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PERMIT EXPIRATION DATE
DEC 1, 2018

Plant# 22605

Pacific Steel Casting Company LLC
1333 2nd Street
Berkeley, CA 94710

Location: 1328 2nd Street
Berkeley, CA 94710

S#	DESCRIPTION	[Schedule]	PAID
1001	MTGL/SEC-FURN> Electric arc furnace, Steel, 3.5 tons/hr max ARC FURNACE (Plant #1, 1328 2nd St.) Abated by: A1009 Baghouse, Pulse Jet Emissions at: P1009 Stack	[G3]	17623
1002	MTGL/SEC> Casting, miscellaneous, Steel, 3.5 tons/hr max POUR-OFF AREA (Plant #1, 1328 2nd St.) Abated by: A1008 Baghouse A1007 Adsorption, Activated Carbon/Charcoal Emissions at: P1007 Stack	[F]	475
1003	MTGL/SEC> Sand handling, Gravel/sand, 5 tons/hr max B SHAKE OUT (DUST COLLECTION) (Plant #1, 1328 2nd St.) Abated by: A1001 Baghouse, Shaking A1007 Adsorption, Activated Carbon/Charcoal Emissions at: P1001 Stack P1007 Stack	[F]	475
1004	MTGL/SEC> Sand handling, Gravel/sand, 5 tons/hr max A SHAKE OUT (DUST COLLECTION) (Plant #1, 1328 2nd St.) Abated by: A1001 Baghouse, Shaking A1007 Adsorption, Activated Carbon/Charcoal Emissions at: P1001 Stack P1007 Stack	[F]	432

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S#	DESCRIPTION	[Schedule]	PAID
1005	MTGL/SEC> Sand handling, Gravel/sand, Hydrocarbon SAND SYSTEM (DUST COLLECTION)w/Whirl Air Flow System (Plant #1, 1328 2nd St.) Abated by: A1001 Baghouse, Shaking A1007 Adsorption, Activated Carbon/Charcoal Emissions at: P1001 Stack P1007 Stack	[F]	432
1006	MTGL/SEC> Sand handling, Gravel/sand, Hydrocarbon SAND COOLER,6 SCREEN,w/Mold Release Coating Operation (Plant #1, 1328 2nd St.) Abated by: A1001 Baghouse, Shaking A1007 Adsorption, Activated Carbon/Charcoal Emissions at: P1001 Stack P1007 Stack	[F]	432
1007	MTGL/SEC> Sand handling, Gravel/sand, 5 tons/hr max SAND SCREEN (Plant #1, 1328 2nd St.) Abated by: A1001 Baghouse, Shaking A1007 Adsorption, Activated Carbon/Charcoal Emissions at: P1001 Stack P1007 Stack	[F]	432
1008	MTGL/SEC> Sand handling, Gravel/sand, 22 tons/hr max MULLER (Plant #1, 1328 2nd St.) Abated by: A1001 Baghouse, Shaking A1007 Adsorption, Activated Carbon/Charcoal Emissions at: P1001 Stack P1007 Stack	[F]	432
1010	MTGL/SEC> Sand handling, Gravel/sand, 2 tons/hr max MULLER, CORE SAND (Plant #1, 1328 2nd St.) Abated by: A1010 Baghouse, Pulse Jet Emissions at: P1010 Stack	[F]	432
1011	MTGL/SEC> Sand handling, Gravel/sand, 1 tons/hr max MULLER (Plant #1, 1328 2nd St.) Abated by: A1010 Baghouse, Pulse Jet Emissions at: P1010 Stack	[F]	432

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S#	DESCRIPTION	[Schedule]	PAID
1012	MTGL/SEC> Grinding, Steel, 2 tons/hr max CLEANING & GRINDING DEPT. (Plant #1, 1328 2nd St.) Abated by: A1004 Baghouse, Shaking Emissions at: P1004 Stack	[F]	475
1013	Misc MTGL/SEC, Steel, 1 tons/hr max ARC-AIR BOOTH (Plant #1, 1328 2nd St.) Abated by: A1004 Baghouse, Shaking Emissions at: P1004 Stack	[exempt]	0
1014	Misc MTGL/SEC, Steel, 1 tons/hr max ARC-AIR BOOTH (Plant #1, 1328 2nd St.) Abated by: A1006 Baghouse, Shaking Emissions at: P1006 Stack	[exempt]	0
1015	MTGL/SEC> Cleaning, chemical, Steel, 10 tons/hr max PANGBORN TABLE BLAST (Plant #1, 1328 2nd St.) Abated by: A1003 Baghouse, Shaking Emissions at: P1003 Stack	[F]	432
1016	MTGL/SEC> Cleaning, chemical, Steel, 4 tons/hr max ROTO-BLAST (Plant #1, 1328 2nd St.) Abated by: A1002 Baghouse, Shaking Emissions at: P1002 Stack	[F]	432
1017	MTGL/SEC> Cleaning, chemical, Steel, 5 tons/hr max ROTOBLAST (Plant #1, 1328 2nd St.) Abated by: A1002 Baghouse, Shaking Emissions at: P1002 Stack	[F]	432
1018	Inprocess Fuel Combustion, 6400K BTU/hr max, Natural gas HEAT TREATING FURNACES (Plant #1, 1328 2nd St.)	[exempt]	0
1019	MTGL/SEC> Sand handling, Gravel/sand, 15 tons/hr max RAW SAND RECEIVING (Plant #1, 1328 2nd St.) Abated by: A1001 Baghouse, Shaking A1007 Adsorption, Activated Carbon/Charcoal Emissions at: P1001 Stack P1007 Stack	[F]	432



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S#	DESCRIPTION	[Schedule]	PAID
1027	Binder for Sand Cores, 151.24 gal/yr solvent Core-Making Operation (Plant #1, 1328 2nd St.)	[E]	529
2001	MTGL/SEC> Sand handling, Gravel/sand, 30 tons/hr max SAND SILO LOADING ELEVATOR (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[F]	432
2002	MTGL/SEC> Storage, Gravel/sand SAND SILO #1 (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[F]	432
2003	MTGL/SEC> Storage, Gravel/sand SAND SILO #2 (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[F]	432
2004	MTGL/SEC> Sand handling, Gravel/sand, 5 tons/hr max BUCKET ELEVATOR (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[F]	432
2005	Fixed roof tank, 600 gal, Rust Brown, Resin, 4 ft diam RESIN TANK (LIQUI-BIN) (Plant #2, 1420 2nd St.)	[C]	147
2006	Misc MTGL/SEC-DRY, Burns Natural gas, 600K BTU/hr max SAND HEATER (Plant #2, 1420 2nd St.) Abated by: A2004 Baghouse, Shaking Emissions at: P2004 Stack	[F]	432
2007	MTGL/SEC> Mixing, Gravel/sand, 3.5 tons/hr max, 9 min/batch SAND COATING (Plant #2, 1420 2nd St.) Abated by: A2004 Baghouse, Shaking Emissions at: P2004 Stack	[F]	432

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S#	DESCRIPTION	[Schedule]	PAID
2008	MTGL/SEC> Milling/turning, Gravel/sand, 5 tons/hr max COATED SAND PUG MILL (Plant #2, 1420 2nd St.) Abated by: A2004 Baghouse, Shaking Emissions at: P2004 Stack	[F]	432
2009	MTGL/SEC> Sand handling, Gravel/sand, 5 tons/hr max COATED SAND VIBRATING SCREEN (Plant #2, 1420 2nd St.) Abated by: A2004 Baghouse, Shaking Emissions at: P2004 Stack	[F]	432
2010	MTGL/SEC> Sand handling, Gravel/sand, 5 tons/hr max BUCKET ELEVATOR (Plant #2, 1420 2nd St.) Abated by: A2004 Baghouse, Shaking Emissions at: P2004 Stack	[F]	432
2011	MTGL/SEC> Sand handling, Gravel/sand, 5 tons/hr max COOLING TOWER, COATED SAND (Plant #2, 1420 2nd St.) Abated by: A2004 Baghouse, Shaking Emissions at: P2004 Stack	[F]	432
2012	MTGL/SEC> Sand handling, Gravel/sand, 5 tons/hr max BUCKET ELEVATOR (Plant #2, 1420 2nd St.) Abated by: A2004 Baghouse, Shaking Emissions at: P2004 Stack	[F]	432
2013	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas CORE MOLDING MACHINE (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2014	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas CORE MOLDING MACHINE (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2015	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas CORE MOLDING MACHINE (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0

