

Emissions Unit 9 (EU-9), Scrap Yard

Scrap ferrous metal is transported to the scrap storage yard primarily by rail. Railcars with scrap enter the yard on two sets of track from the Southern Pacific rail line running along the southern edge of the mill. The scrap storage yard can accommodate 40,000 tons of scrap. The scrap is transported to the EAF using scrap buckets, which are filled by electromagnets that pick up the scrap. The maximum capacity of this transfer operation is 3300 tons scrap/day.

Air pollutant emissions in the scrap yard are primarily fugitive particulate matter generated during transfer operations.

Emissions Unit 10 (EU-10), Billet Cutting

Emissions unit EU-10 consists of five billet cutting torches. The torches are fueled by natural gas and operate approximately 28 seconds per cut. Billets from the continuous castor are cooled, then cut into 40-foot segments. Fugitive particulate emissions from billet cutting are emitted adjacent to the west end of the Melt Shop Building exterior. Fugitive gaseous emissions are accounted for in the total natural gas combustion in the melt shop. After cutting, billets are transferred to a cooling bed, then to the rolling mills.

Emissions Unit 11 (EU-11), Unpaved Roads

Approximately 20 percent of vehicle traffic at the plant site occurs on unpaved roads. Vehicles include delivery trucks, product transportation trucks, and maintenance vehicles. Fugitive particulate matter emissions occur from vehicle traffic.

Aggregate Insignificant Activities

The following activities which are present at the facility are insignificant in the aggregate:

- PM, PM_{10}, CO, NO_x, SO_2, VOC, and HAPs from the LPG flare;
- PM and PM_{10} from mill scale handling;
- PM and PM_{10} from the merchant bar band saw;
- PM and PM_{10} from the merchant bar straightener;
- PM and PM_{10} from the sandblasting maintenance baghouse;
- PM, PM_{10}, CO, NO_x, SO_2, VOC, and HAPs from the fencepost building natural gas dryer.

Categorically Insignificant Activities

Categorically insignificant activities at the facility include the following:

- Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under Divisions 200 through 268 of Chapter 340, or less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year

- Evaporative and tail pipe emissions from on-site motor vehicle operation
- Distillate oil, kerosene, and gasoline fuel burning equipment rated at less than or equal to 0.4 million Btu/hr
- Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr
- Office activities
- Janitorial activities
- Groundskeeping activities including, but not limited to building painting and road and parking lot maintenance
- Instrument calibration
- Maintenance and repair shop
- Automotive repair shops or storage garages
- Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment
- Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities
- Temporary construction activities
- Warehouse activities
- Accidental fires
- Air vents from air compressors
- Demineralized water tanks
- Electrical charging stations
- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking
- Electric motors
- Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids
- On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment
- Emissions from wastewater discharges to publicly owned treatment works (POTW) provided the source is authorized to discharge to the POTW, not including on-site wastewater treatment and/or holding facilities
- Storm water settling basins
- Fire suppression and training
- Hazardous air pollutant emissions of fugitive dust from paved and unpaved roads except for those sources that have processes or activities that contribute to the deposition and entrainment of hazardous air pollutants from surface soils
- Paved roads and paved parking lots within an urban growth boundary
- Health, safety, and emergency response activities
- Industrial cooling towers that do not use chromium-based water treatment chemicals
- Oil/water separators in effluent treatment systems
- Combustion source flame safety purging on startup

EMISSIONS LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING

STATE REQUIREMENTS

6. The following Chapter 340 Oregon Administrative Rules that have specific requirements (e.g., emissions limits or standards, monitoring, recordkeeping, or reporting requirements) have been determined to be applicable to this facility. The "Oregon Title V Monitoring and Testing Guidance" was used to determine the periodic monitoring, inspection and maintenance schedules, and testing requirements.

6.a. Division 208-0110(2):
The 20% opacity limit applies to all emissions units and activities at the facility, including the categorical and aggregate insignificant activities.

Minimal or no visible emissions have been noted by company staff during the past VE monitoring or DEQ staff during past inspections for some of the emission sources at the facility. For these emissions units (EU-2, EU-4, EU-5, EU-6, EU-7, and EU-10), the source is to conduct quarterly VE tests. For EU-9 and EU-11, the source is to conduct weekly property boundary VE tests for excessive fugitive emissions. In addition, for emissions unit EU-1, the facility is to conduct daily opacity readings as required by the NSPS, and for EU-3 weekly opacity readings are required.

6.b. Division 226-0210(1)(b):
The 0.1 gr/dscf particulate matter emission limit applies to all non-fugitive emissions units constructed at this facility after June 1970 which includes emissions units EU-1, EU-3, EU-4, EU-6, and EU-7. For emissions units EU-1 and EU-3, the source is to conduct annual source tests. For the other emissions units the facility is to keep records of fuel usage. No visible emissions have ever been noted from these emission units in the past by company or DEQ staff as they are natural gas fired.

6.c. Division 208-0210(2):
Since this facility is located in a special control area, the requirement to minimize fugitive emissions by taking preventative measures applies. Compliance will be demonstrated by maintaining a complaint log for any fugitive emission complaints.

6.d. Division 222-0020:
Plant Site Emission Limits are required. Compliance will be demonstrated by monthly and annual calculations utilizing production or process data and specified emission factors or by verifying that production levels were below those used to calculate the PSEL.

6.e. Division 208-0300:
The odor nuisance rule applies to the facility, but the requirement is only enforceable by the state. The source is required to immediately investigate any odor compliant and to respond to the complainant within 24 hours. A record is to be maintained of complaints received, investigation results, and actions taken.

6.f. Division 208-0450:
The particulate matter fallout nuisance rule applies to this facility, but the requirement is only enforceable by the state. The source is required to immediately investigate any particulate matter fallout complaint and respond back to the complainant within 24 hours. A record is to be maintained of complaints received, investigation results, and actions taken.

6.g. As identified earlier in this review report, this facility has insignificant emissions units (IEUs). For

the most part, the standards that apply to IEUs are opacity (20% limit) and particulate matter (0.1 gr/dscf limit). The Department does not consider it likely that IEUs could exceed an applicable emissions limit or standard because IEUs are generally equipment or activities that do not have any emission controls (e.g., small natural gas fired boilers and heaters) and do not typically have visible emissions. Since there are no controls, no visible emissions, and the emissions are less than one ton per year, the Department does not believe that monitoring, recordkeeping, or reporting is necessary for assuring compliance with the standards.

FEDERAL REQUIREMENTS

7. The applicability of the following federal requirements is as follows:

7.a. Maximum Achievable Control Technology (MACT)
There are no MACT standards currently applicable to this facility. EPA is still in the process of establishing MACT standards for the iron and steel industry but they will not be applicable to this facility since it is not a major source of HAP emissions.

7.b. National Emissions Standards for Hazardous Air Pollutants (NESHAPS)
The facility is not subject to federal regulations for NESHAPS.

7.c. New Source Performance Standards (NSPS)
The facility is subject to the NSPS for electric arc furnaces, Subpart AAa, because the existing electric arc furnace was constructed after 8/17/83. The original Title V permit contained the appropriate NSPS limits and monitoring requirements. However, on 5/3/99, the EPA adopted changes to the NSPS rules, particularly with regard to compliance monitoring. The revised rules now allow the source to conduct daily observations of melt shop emissions using EPA Method 9 as an alternative to monitoring the internal EAF static pressure. The company has requested to use the new alternative monitoring procedure and the permit will be revised to remove the former requirements for measuring EAF static pressure.

7.d. New Source Review (NSR)/Prevention of Significant Deterioration (PSD)
This source is not subject to federal regulations for NSR/PSD at this time because the facility's projected emissions are less than the Significant Emission Rate above the netting basis values for all pollutants. The facility went through NSR/PSD for CO and NO_x during the original Title V permit issuance and a new netting basis for those pollutants was established at that time. BACT emission limits for CO and NO_x established during the PSD action are contained in the permit for EU-1. The source also went through NSR/PSD for Pb during the 1990 ACDP modification. However, the current recalculation of baseline lead emissions is greater than the PSD approval level, such that the baseline Pb emission rate will be used as the netting basis rather than the PSD approval level.

7.e. Compliance Assurance Monitoring (CAM)
A CAM analysis is required for the facility at this renewal. However, as shown in the attached CAM analysis table, the only emission unit at the facility to which CAM applies is EU-1, the melt shop baghouses. CAM is satisfied by the existing continuous baghouse pressure drop monitoring conducted on each baghouse compartment. Although CAM does not apply to other emissions units, periodic monitoring conditions are contained in the permit for all emission units in order to

demonstrate a reasonable assurance of compliance with all applicable limits and standards.