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S#	DESCRIPTION	[Schedule]	PAID
2016	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas CORE MOLDING MACHINE (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2017	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas CORE MOLDING MACHINE (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2018	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas CORE MOLDING MACHINE (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2019	MTGL/SEC> Storage, Gravel/sand COATED SAND BIN (Plant #2, 1420 2nd St.)	[F]	432
2020	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas SHELL MOLDING MACHINE,SINGLE,with mold adhesive operation (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2021	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas SHELL MOLDING MACHINE,TWIN,with mold adhesive operation (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2022	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas SHELL MOLDING MACHINE,TWIN,with mold adhesive operation (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2023	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas SHELL MOLDING MACHINE,TWIN,with mold adhesive operation (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2024	MTGL/SEC> Fabricating, miscellaneous, Burns Natural gas SHELL MOLDING MACHINE,SINGLE,with mold adhesive operation (Plant #2, 1420 2nd St.) Emissions at: P2006 Stack	[exempt]	0
2025	MTGL/SEC> Abrasives blasting, Walnut shell abrasive ABRASIVE BLASTER, CORE AREA (Plant #2, 1420 2nd St.) Abated by: A2006 Baghouse, Pulse Jet	[exempt]	0



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S#	DESCRIPTION	[Schedule]	PAID
2026	Inprocess Fuel Combustion, 1200K BTU/hr max, Natural gas LARGE LADLE HEATER (Plant #2, 1420 2nd St.)	[B]	239
2027	MTGL/SEC-FURN> Electric arc furnace, Steel, 3.8 tons/hr max ELECTRIC ARC FURNACE (Plant #2, 1420 2nd St.) Abated by: A2003 Baghouse, Shaking Emissions at: P2003 Stack	[G3]	17623
2028	MTGL/SEC> Casting, miscellaneous, Steel, 3.8 tons/hr max EAF LADLE STATION W/CANOPY HOOD (Plant #2, 1420 2nd St.) Abated by: A2001 Baghouse, Shaking A2007 Adsorption, Activated Carbon/Charcoal Emissions at: P2001 Stack	[F]	432
2029	MTGL/SEC> Casting, miscellaneous, Steel, 3.8 tons/hr max SHELL MOLD POURING STATION (Plant #2, 1420 2nd St.) Abated by: A2001 Baghouse, Shaking A2007 Adsorption, Activated Carbon/Charcoal Emissions at: P2001 Stack	[F]	475
2030	MTGL/SEC> Casting, miscellaneous, Steel, 3.8 tons/hr max CAST MOLD COOLING ROOM (Plant #2, 1420 2nd St.) Abated by: A2002 Baghouse, Shaking A2007 Adsorption, Activated Carbon/Charcoal Emissions at: P2001 Stack	[F]	475
2031	MTGL/SEC> Sand handling, Steel, 5 tons/hr max, 10 min/batch SHAKEOUT & TRAY SANDING (Plant #2, 1420 2nd St.) Abated by: A2001 Baghouse, Shaking A2007 Adsorption, Activated Carbon/Charcoal Emissions at: P2001 Stack	[F]	475
2032	MTGL/SEC> Abrasives blasting, Steel shot, 40 tons/hr max ROTOBLAST (Plant #2, 1420 2nd St.) Abated by: A2002 Baghouse, Shaking A2007 Adsorption, Activated Carbon/Charcoal Emissions at: P2001 Stack	[F]	432

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S#	DESCRIPTION	[Schedule]	PAID
2033	MTGL/SEC> Sawing, Steel, .4 tons/hr max ABRASIVE CUT-OFF SAW (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[exempt]	0
2034	MTGL/SEC> Sawing, Steel, .4 tons/hr max ABRASIVE CUT OFF SAW (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[exempt]	0
2035	MTGL/SEC> Sawing, Steel, .4 tons/hr max ABRASIVE CUT-OFF SAW (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[exempt]	0
2036	MTGL/SEC> Sawing, Steel, .4 tons/hr max ABRASIVE CUT-OFF SAW (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[exempt]	0
2037	MTGL/SEC> Grinding, Steel, .4 tons/hr max GRINDER (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[exempt]	0
2038	MTGL/SEC> Grinding, Steel, .4 tons/hr max GRINDER (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[exempt]	0
2039	MTGL/SEC> Grinding, Steel, .4 tons/hr max GRINDER (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[exempt]	0
2040	MTGL/SEC> Grinding, Steel, .4 tons/hr max GRINDER (Plant #2, 1420 2nd St.) Abated by: A2005 Baghouse, Shaking Emissions at: P2005 Stack	[exempt]	0



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S#	DESCRIPTION	[Schedule]	PAID
2044	MTGL/SEC> Sand handling, Gravel/sand, 2 tons/hr max Sand Storage Silo (Plant #2, 1420 2nd St.) Abated by: A2010 Baghouse, Pulse Jet	[F]	432
2045	MTGL/SEC> Sand handling, Gravel/sand, 6 tons/hr max Lump Breaker (Plant #2, 1420 2nd St.) Abated by: A2010 Baghouse, Pulse Jet	[F]	432
2046	MTGL/SEC> Sand handling, Gravel/sand, 6 tons/hr max Flow Bin (Rejected Material) (Plant #2, 1420 2nd St.) Abated by: A2010 Baghouse, Pulse Jet	[F]	432
2047	MTGL/SEC> Sand handling, Gravel/sand, 2 tons/hr max Sand Cooler/Air Bed #1 (C-1) (Plant #2, 1420 2nd St.) Abated by: A2010 Baghouse, Pulse Jet	[F]	432
2048	MTGL/SEC> Sand handling, Gravel/sand, 6 tons/hr max Material Handling Equipment(3 hoppers,3 bucket elevs,one truck load out nozzle) (Plant #2, 1420 2nd Abated by: A2010 Baghouse, Pulse Jet	[F]	432
2049	MISC-HDLG> Material handling, Burns Natural gas (R-1), Thermal Recycling Unit (Sand Reclamation) (Plant #2, 1420 2nd St.) Abated by: A2010 Baghouse, Pulse Jet	[F]	432
3001	MTGL/SEC-FURN> Electric arc furnace, Steel, 3 tons/hr max Electric Arc Furnace (Plant #3, 1421 2nd St.) Abated by: A3001 Baghouse, Pulse Jet Emissions at: P3001 Stack	[G3]	16021
3002	Inprocess Fuel Combustion, 1200K BTU/hr max, Natural gas Ladle Heater (Plant #3, 1421 2nd St.)	[exempt]	0
3004	MTGL/SEC> Sand handling, Steel, 15 tons/hr max Casting Mold Shake Out Station (Plant #3, 1421 2nd St.) Abated by: A3003 Baghouse, Pulse Jet A3007 Baghouse, Pulse Jet A3008 Adsorption, Activated Carbon/Charcoal Emissions at: P3003 Stack	[F]	432



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3005	MTGL/SEC> Abrasives blasting, Steel, 10 tons/hr max Blast Table (Plant #3, 1421 2nd St.) Abated by: A3002 Baghouse, Shaking A3006 Baghouse, Shaking Emissions at: P3002 Stack	[F]	432
3006	MTGL/SEC> Abrasives blasting, Steel, 2.5 tons/hr max Tumble Blast (Plant #3, 1421 2nd St.) Abated by: A3002 Baghouse, Shaking A3006 Baghouse, Shaking Emissions at: P3002 Stack	[F]	432
3007	MTGL/SEC> Sand handling, Gravel/sand, 3.25 tons/hr max New Sand Silo #1 (Plant #3, 1421 2nd St.) Abated by: A3004 Baghouse, Pulse Jet Emissions at: P3004 Stack	[F]	432
3009	MTGL/SEC> Sand handling, Gravel/sand, 15 tons/hr max Sand Cooler Classifier (Plant #3, 1421 2nd St.) Abated by: A3004 Baghouse, Pulse Jet Emissions at: P3004 Stack	[F]	432
3010	MTGL/SEC> Sand handling, Gravel/sand, 15 tons/hr max Sand Conditioning Unit #1 (Plant #3, 1421 2nd St.) Abated by: A3004 Baghouse, Pulse Jet Emissions at: P3004 Stack	[F]	432
3011	MTGL/SEC> Sand handling, Gravel/sand, 25 tons/hr max Sand Conditioning Unit #2 (Plant #3, 1421 2nd St.) Abated by: A3004 Baghouse, Pulse Jet Emissions at: P3004 Stack	[F]	432
3012	MTGL/SEC> Storage, Gravel/sand Return Sand Bin #1 (Plant #3, 1421 2nd St.) Abated by: A3004 Baghouse, Pulse Jet Emissions at: P3004 Stack	[F]	432

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3013	MTGL/SEC> Storage, Gravel/sand Reclaimed Sand Bin #2 (Plant #3, 1421 2nd St.) Abated by: A3004 Baghouse, Pulse Jet Emissions at: P3004 Stack	[F]	432
3014	MTGL/SEC> Storage, Gravel/sand Sand Mixer utilizing Techniset F6000/17712/17717 Binder (Plant #3, 1421 2nd St.) Abated by: A3005 Dry Filter A3003 Baghouse, Pulse Jet A3007 Baghouse, Pulse Jet A3008 Adsorption, Activated Carbon/Charcoal Emissions at: P3003 Stack	[F]	475
3015	MTGL/SEC> Sand handling, Gravel/sand, 25 tons/hr max New Sand Receiving Bucket Elevator #1 (Plant #3, 1421 2nd St.) Abated by: A3004 Baghouse, Pulse Jet Emissions at: P3004 Stack	[F]	432
3016	MTGL/SEC> Sand handling, Gravel/sand, 15 tons/hr max Bucket Elevator #2 Returned Sand (Plant #3, 1421 2nd St.) Abated by: A3004 Baghouse, Pulse Jet Emissions at: P3004 Stack	[F]	432
3017	MTGL/SEC> Sand handling, Gravel/sand, 15 tons/hr max Bucket Elevator #3 Reclaimed Sand (Plant #3, 1421 2nd St.) Abated by: A3004 Baghouse, Pulse Jet Emissions at: P3004 Stack	[F]	432
3018	Hand Brush, 320.19 gal/yr solvent, 0 gal/yr clean-up Mold Coating Operation (Plant #3, 1421 2nd St.) Abated by: A3003 Baghouse, Pulse Jet A3007 Baghouse, Pulse Jet A3008 Adsorption, Activated Carbon/Charcoal Emissions at: P3003 Stack	[E]	529

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3019	MTGL/SEC> Casting, miscellaneous, Steel, 3 tons/hr max Pouring.Cooling (Plant #3, 1421 2nd St.) Abated by: A3003 Baghouse, Pulse Jet A3007 Baghouse, Pulse Jet A3008 Adsorption, Activated Carbon/Charcoal Emissions at: P3003 Stack	[F]	432
3020	Spray booth, Air atomized, 10.56 gal/yr solvent Holcote 578 CCD (Plant #3, 1421 2nd St.)	[exempt]	0
32000	Combined Minor Combustion Sources, 600K BTU/hr max MISCELLANEOUS MINOR SOURCES (Plant #2, 1420 2nd St.)	[exempt]	0
32001	Combined Minor Combustion Sources, Natural gas, Front firing MINOR SOURCES (Plant #1, 1328 2nd St.)	[exempt]	0

58 Permitted Sources, 27 Exempt Sources

*** See attached Permit Conditions ***

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*** PERMIT CONDITIONS ***

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ALL SOURCES are subject to Condition ID# 20207

Source# Subject to Condition Numbers

1001	23694
1002	7134, 24156
1003	7134
1004	7134
1005	7134, 23271
1007	7134
1008	7134
1027	23991
2020	23272
2021	23272
2022	4292, 23272
2023	4292, 23272
2024	23272
2028	486
2029	486
2030	486
2031	486
2032	486
2044	14767
2045	14767
2046	14767
2047	14767
2048	14767
2049	14767
3004	22720
3018	3434
3019	23147

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COND# 486 *applies to S#'s 2028, 2029, 2030, 2031, 2032*

1. Operation

- a. The exhaust from Dust Collector A2002 (P2002 Exhaust) shall pass through a carbon adsorber at all times during pouring operations at Plant #2.
- b. At least half of the exhaust from Dust Collector A2001 (P2001 Exhaust) shall pass through a carbon adsorber at all times during pouring operations at Plant #2 and all of the exhaust from Dust Collector A2001 (P2001 Exhaust) shall pass through a carbon adsorber during periods of adverse meteorology, except when carbon adsorber CA1 is out of service for maintenance.
- c. The pressure drop across each of the carbon adsorbers shall be greater than one inch water gauge and less than nine inches water gauge.
- d. The temperature of the exhaust entering the carbon adsorbers shall not exceed 110 F.
- e. The "odor level" in the exhaust from each carbon adsorber shall not exceed 60 odor units.
- f. Pouring operations at Plant #2 shall not be initiated if carbon adsorbers CA1 and CA2 have both ceased functioning or have both been removed from service.
- g. Pouring operations at Plant #2 shall not be initiated if odor test results show that the exhaust from both carbon adsorbers CA1 and CA2 have measured odor levels which exceed 60 odor units.
- h. The exhaust from Dust Collector A2002 (P2002 Exhaust) shall not be bypassed to carbon adsorber CA3.

2. Maintenance

- a. Whenever the exhaust from a carbon adsorber exceeds

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60 odor units, at least one section of the carbon in that adsorber shall be replaced.

- b. Whenever the pressure drop across a carbon adsorber is less than one inch water gauge or greater than nine inches water gauge, that carbon adsorber shall be removed from service for maintenance.
- c. Sufficient carbon inventory must be kept on site to completely replace the carbon in at least two carbon adsorber sections. Whenever the carbon in an adsorber is replaced, the replenishment of the standby supply of carbon shall be completed within seven calendar days.

3. Testing And Monitoring

- a. At least 1 odor control test shall be performed on each carbon adsorber within the first week of operation.
- b. For one year after the start-up of the carbon adsorption system, each carbon unit must be tested for odor removal at least once every two weeks.
- c. When a carbon bed shows deterioration of odor removal such that the odor level at the outlet of the bed is greater than 25 odor units, then that carbon bed shall be tested for odor control every day of pouring operations at Plant #2 until a carbon section in that adsorber is replaced
- d. For each required odor control test under 3a, 3b and 3c, test samples shall be taken during the time of expected peak odor generation.
- e. For each carbon adsorber, the inlet temperature and the pressure drop shall be monitored continuously during all periods of operation.
- f. Odor evaluation shall be counted in accordance with the Odor Evaluation Technique set forth in Attachment #1.