CHANGES FROM LAST PERMIT

8. The emission unit description for EU-1 was revised to include the two new baghouse sections BH-1A and BH-1B. The sandblasting baghouse was added as a component of the Aggregate Insignificant sources. The EAF was removed from the listing under EU-3 as the roof monitor will no longer receive any EAF emissions after baghouse BH-1B is installed.

9. The general opacity and grain loading standards were relocated from the Facility Wide section to the Insignificant Activities and Emission Limits and Standards section of the permit.

10. The entire permit was reformatted to place the testing, monitoring, and recordkeeping requirements immediately after each applicable limit or standard for each emissions unit and each emissions unit has its own section of the permit. The Non-Applicable Requirements and General Conditions sections were redone according to the current Title V permit template and all OAR references renumbered according to the current rules.

11. The nuisance and particle deposition standards from Division 208 were reworded according to the new rule language.

12. The condition and federal citations regarding the accidental release provisions of 40 CFR Part 68 were removed from the permit as the rules are not applicable to the facility.

13. The NO_x limit for EU-1 (determined by BACT analysis during the original Title V issuance) was revised to 0.64 lb/ton metal as an annual average as that time period was the one used to show compliance with the NAAQS and PSD increments. The short-term hourly emission value was incorrectly placed into the original Title V permit.

14. The limitation on the number of baghouse bags which could be charged to the EAF during each charge was removed from the permit. The prior limitation was apparently based on the Department's Interim Toxics Policy which was utilized by the Department during the ACDP renewal in 1990. This policy is no longer used since the HAPs rules and list of pollutants was promulgated by EPA. Potential fluoride emissions were the concern as they exceeded the threshold value used by the Interim Toxics Policy. Although hydrogen fluoride is a listed HAP, the Department does not set HAP PSELs. However, fluoride is also a regulated pollutant but a PSEL for fluorides will not be set in this permit action as the anticipated emissions are less than the Department's de minimis value. Although the limitation on the number of bags burned will be removed from the permit, the permittee will still be required to monitor and record the number of bags burned on a daily basis.

15. The annual restriction on NO_x emissions from reheat furnace #2, EU-7, will be removed from the permit and incorporated into the plantwide PSEL, as the plantwide PSEL is now a PTE limit. The plantwide PSEL is compared to the netting basis and the SER for determination whether NSR/PSD would apply to the facility.

16. The VOC content of paint limitation for fence post painting in EU-8 will be removed from the permit as the limitation is not applicable to the emissions unit since the facility or emissions unit is not subject to any RACT requirements. VOC emissions from the painting process are accounted for in the plantwide PSEL.

17. In accordance with the new Department rules which became effective on 7/1/01, short-term PSELs will be eliminated from the permit and the annual PSEL will become a 12-month rolling total. The company will be

required to keep records and calculate the PSEL on a monthly basis to determine the 12-month rolling total.

18. Requirements for ambient monitoring on the facility property and operation of an on-site meteorological station at the facility are being removed from the permit as the permittee has satisfied the previous permit requirements and the Department believes that on-site dust control measures are adequate to control fugitive dust and eliminate the need for additional monitoring.

19. As described earlier in this review report, the NSPS standards which apply to the facility were revised by EPA in 1999 and allow the facility to document compliance with the standards through opacity readings rather than also measuring the static pressure in the EAF. Conditions regarding the monitoring of the static pressure in the EAF will be eliminated in this permit and the opacity reading requirement will continue. The NSPS rule regarding opacity from the melt shop roof monitor will be eliminated in the permit as the company has recently installed a barrier in the melt shop and added more suction to the EAF section of the melt shop such that there are no EAF emissions possible from the melt shop roof monitor. As such no daily opacity monitoring of the east section of the melt shop is required. Rather, the west end of the melt shop will only have caster and ladle transfer emissions possible and opacity monitoring will be required on the west roof monitor on a weekly basis.

20. Emission factors for all criteria and hazardous air pollutants have been revised to reflect current AP-42 or Department emission factors. In addition, emission factors for some sources at the facility have been revised based on the source tests conducted since the original Title V permit issuance. All revised emission factors have been utilized to calculate the proposed emissions and, where appropriate, used to recalculate the baseline emission level. These emission factors are to be utilized in the calculations used to demonstrate compliance with the PSEL.

21. Unassigned emissions at the facility will be reduced on 7/1/07 to the SER for any pollutant that has unassigned emissions in accordance with the Department rules which became effective on 7/1/01.