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4. Reporting

- a. Upon start-up of the Carbon Adsorption system, reports of all odor test results shall be summarized and sent to the District on a monthly basis for the first three months, on a quarterly basis for the next nine months, and annually thereafter unless the provisions of 4n are triggered.
- b. Upon issuance of a Violation Notice for public nuisance, the APCO may, at his discretion, re-trigger the monthly and quarterly reporting requirements of 4a.
- c. Any breakdown of the carbon adsorber system which results in any exhaust from Dust Collector A2002 (P2002 exhaust) or all of the exhaust from dust collector A2001 (P2002 exhaust) bypassing the carbon adsorbers, shall be reported to the District within 24 hours of the breakdown.
- d. All data which is required to be collected under these conditions shall be maintained for a period of two years and shall be available for inspection upon reasonable notice by the APCO or his designated representative.

ODOR EVALUATION TECHNIQUE

Two grab samples shall be taken from each of the upstream and downstream carbon adsorber plenums by 100 ml preconditioned glass syringes through the sampling ports provided.

Each pair of samples shall be taken in quick succession to approach simultaneous sampling of the inlet and outlet conditions.

Odor concentration shall be determined by dilution to the detection threshold with odor-free air as follows. A small measured quantity of the odor sample shall be transferred by using a reconditioned small (1 ml) syringe into a clean 100 ml syringe that contains about 10 ml of odor-free air. This syringe shall then be filled rapidly to the 100 ml mark with



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1. The odorous emissions from S2022 and S2023 shall be collected, to the maximum extent possible using a District approved system, and vented under negative pressure to carbon adsorber CA-3 module in Carbon Adsorption Unit A2007 at all times when they are operational.
 2. The pressure drop across carbon adsorber CA-3 shall be greater than one inch water gauge and less than nine inches water gauge.
 3. The temperature of the exhaust entering the carbon adsorber CA-3 shall not exceed 110oF.
 4. The "odor level" in the exhaust from carbon adsorber CA-3 shall not exceed 60 odor units.
 5. Whenever the exhaust from carbon adsorber CA-3 reaches 60 odor units, the carbon in that adsorber shall be replaced.
 6. For carbon adsorber CA-3, the inlet temperature and the pressure drop shall be monitored continuously during all periods of operation.
 7. These conditions apply only to the operation of S2022 and S2023. Permit Conditions which apply to the operation of Carbon Adsorption Unit A2007 due to S2028 through S2032 are still fully in effect and enforceable.
 8. Pacific Steel Casting shall maintain daily records, in a District approved log, to confirm compliance with conditions number 2, 3 and 4. These records shall be retained for a period of two years from date of first entry. The logs shall be kept on site and made available to the District Staff upon request.

COND# 7134 *applies to S#'s 1002, 1003, 1004, 1005, 1007, 1008*

1. The S1002 odorous emission stream which contains particulate matter shall be routed through the A1008 baghouse (prefilter) followed by the A1007 Carbon Adsorption system before it is exhausted through the



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P1007 stack.

2. The owner/operator shall not discharge an air contaminant into the atmosphere for a period or periods aggregating more than 3 minutes in any hour, which is as dark or darker than a Ringelmann 1.0.

3. The A1008 baghouse shall be equipped with a District approved manometer for measuring the pressure drop across the baghouse.

4. OPERATION

a. The owner/operator shall operate the A1007 carbon adsorption system at all times during the pouring and cooling operations. The owner/operator shall not cease operation of the A1007 carbon adsorption system until all poured molds have completed the cooling period or until all poured molds produce no visible emissions at source S1002, as demonstrated using EPA Method 22.

b. Sources S1003 and S1004 shall be abated by the A1007 carbon adsorption unit at all times of operations.

c. The fugitive emissions from source S1002 shall be collected, using a District approved system, and routed to the Carbon Adsorption Unit A1007 during all periods of pouring and cooling.

d. The pressure drop across each of the carbon beds CA1, CA2 and CA3 shall be greater than one inch water gauge and less than nine inches water gauge.

e. The temperature of the exhaust entering the A1007 carbon adsorber shall not exceed 110 F.

f. The "odor level" in the exhaust from A1007 carbon adsorber shall not exceed 60 odor units.

g. Pouring at S1002 shall not be initiated if carbon bed CA1 has ceased functioning or has been removed from service. Line-A and Line-B shakeout operations (S1003 and S1004) at Plant 1 shall not be initiated if carbon beds CA2 and CA3 have ceased functioning or have been removed from service.

h. Pouring operations at S1002 shall not be initiated if odor test results show that the exhaust from carbon bed CA1 has measured odor levels which exceed 60 odor units. Line-A and Line-B shakeout operations



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(S1003 and S1004) at Plant 1 shall not be initiated if odor test results show that the exhaust from carbon beds CA2 and CA3 has odor levels which exceed 60 odor units.

5. MAINTENANCE

- a. The owner/operator shall replace the carbon in a carbon bed no later than 7 calendar days after the exhaust from that carbon bed, exceeds 60 odor units.
- b. The owner/operator shall replace the carbon in a carbon bed no later than 7 calendar days after the pressure drop across that carbon bed is less than one inch water gauge or greater than nine inches water gauge.
- c. Sufficient carbon inventory must be kept on site to completely replace the carbon in at least two carbon bed sections (there are four sections in each carbon bed). Whenever the carbon in an adsorber is replaced, the replenishment of the standby supply of carbon shall be completed within seven calendar days.

6. TESTING AND MONITORING

- a. When a carbon bed shows deterioration of odor removal such that the odor level at the outlet of the bed is greater than 25 odor units, then that carbon bed shall be tested for odor control every day of pouring operations at S1002 until the carbon in that bed is replaced.
- b. For each required odor control test under 6a, test samples shall be taken during the time of expected peak odor generation.
- c. For each carbon bed (CA1, CA2, CA3), the pressure drop shall be monitored continuously during all periods of operation.
- d. For the Carbon Adsorption Unit (A1007), a temperature indicator shall be installed to measure the inlet temperature.
- e. Odor evaluation shall be conducted in accordance with the Odor Evaluation Technique established for the Plant 2 Carbon Adsorption Unit.



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7. REPORTING

- a. Reports of all odor test results shall be summarized and sent to the District on an annual basis unless the provisions of 6a are triggered, in which case odor test results shall be sent to the District on a weekly basis.
- b. Upon issuance of a Violation Notice for public nuisance, the APCO may, at his discretion, require monthly and quarterly reporting requirements.
- c. All data which is required to be collected under these conditions shall be maintained for at least five years from date of recordation and shall be available for inspection upon reasonable notice by the APCO or his designated representative.

8. RECORDKEEPING: The owner/operator shall maintain in a District-approved daily log that includes the following information:

- a. all pressure drop data across each carbon bed of A1007;
- b. the inlet temperature to A1007;
- c. the date of each carbon change-out and specify which carbon bed was changed for all carbon change-outs;
- d. A1007 Carbon Adsorber non-operation times.

These logs shall be retained on site for at least five years from the date of entry and shall be made available to District staff upon request.