22. The condition and citations regarding the Source Emission Reduction Plan requirements during air pollution episodes were removed as the rules are not applicable to the facility since it is not in an AQMA.

23. The 10% opacity limitation for the reheat furnaces was changed to 20% as the 10% limit does not exist in the Department's rules. Although this limit was in the original Title V permit as a carryover from the ACDP, there is no basis given in the original ACDP issuance for this lower limit and the value may have been a typo in the original ACDP.

24. The responsible official's name was eliminated from the cover page and the responsible official's title retained as has been the practice in recent Title V renewals.

PLANT SITE EMISSION LIMITS (PSEL)

25. Baseline emissions, proposed plant site emission limits, and components of the PSEL are shown below. Emission calculations for individual devices and emissions units are found in the appendices.

	Baseline Emission	Netting Basis Emission	Plant Site Emission Limit (PSEL)		
			Previous	Proposed	PSEL

Pollutant	Rate 1978* (tons/yr)	Rate (tons/yr)	Date	Assigned PSEL (tons/yr)	PSEL (PTE) (tons/yr)	Change From Last Permit (tons/yr)
PM	306	306	1978	205	142	-63
PM_{10}	223	223	1978	166	108	-58
CO	277	2394	1998**	2394	2394	-0-
NO_x	80	387	1998**	387	387	-0-
SO_2	55	55	1978	43	73	+30
VOC	54	54	1978	74	92	+18
Pb	6.1	6.1	1978***	3	1.3	-1.7
F****	-0-	-0-	1978	---	---	---
Hg****	0.0012	0.0012	1978	---	---	---

*The baseline emission rates have been changed from the original Title V issuance due to new emission factors and the use of new factors for SO_2 from the EAF. Production data for the baseline period has also been changed based on new information from Cascade Steel.

**The netting basis for CO and NO_x was reestablished in 1998 during a PSD approval in the original Title V permit for the facility. Although source tests since then have shown somewhat lower CO and NO_x emissions from the EAF, the PSEL will be set at the netting basis level established in 1998.

***Although the facility went through NSR/PSD in 1990 for Pb, recalculation of Pb emissions in the baseline period now exceed the PSD approval level (1.3 tons/yr) and the baseline Pb level will now be used to represent the netting basis.

****Because the anticipated F emissions (0.139 ton/yr) and Hg emissions (0.528 lbs/yr) are less than the Department's de minimis levels (0.3 and 1.0 tons/yr, respectively) no PSELs will be established for those pollutants. No fluoride emissions are assumed in the baseline period.

In accordance with the Department rules which took effect on 7/1/01, short-term PSELs will be eliminated in this permit action and the annual PSEL will become a 12-month rolling total.

26. Components of the PSEL are as follows until July 1, 2007:

Pollutant	PSEL (tons/yr)	Unassigned Emissions (tons/yr)	Credits (tons/yr)
PM	142	164	-0-
PM_{10}	108	115	-0-
CO	2394	-0-	-0-
NO_x	387	-0-	-0-
SO_2	73	-0-	-0-
VOC	92	-0-	-0-
Pb	1.3	4.8	-0-

After July 1, 2007 the components of the PSEL are as follows:

Pollutant	PSEL (tons/yr)	Unassigned Emissions (tons/yr)	Credits (tons/yr)
PM	142	25	-0-
PM_{10}	108	15	-0-
CO	2394	-0-	-0-
NO_x	387	-0-	-0-
SO_2	73	-0-	-0-
VOC	92	-0-	-0-
Pb	1.3	0.6	-0-

The reduction in unassigned emissions after 7/1/07 is in accordance with the Department rules adopted on 7/1/01 which requires that all unassigned emissions be reduced to no more than one SER at that time.

A minor permit modification application is required to move unassigned emissions into the PSEL.

SIGNIFICANT EMISSION RATE ANALYSIS

27. The source is located in an area that is in attainment for all pollutants.

28. The source is located within 100 kilometers (62 miles) of the Mt. Hood Wilderness Area, a Class I air quality protection area, and the Columbia River Gorge National Scenic Area (Class II but treated as Class I).

29. The source is located approximately 21 kilometers to the southwest of the Portland ozone and carbon monoxide maintenance areas and approximately 23 kilometers to the northwest of the Salem ozone and carbon monoxide nonattainment areas.