COND# 14767 applies to S#'s 2044, 2045, 2046, 2047, 2048, 2049

Pacific Steel Casting Plant #2
Application 16879

- 1. Operation of Sources 2044-2049 shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued. In no event shall the minimum operating temperature of Source 2049's thermal recycling fluidized bed be less than 1400 degrees F. (cumulative increase)



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- 8. To determine compliance with condition #1, Source 2049 shall be equipped with continuous temperature measuring and recording instrumentation consisting of at least one temperature probe in the thermal incinerator and at least one recording device, which will continuously record temperature. The temperature data collected from the temperature recorder shall be maintained in a file which shall be available for District inspection for a period of at least 2 years following the date of last entry. (cumulative increase)

- 9. Should the operation of Source 2049 and any or all associated equipment (Sources 2044-2048) be determined by the District to cause nuisance odors, the permit holder shall immediately cease operation of the entire sand recycling system (Sources 2044-2049). In the event that this occurs, the operation of the sources shall be prohibited until all odor problems are resolved by the permit holder. Resolution of any odor problems may require the permanent shut down of sources 2044-2048 or the permanent venting of all emissions to existing carbon adsorption units located at Pacific Steel Casting. (Regulation 7)

Addendum to Permit Condition # 14767
 Plant #2
 Source # 2049
 Application # 16879
 04-04-97

Source 2049 - Thermal Recycling Unit

"Allowable Temperature Excursions"

The minimum temperature requirement of Condition 14767 shall not apply during an "Allowable Temperature Excursion" below the minimum temperature, provided that the controller set temperature is at or above the minimum temperature requirement. An Allowable Temperature Excursion is one of the following:

- a. A temperature excursion not exceeding 20 oF; or
- b. A temperature excursion for a period or periods aggregating less than or equal to 15 minutes in any hour; or



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- c. A temperature excursion for a period or periods aggregating more than 15 minutes in any hour, provided that both of the following criteria are met. Only twelve such excursions are allowed per calendar year.
- d. the excursion does not exceed 50 degrees F; and the duration of the excursion does not exceed 24 hours. Two or more excursions greater than 15 minutes in duration occurring during the same 24-hour period shall be counted as one excursion toward the 12 excursion limit.

For each Allowable Temperature Excursion that exceeds 20 oF and 15 minutes in duration, the Permit Holder shall keep sufficient records to demonstrate that they meet the qualifying criteria described above. Records shall be retained for a minimum of two years from the date of entry, and shall be made available to the District upon request. Records shall include at least the following information:

- a. Thermal oxidizer controller set temperature;
- b. Starting date and time, and duration of each Allowable Temperature Excursion;
- c. Minimum temperature during each Allowable Temperature Excursion;
- d. Number of Allowable Temperature Excursions per month, and total number for the current calendar year; and
- e. All strip charts or other temperature records.
(recordkeeping)

COND# 20207 applies to ALL SOURCES at this plant.

Pacific Steel Casing Company LLC has a synthetic minor operating permit. This operating permit covers all sources at the facility.

Conditions #1-5 establish the permit terms that ensure this plant is classified as a Synthetic Minor Facility under District Regulation 2, Rule 6 - Major Facility Review and ensure it is not subject to the permitting requirements of Title V of the Federal Clean Air Act as amended in 1990 and 40 CFR Part 70. All applications submitted by the applicant and all modifications to the plant's equipment after issuance of the synthetic minor permit must be evaluated to



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ensure that the facility cannot exceed the synthetic minor general limits below, and that sufficient monitoring, recordkeeping, and reporting requirements are imposed to ensure enforceability of the limits.

Any revision to a condition establishing this plant's status as a Synthetic Minor Facility or any new permit term that would limit emissions of a new or modified source for the purpose of maintaining the facility as a Synthetic Minor must undergo the procedures specified by Rule 2-6, Section 423. The basis for the synthetic minor conditions is an emission limit for regulated air pollutants of less than 95 tons per year, an emission limit for a single hazardous air pollutant of less than 9 tons per year, and an emission limit for a combination of hazardous air pollutants of less than 23 tons per year.

The permitted sources at PSC plant #2 on the date of issuance of the synthetic minor permit are:

- 2001 SAND SILO LOADING ELEVATOR
- 2002 SAND SILO #1
- 2003 SAND SILO #2
- 2004 BUCKET ELEVATOR
- 2005 RESIN TANK (LIQUI-BIN)

- 2006 SAND HEATER
- 2007 SAND COATING
- 2008 COATED SAND PUG MILL
- 2009 COATED SAND VIBRATING SCREEN
- 2010 BUCKET ELEVATOR
- 2011 COOLING TOWER, COATED SAND
- 2012 BUCKET ELEVATOR
- 2013 CORE MOLDING MACHINE [exempt]
- 2014 CORE MOLDING MACHINE [exempt]
- 2015 CORE MOLDING MACHINE [exempt]
- 2016 CORE MOLDING MACHINE [exempt]
- 2017 CORE MOLDING MACHINE [exempt]
- 2018 CORE MOLDING MACHINE [exempt]

- 2019 COATED SAND BIN
- 2020 SHELL MOLDING MACHINE, SINGLE [exempt]
- 2021 SHELL MOLDING MACHINE, TWIN [exempt]
- 2022 SHELL MOLDING MACHINE, TWIN [exempt]



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- 2023 SHELL MOLDING MACHINE, TWIN [exempt]
- 2024 SHELL MOLDING MACHINE, SINGLE [exempt]
- 2025 ABRASIVE BLASTER, CORE AREA [exempt]
- 2026 LARGE LADLE HEATER
- 2027 ELECTRIC ARC FURNACE
- 2028 EAF LADLE STATION W/CANOPY HOOD
- 2029 SHELL MOLD POURING STATION
- 2030 CAST MOLD COOLING ROOM
- 2031 SHAKEOUT & TRAY SANDING
- 2032 ROTOBLAST
- 2033 ABRASIVE CUT-OFF SAW [exempt]
- 2034 ABRASIVE CUT OFF SAW [exempt]
- 2035 ABRASIVE CUT-OFF SAW [exempt]
- 2036 ABRASIVE CUT-OFF SAW [exempt]
- 2037 GRINDER [exempt]
- 2038 GRINDER [exempt]
- 2039 GRINDER [exempt]
- 2040 GRINDER [exempt]
- 2044 Sand Storage Silo
- 2045 Lump Breaker
- 2046 Flow Bin (Rejected Material)
- 2047 Sand Cooler/Air Bed #1 (C-1)
- 2048 Material Handling Equipment
(3 hoppers, 3 bucket elevs, one truck load out nozzle)
- 2049 Recycling Unit (Sand Reclamation)
- 32000 MISCELLANEOUS MINOR SOURCES [exempt]

The permitted sources at PSC plant #3 on the date of issuance of the synthetic minor permit are:

- 3001 Electric Arc Furnace
- 3002 Ladle Heater [exempt]
- 3004 Casting Mold Shake Out Station
- 3005 Blast Table
- 3006 Tumble Blast
- 3007 New Sand Silo #1
- 3009 Sand Cooler Classifier
- 3010 Sand Conditioning Unit #1
- 3011 Sand Conditioning Unit #2
- 3012 Return Sand Bin #1
- 3013 Reclaimed Sand Bin #2
- 3014 Mixer Sand Bin
- 3015 New Sand Receiving Bucket Elevator #1
- 3016 Bucket Elevator #2 Returned Sand



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3017 Bucket Elevator #3 Reclaimed Sand
3018 Mold Coating Operation

The following permit conditions are District conditions that do not establish this facility as a Synthetic Minor: 486 and 4292. Condition 14767 limits the throughput at Plant #2, Source 2049, the Thermal Recycling Unit, which limits the POC emissions from this source.

Synthetic Minor Conditions:
Condition # 20207

1. The owner/operator shall comply with the following POC emissions limits, throughput limits and emissions factors:

Individual	
PSC Plant #2	
Source 2007, Sand Coating	
Material	POC limit
phenolic foundry binder	85 tpy

PSC Plant #3	
Source 3014, Mixer Sand Bin	
Material	POC limit
binder	2.5 tpy

PSC Plant #3	
Source 3018, Mold Coating	
Material	POC limit
mold coating	2.5 tpy

2. The owner/operator shall maintain a District approved monthly log of the throughputs and mold coating usage in the sources specified in part #1. Mass emissions of Precursor Organic Compounds (POC) from these sources shall be calculated using these throughputs and District approved emission factors.
 - a. The year to date totals shall be derived each month by summing the totals for the previous twelve month period. The summaries shall be completed within thirty days after the end of each month. Logs of the information required to generate the necessary reports shall be retained for at least five years



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and be available for review by the District staff.

- 3. The Owner/Operator shall prepare an annual emissions report. The report shall contain the following items for the year ending June 30:
 - a. Total POC emissions.

This report shall be submitted to the Director of Compliance and Enforcement by July 31 of each year.

- 4. The owner/operator shall report non-compliance with any of the above conditions in writing to the Director of Compliance and Enforcement within 10 calendar days of discovery of non-compliance.

COND# 22720 *applies to S# 3004*

Application 13794
Pacific Steel Casting Co. Plant #3

- 1. The owner/operator of A3003 and A3004 shall disconnect the pouring and cooling area from A3003 and A3004 if the APCO determines that it is causing odor complaints. (1-301)
- 2. The owner/operator of A3003 and A3007 shall properly maintain and properly operate A3003 and A3007 at all times of operation of S3004 and/or pouring and cooling operations. (cumulative increase)
- 3. The owner/operator of A3003 and A3007 shall properly maintain and operate a manometer or other district approved device that measures pressure drop across each of the A3003 and A3007 baghouses. The pressure drop across each A3003 and A3007 shall be no less than 4.5 inches of water and no greater than 7 inches of water. The owner/operator shall monitor and record the pressure drop across each A3003 and A3007 at least once per day. (cumulative increase, 1-523)
- 4. The owner/operator of A3003 and A3007 shall maintain in a district approved daily log the pressure drop across each A3003 and A3007. This log shall be retained on site



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for at least two years from the date of entry and be made available to district staff upon request. (recordkeeping)

COND# 23147 applies to S# 3019

PLANT 3 - CARBON ADSORPTION SYSTEM
Application 14030

1. The owner/operator shall properly maintain and properly operate an organic vapor-analyzer-flame ionization detector (FID) that continuously monitors and records the inlet and outlet Total Hydrocarbons (THC) concentrations of A3008 during all periods that A3008 is operating. This parametric monitoring system shall calculate and record daily Total Hydrocarbons (THC) mass emissions from both the inlet and outlet of A3008, the outlet concentration in ppmv Total Hydrocarbons (THC) as C1. For the purposes of this Permit Condition #23147, Total Hydrocarbons (THC) shall be defined as the FID reading less the FID system bias determined by Condition #1g. The parametric monitoring system shall be subject to both regulation 1-523 and the specific requirements listed below.
(cumulative increase, Regs 7, 1-301, and 1-523)

The owner/operator of the FID shall:

- a. maintain records that demonstrate proof of expeditious repair for monitors that are down;
- b. maintain weekly records to demonstrate that the FID has a minimum of daily calibration during operation days;
- c. assure that monitoring data shall generate at least one valid data point every 15 minutes or use best engineering practice to substitute for missing data in a manner acceptable to the APCO;
- d. assure that monitoring data shall be made available to District inspectors 30 days following the replacement of carbon at A3008.
(cumulative increase, Regs 7, 1-301, and 1-523)
- e. maintain monitors to be accurate within 20% when compared with a reference test method or 10% of the applicable standard including the limits contained



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within these conditions;

- f. reduce or minimize FID system bias due to hydrocarbon buildup in the sampling tubing by replacement or cleaning of tubing at each carbon changeout of A3008; and
 - g. establish FID system bias weekly using hydrocarbon-free air or zero gas introduced to the probe tip. The system bias shall be used until the next system bias is determined. The owner/operator shall reduce the system bias to less than 30 ppmv THC as C1.
2. The owner/operator shall properly maintain and properly operate A3008 at all times of operation of S3019 Pouring and Cooling Area and S3004 Shakeout Station. The owner/operator shall cease all pouring and shakeout operations abated by A3008 if A3008 is not operating. (cumulative increase, Regs 7, and 1-301)
 3. The owner/operator shall conduct odor testing at the outlet of A3008 pursuant to all the applicable requirements of these permit conditions. The owner/operator shall conduct odor testing at the outlet of A3008 at least once every ninety days during the first two years following the initial operation of the carbon system. (The owner/operator may conduct the test within 85-95 days from the date of the previous test and be in compliance with this requirement). The Air Pollution Control Officer (APCO) may modify the odor testing schedule pursuant to a written request by the owner/operator as set forth in part 8, below. (Regs 1-301, 1-523, 7, cumulative increase)
 4. When the outlet of A3008 measures or exceeds a FID level of 50 ppmv THC as C1, (averaged over any consecutive ninety minute period) and the cumulative THC mass emissions at the inlet of A3008 is 8,500 pounds or more, the owner/operator shall submit evidence, within three business days after the event, that a full load (@ 52,000 lbs) of fresh carbon for change out is either on site, or has been ordered. (cumulative increase, Regs 7, and 1-301)
 5. The owner/operator shall replace all carbon in A3008 with fresh carbon no later than 7 calendar days after

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the outlet concentration at A3008 measures or exceeds 65 ppmv THC as C1 measured at the FID (averaged over any consecutive 90 minute period) and the cumulative THC mass emissions at the inlet of A3008 is 10,000 pounds or more. The owner/operator may submit a request in writing to the District Engineering Division to modify the carbon replacement time requirement and/or the outlet concentration requirement at A3008. The application shall include actual data to support modifications to the conditions above. Whether the data supports the application is a determination made by the APCO. (cumulative increase, Regs 7, and 1-301)

6. The owner/operator shall cease shakeout operations at S3004 Shakeout Station immediately and pouring operations at S3019 Pouring and Cooling Area within 2 hours of the outlet concentration at A3008 reaching or exceeding 85 ppm THC as C1 measured at the FID (averaged over any consecutive 90 minute period). The owner/operator shall not recommence these operations until it has replaced all carbon in A3008 carbon beds with fresh carbon. (cumulative increase, Regs 7, and 1-301)

7. The owner/operator shall conduct all odor level testing required pursuant to these permit conditions in accordance with the District-approved protocol. At a minimum, the owner/operator shall provide details on the number of odor panelists used, the method used to quantify the dilution to threshold (DTT), and the manner in which the DTT is normalized to more accurately quantify the odor unit concentration of a given sample. (cumulative increase, Regs 7, and Reg 1-301)

8. The owner/operator may submit a request in writing to the District Engineering Division to modify or replace the odor testing requirements and/or action levels specified in the permit conditions with THC mass emissions data from the FID monitoring and recording system. The application shall include actual data that verifies what the owner/operator requests as a more effective indicator of carbon saturation. The APCO shall determine whether the data supports the application and may administratively add a THC mass emissions limit



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based on this parametric monitoring system.
(Regs 1-301, 1-523, 7, cumulative increase)

- 9. The owner/operator shall properly maintain and properly operate a continuous pressure monitor and record the pressure drop across each carbon bed in A3008. The owner/operator shall cease all pouring and shakeout operations whenever the pressure drop across a carbon bed in A3008 greater than fifteen inches water gauge. (cumulative increase, Regs 7, and 1-301)
- 10. The owner/operator shall properly maintain and operate a continuous temperature monitor and recorder at the inlet of A3008. The owner/operator shall cease all pouring and shakeout operations when the inlet to the carbon beds exceed 110 F. (cumulative increase, Regs 7, and 1-301)
- 11. The owner/operator shall maintain the inlet face velocity at the openings of the enclosure to S3019 Pouring and Cooling Area at an minimum of 200 feet per minute (fpm), except while S3004 Shakeout Station is operating, or during material transfer in and out of the enclosure (when the door between the electric arc furnace and S3019 Pouring and Cooling Area is opened) not to exceed 2 minutes per transfer and 8 transfers per hour, or unless all castings within the S3019 Pouring and Cooling Area enclosure have cooled for a minimum of 24 hours. The owner/operator shall maintain a minimum of 100 fpm inlet face velocity at all openings of S3019 Pouring and Cooling Area while S3004 Shakeout Station is operating. The owner/operator of A3008 shall use a District-approved instrument to measure face velocity monthly. The District reserves the right to administratively change this condition if it is determined by the APCO that other parameters or measurement method(s) are required to ensure adequate capture efficiency. If the owner/operator cannot maintain the inlet face velocities set forth above, then the owner/operator shall operate S3019 and S3004 as follows:
 - a. The owner/operator shall not commence shakeout operations at S3004 until there is no casting that produces visible emissions as demonstrated using EPA Method 22 at the S3019 Pouring and Cooling Area.