Pollutant	SER (tons/yr)	Requested increase over previous netting basis (tons/yr)	Increase due to utilizing capacity that existed in the netting basis period (tons/yr)	Increase due to physical changes or changes in the method of operation (tons/yr)
PM	25	-0-		
PM_{10}	15	-0-		
CO	100	-0-		
NO_x	40	-0-		
SO_2	40	18		18
VOC	40	38		38
Pb	0.6	-0-		
F	3	-0-		
Hg	-0-	-0-		

30. The proposed PSELs are either less than the netting basis or less than the Significant Emission Rate (SER)

over the netting basis for all pollutants and no further air quality analysis is required.

31. The following equipment existed in the 1978 baseline period:

31.a. EU-8 fence post building and paint dip tank (lower VOC paints now used)
31.b. EU-9 scrap yard
31.c. EU-11 unpaved roads (several roads have been paved since 1978)

32. The following physical changes or changes in method of operation have occurred since the 1978 baseline period:

32.a. EU-1 through EU-5 and EU-10 added in 1990 (SO_2, CO, NO_x, PM, PM_{10}, VOC, Pb, F, Hg emissions (CO and NO_x netting basis was reestablished in 1998))
32.b. EU-7 reheat furnace #2 added in 1996 (SO_2, CO, NO_x, PM, PM_{10}, VOC emissions)
32.c. EU-8 natural gas fired paint dryer (AI) added in 1996 (SO_2, CO, NO_x, PM, PM_{10}, VOC emissions)
32.d. AI LPG flare added in 1992 (SO_2, CO, NO_x, PM, PM_{10}, VOC emissions)
32.e. AI Sandblasting baghouse added in 2001 (PM, PM_{10} emissions)
32.f. EU-6 reheat furnace #1 had low NO_x burners added in 1999

HAZARDOUS AIR POLLUTANTS

33. The facility is not a major source for HAPs. Estimated annual emissions of HAPs for the proposed operating period are as follows:

Pollutant	Tons/year
Arsenic compounds	0.0002
Benzene	5.8520
Beryllium compounds	0.00001
Cadmium compounds	0.0328
Chlorobenzene	0.3780
Chloromethane	0.2943
Chromium compounds	0.0330
Cobalt compounds	0.0001
Dichlorobenzene	0.0012
Ethylbenzene	0.2700
Ethylene glycol	3.415
Formaldehyde	0.0738
Hexane	1.7703
Lead compounds	1.25
Manganese compounds	0.7391
Mercury compounds	0.0026
Napthalene	0.0006
Nickel compounds	0.0484
Polycyclic organic matter	0.00009
Selenium	0.00002
Styrene	0.6390
Toluene	0.9841
Vinyl chloride	0.3780
Xylenes	0.2250

TOTAL	16.385

GENERAL BACKGROUND INFORMATION

34. A Land Use Compatibility Statement was signed by the City of McMinnville on 4/13/95.

35. Other permits issued or required by the Department of Environmental Quality for this facility include a Stormwater Permit No. 1200H and an NPDES Permit No. 100635. The facility is a large quantity hazardous waste generator, primarily due to the EAF baghouse dust which is a listed hazardous waste.

36. The facility was inspected on 9/7/01, 6/15/01, 9/8/00, 6/23/00, 9/20/99, 6/28/99, 4/19/99, and 9/25/98 and was found to be in compliance with all existing permit conditions except as noted in the Notices of Noncompliance described in item 38 below.

37. Since the original Title V issuance, no air quality complaints have been received concerning the facility.

38. No formal enforcement actions have been taken against the source since the original Title V issuance. A Notice of Noncompliance was issued on 3/22/99 for minor violations of monitoring requirements which were corrected. A Notice of Noncompliance was also issued on 7/3/01 for minor violations of monitoring requirements and opacity limits which have since been corrected.

RECORDKEEPING REQUIREMENTS

39. The permit includes requirements for maintaining records of all testing, monitoring, inspection and maintenance activities, and production information necessary for assuring compliance with applicable requirements, and calculating monthly and annual plant site emissions.