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If the APCO determines that significant odorous fugitive emissions are emitted from S3004 and S3019, the APCO may require the owner/operator to conduct tracer gas testing to demonstrate 95% capture efficiency of the collection system at S3019 Pouring and Cooling Area and/or S3004 Shakeout Station.

(cumulative increase, Regs 7, and 1-301)

12. The owner/operator of A3008 may submit a request in writing to the District Engineering Division to modify the restrictions given in part 11a above, to be based on alternative measures to establish that castings in the S3019 Pouring and Cooling Area have cooled sufficiently such that odorous emissions are insignificant. This request shall be based on a District approved alternative testing protocol, as submitted by the owner/operator, approved in advance by the District.
(cumulative increase, Regs 7, and 1-301)

13. The owner/operator shall not conduct any shakeout activities at S3004 Shakeout Station concurrently while conducting a pouring operation at S3019 Pouring and Cooling Area. (cumulative increase, Regs 7, and 1-301)

14. The owner/operator shall maintain the inlet face velocity at the openings of the enclosure to S3004 Shakeout Station during shakeout at a minimum of 200 fpm. The owner/operator of A3008 shall use a District-approved instrument to measure face velocity.
(cumulative increase, Regs 7, and 1-301)

15. The owner/operator of A3008 shall receive makeup air from the ground level (or within 3 feet of floor level) and not from roof fans at both S3004 Shakeout Station and S3019 Pouring and Cooling. The owner/operator shall lock the motor starters in the off position for the roof fans for fresh air within the enclosures and keep these roof fans closed with back draft dampers that are maintained in good operating condition. The owner/operator may use the roof fans for fresh air within the enclosure during maintenance shutdowns when the FID THC readings at the inlet of A3008 are equal to or less than 20 ppmv as C1 without correction for system bias. (cumulative increase, Regs 7, and 1-301)



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- 16. The owner/operator shall not change materials that may increase VOC emissions, or result in the emissions of a toxic air contaminant not previously emitted, without obtaining prior approval from the District Engineering Division. Any change in materials shall be submitted on a Data Form X with an attached MSDS. The owner/operator of this facility (including plants 187, 703, and 1603) shall not use any materials containing chlorinated compounds without obtaining prior approval from the District Engineering Division.
(cumulative increase, Regs 2-1-301, 7, 1-301, and 2-5)
- 17. The owner/operator shall not place any molds outside of the S3019 Pouring and Cooling Area enclosure prior to shakeout. (cumulative increase, Regs 7, and 1-301)
- 18. The owner/operator of A3008 shall keep the outside door by the electric arc furnace closed at all times when the door between the electric arc furnace and S3019 Pouring and Cooling Area is opened. The door between the electric arc furnace and the S3019 Pouring and Cooling Area shall remain closed during all S3004 Shakeout Operations. (cumulative increase, Regs 7, and 1-301)
- 19. The owner/operator shall maintain in a District-approved daily log:
 - a. the most recent odor panel results in units of DTT,
 - b. time of first casting poured and last casting poured,
 - c. start and end times of shakeout,
 - d. FID system bias determination of the sampling/analysis system and the time & date it was established.

These logs shall be retained on site for at least five years from the date of entry and be made available to District staff upon request.

- 20. The owner/operator shall maintain in a District-approved daily log that includes the following information:
 - a. all pressure drop data across each carbon bed of A3008;
 - b. the inlet temperature to A3008;
 - c. results of all source testing and inlet velocity



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- testing;
- d. FID 90 minute and 1 minute average THC concentrations from both the inlet and outlet of A3008 as ppm C1;
 - e. FID daily and cumulative hydrocarbon mass emissions at both the inlet and outlet of A3008;
 - f. The total amount of steel throughput in tons;
 - g. the total amount of binder and catalyst usage in tons;
 - h. the total amount of sand usage in tons;
 - i. the date that carbon change-outs occur and the steel throughput in tons between carbon change-outs; and
 - j. A3008 non-operation times lasting more than one hour.

These logs shall be retained on site for at least five years from the date of entry and shall be made available to District staff upon request.

COND# 23271 *applies to S# 1005*

Permit Conditions for the Whirl Air System at S1005
Application #14784

1. The owner/operator of S1005 shall not exceed 2640 gallons of Whirl Air Flow Release Agent during any consecutive twelve-month period. (Basis: Cumulative Increase)
2. The owner/operator may use an alternate coating other than the materials specified in Part 1, provided that the owner/operator can demonstrate that all of the following are satisfied:
 - a. Total POC emissions from S1005 do not exceed 810 pounds in any consecutive twelve-month period;
 - b. The use of these materials does not increase toxic emissions above any chronic risk screening trigger level of Table 2-5-1 in Regulation 2-5.
(Basis: Cumulative Increase; Toxics)
3. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above parts, including the following



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information:

- a. Quantities of each type of coating used at this source on a monthly basis.
- b. If a material other than those specified in Part 1 is used, POC and toxic component contents of each material used; and mass emission calculations to demonstrate compliance with Part 2, on a monthly basis;
- c. Monthly usage and/or emission calculations shall be totaled for each consecutive twelve-month period.

All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase; Toxics)

COND# 23272 *applies to S#'s 2020, 2021, 2022, 2023, 2024*

Permit Conditions for Mold Adhesive Operations at S-20, S-21, S-22, S-23, and S-24 Shell Mold Machines.

Application #14783

1. The owner/operator of S-20, S-21, S-22, S-23 and S-24 shall not exceed 8500 gallons of mold adhesive during any consecutive twelve-month period. The adhesive shall consist of equal parts of Georgia Pacific 5520 powdered resins and soy oil.
(Basis: Cumulative Increase)
2. The owner/operator may use an alternate coating other than the materials specified in Part 1, provided that the owner/operator can demonstrate to the satisfaction of the APCO that all of the following are satisfied:
 - a. Total POC emissions from the alternate adhesive at S-20, S-21, S-22, S-23 and S-24 do not exceed 1,130 pounds in any consecutive twelve-month period;



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- b. The use of these materials does not increase toxic emissions above any chronic risk screening trigger level of Table 2-5-1 in Regulation 2-5.

(Basis: Cumulative Increase; Toxics)

3. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above parts, including the following information:
- Quantities of each type of coating used at this source on a monthly basis.
 - If a material other than those specified in Part 1 is used, POC and toxic component contents of each material used; and mass emission calculations to demonstrate compliance with Part 2, on a monthly basis;
 - Monthly usage and/or emission calculations shall be totaled for each consecutive twelve-month period.