40. Recordkeeping requirements for specific emissions units include the following:

EMISSIONS UNIT	RECORDKEEPING REQUIREMENT
Facility Wide	1. Fugitive dust, odor, and particulate deposition complaints and any corrective actions taken.
EU-1 Melt Shop Baghouses	1. Daily opacity readings and any corrective actions taken. 2. Source test results. 3. Once per shift fan motor amperes and damper positions. 4. Monthly inspections and maintenance performed. 5. Baghouse pressure drop action level deviations and corrective actions taken. 6. Number of baghouse bags charged to the EAF daily. 7. Monthly and annual amount of steel produced in EAF.
EU-2 Melt Shop Baghouse Dust Handling	1. Quarterly VE and opacity readings and any corrective actions taken. 2. Monthly and annual amount of baghouse dust handled.
EU-3 Melt Shop Fugitives	1. Weekly opacity readings and any corrective actions taken. 2. Source test results.
EU-6 and EU-7 Reheat Furnaces	1. Quarterly VE and opacity readings and any corrective actions taken. 2. Monthly and annual fuel usage.

EU-4 Vertical Preheater	1. Quarterly VE and opacity readings and any corrective actions taken. 2. Monthly and annual fuel usage.
EU-5 Melt Shop Slag	1. Weekly VE and opacity readings and any corrective actions taken.
EU-8 Fence Post Building	1. Monthly and annual volume and VOC content of coatings used.
EU-9 Scrap Yard	1. Weekly VE and opacity readings and any corrective actions taken. 2. Monthly and annual amount of scrap prepared and handled.
EU-10 Billet Cutting	1. Quarterly VE and opacity readings and any corrective actions taken.
EU-11 Unpaved Roads	1. Weekly VE and opacity readings and any corrective actions taken.
PSEL	1. Monthly and annual records of specific operating parameters and emission Calculations.

REPORTING REQUIREMENTS

41. Reporting requirements include semi-annual compliance certifications and annual reporting of operating parameters, production values, excess emissions events, and emission fee reports.

PUBLIC NOTICE

42. Because this is a renewal of a Title V permit and because emissions of SO_2 and VOCs will be increased from the last permit, the permit will put on public notice from June 26, 2002, to July 31, 2002.

EMISSIONS DETAIL SHEETS

43. Emission calculation details for individual devices and emissions units are provided in Appendix A (baseline emissions), Appendix B (anticipated emissions), and Appendix C (HAP emissions).

X:\gandes\cascadetvrev
May 1, 2002

Melanie Taylor

From: ANDES Gary [ANDES.Gary@deq.state.or.us]
Sent: Tuesday, April 30, 2002 6:02 PM
To: Melanie Taylor
Subject: RE: Stack tests for electric arc furnaces


cascadetvrev.doc


CascadeEAFstresultsnoxco.doc


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Cascadebilletstresultspm.doc

It's your lucky day! I am just now working on the Cascade Steel Title V permit renewal and have all the source test data compiled into tables to accompany my Review Report. I am attaching the Review Report which describes the facility and the various tables with the source test data. If you have questions about this material, please do not hesitate to call me at 503/378-8240, ext. 234.

Good luck with your project. It's about time EPA updated AP-42 not only for PM but for the other pollutants as well.

-----Original Message-----
From: Melanie Taylor [mailto:mtaylor@alpha-gamma.com]
Sent: Monday, April 29, 2002 1:52 PM
To: 'Gary.Andes@state.or.us'
Subject: FW: Stack tests for electric arc furnaces

> My name is Melanie Taylor and I am a contractor with the US EPA.
> Currently I am assisting the EPA with a review of the AP-42 particulate
> matter (PM) emission factors for iron and steel production facilities.
> These emission factors were developed in 1986, so the EPA is trying to
> obtain newer emissions data for iron and steel production facilities that
> could be used to update the emission factors. I am working under the
> direction of Dallas Safriet of the EPA OAQPS EMAD Emission Factor and
> Inventories Group.
>
> I received a list of Electric Arc Furnaces from EPA Region 5 which
> contained a facility in Oregon: Cascade Steel Rolling Mills in
> McMinnville. You were listed as the contact for this facility. The
> information I received from EPA indicated that some stack testing was done
> in October 1998 at this facility. Would it be possible to obtain summary
> sheets for that stack testing, and also for any other stack testing
> conducted at this facility? I need the following information:
>
> Emissions data
> Source description (including control device description)
> Throughput during the testing timeframe
> Test methods
> Test dates
>
> Your assistance in this matter is most appreciated. If you have any
> questions, my phone number is (919) 954-0033 ext. 118. Thank you.
>
> Melanie Taylor
> Environmental Engineer
> Alpha-Gamma Technologies, Inc.
> 4700 Falls of Neuse Road
> Suite 350
> Raleigh, NC 27609

> Phone: (919) 954-0033 ext. 118
> Fax: (919) 954-0379
> Email: mtaylor@alpha-gamma.com
>