All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase; Toxics)

COND# 23694 *applies to S# 1001*

- The owner/operator shall route all particulate matter emissions from Source S1001 Electric Arc Furnace, including particulate emissions from the pouring operations at the Electric Arc Furnace ladle and the A-line ladle, to A1009 Baghouse. (basis: Regulation 6-301, 6-310, 6-311)
- The owner/operator shall operate such that the outlet PM₁₀, as defined in Regulation 2, Rule 2, grain loading for A1009 Baghouse not exceed 0.0017 grains per dry standard cubic foot. (basis: Regulation 6-310, Regulation 2-5, BACT, Cumulative Increase)



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- 3. No later than 60 days from the startup of A1009 Baghouse, the owner/operator shall conduct District approved source tests to determine initial compliance with the grain loading limit in Part 2. The owner/operator shall repeat the source testing on an annual basis thereafter. The source test results shall be submitted to the District staff no later than 60 days after the source test. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests and shall comply with all applicable testing requirements as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section, in writing, of the source test protocols and projected test dates at least 7 days prior to testing.
(basis: BACT, Cumulative Increase)

- 4. The owner/operator shall equip A1009 Baghouse with a device for measuring the pressure drop across the baghouse. Each device shall be checked for plugging at least every three months.
(basis: Regulation 6-301, 6-310, 6-311, 2-1-403)

- 5. The owner/operator shall inspect A1009 Baghouse daily to ensure proper operation. The following items shall be checked:
 - a. The pressure drop across the baghouse shall be checked daily. The pressure drop shall be no greater than 12 inches of water at startup of A1009. After the startup period, not to exceed one week, the pressure drop shall be no less than 2 inches of water and no greater than 12 inches of water.
 - b. The baghouse exhaust shall be checked daily for evidence of particulate breakthrough. If breakthrough is evident from plume observations, dust buildup near the stack outlet, or abnormal pressure drops, the filter bags shall be checked for any tears, holes, abrasions, and scuffs, and replaced as needed.
 - c. The pulsejet cleaning system shall be maintained and operated at sufficient intervals to maintain compliance with Part 2 above.
(basis: Regulation 2-1-403)



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6. No later than 90 days from the startup of A1009 Baghouse, the owner/operator shall install a District-approved broken bag detection device, which shall trigger an alarm when a preset particulate emissions level is exceeded.
(basis: Regulation 6-301, 6-310, 6-311, 2-1-403)
7. In order to demonstrate compliance with the above permit conditions, the following records shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least five years from the date on which a record is made.
 - a. Records of all inspections and all maintenance work including bag replacement for the baghouse. Records of each inspection shall consist of a log containing the date of inspection and the initials of the personnel that inspects the baghouse.
 - b. The pressure drop records across the A1009 Baghouse as required by Part 5 above.
 - c. Source test results as required by Part 3 above.

All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations.

(Basis: Cumulative Increase, Regulation 1-441)

COND# 23991 *applies to S# 1027*

1. The owner/operator of S1027 Core Making Operation shall not exceed 11,750 gallons of Pepset or Techniset binder during any consecutive twelve-month period.
(Basis: Cumulative Increase)
2. The owner/operator may use an alternate binder other than the materials specified in Part 1, provided that the owner/operator can demonstrate to the satisfaction of the APCO that all of the following are satisfied:
 - a. Total POC emissions from the alternate binder at S1027 Core Making Operation do not exceed 12,608



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- pounds in any consecutive twelve- month period;
- b. The use of these materials does not increase toxic emissions above any chronic risk screening trigger level of Table 2-5-1 in Regulation 2-5.
(Basis: Cumulative Increase; Toxics)
3. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above parts, including the following information:
 - a. Quantities of each type of binder used at this source on a monthly basis.
 - b. If a material other than those specified in Part 1 is used, POC and toxic component contents of each material used; and mass emission calculations to demonstrate compliance with Part 2, on a monthly basis;
 - c. Monthly usage and/or emission calculations shall be totaled for each consecutive twelve-month period.

All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations.

(Basis: Cumulative Increase; Toxics)

COND# 24156 *applies to S# 1002*

1. The owner/operator of S-2 shall perform the following alterations:
 - a. Install curtain walls as proposed in drawing No. DC-3, dated 7/07.
 - b. Install, remove, replace, or modify ducting, fans, dampers as proposed in drawings Nos. DC-1 dated 1/08 and DC-2 dated 7/07.
2. No later than 112 calendar days from the receipt of Alteration No. 16928, the owner/operator shall complete the engineering phase of the project described in condition No.



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- 1.
- 3. No later than 30 calendar days after the completion of the engineering phase as stated in part 2, the owner/operator shall submit applications to appropriate agencies to obtain all permits, licenses, and approvals necessary to complete the project described in condition No. 1.
- 4. No later than 84 calendar days after obtaining all required permits, licenses, and approvals, the owner/operator shall award the contract to construct the project described in condition No. 1.
- 5. No later than 252 calendar days after the award of the construction contract, the installation shall be completed and the project described in Part 1 shall be fully functional. The owner/operator shall notify the District Compliance and Enforcement Division of any scheduled weekend plant operation on Thursday or earlier before the weekend.
- 6. The owner/operator shall notify the District Engineering Division no later than five calendar days after each requirement described in Parts 2, 3, 4, and 5 is completed.
- 7. The owner/operator may submit a request in writing to the District Engineering Division to modify the project scope and/or schedules specified in the permit conditions. The APCO shall make a determination whether to grant the modification.

~~~~~ END OF CONDITIONS ~~~~~

| S#   | Source Description                         | Annual Average lbs/day |     |     |     |      |
|------|--------------------------------------------|------------------------|-----|-----|-----|------|
|      |                                            | PART                   | ORG | NOx | SO2 | CO   |
| 1001 | ARC FURNACE                                | 2.9                    | 2.9 | 1.7 | 5.8 | 15   |
| 1002 | POUR-OFF AREA                              | .6                     | .8  | 1.5 | -   | 45   |
| 1003 | B SHAKE OUT (DUST COLLECTION)              | 5.9                    | .1  | -   | -   | -    |
| 1004 | A SHAKE OUT (DUST COLLECTION)              | 1.6                    | .1  | -   | -   | -    |
| 1005 | SAND SYSTEM (DUST COLLECTION)w/Whirl Air F | .1                     | 0   | -   | -   | -    |
| 1006 | SAND COOLER,6 SCREEN,w/Mold Release Coatin | .1                     | 0   | -   | -   | -    |
| 1007 | SAND SCREEN                                | .1                     | -   | -   | -   | -    |
| 1008 | MULLER                                     | .1                     | -   | -   | -   | -    |
| 1010 | MULLER, CORE SAND                          | -                      | -   | -   | -   | -    |
| 1011 | MULLER                                     | -                      | -   | -   | -   | -    |
| 1012 | CLEANING & GRINDING DEPT.                  | 1.3                    | -   | -   | -   | -    |
| 1013 | ARC-AIR BOOTH                              | -                      | -   | -   | -   | -    |
| 1014 | ARC-AIR BOOTH                              | -                      | -   | -   | -   | -    |
| 1015 | PANGBORN TABLE BLAST                       | -                      | -   | -   | -   | -    |
| 1016 | ROTO-BLAST                                 | -                      | -   | -   | -   | -    |
| 1017 | ROTOBLAST                                  | -                      | -   | -   | -   | -    |
| 1018 | HEAT TREATING FURNACES                     | .1                     | .3  | 4.7 | 0   | 3.9  |
| 1019 | RAW SAND RECEIVING                         | -                      | -   | -   | -   | -    |
| 1027 | Core-Making Operation                      | -                      | 2.2 | -   | -   | -    |
| 2001 | SAND SILO LOADING ELEVATOR                 | -                      | -   | -   | -   | -    |
| 2002 | SAND SILO #1                               | -                      | -   | -   | -   | -    |
| 2003 | SAND SILO #2                               | -                      | -   | -   | -   | -    |
| 2004 | BUCKET ELEVATOR                            | .1                     | -   | -   | -   | -    |
| 2005 | RESIN TANK (LIQUI-BIN)                     | -                      | .1  | -   | -   | -    |
| 2006 | SAND HEATER                                | -                      | 4.5 | -   | 1.6 | .2   |
| 2007 | SAND COATING                               | -                      | 4.5 | -   | 1.6 | .2   |
| 2008 | COATED SAND PUG MILL                       | -                      | 4.5 | -   | 1.6 | .2   |
| 2009 | COATED SAND VIBRATING SCREEN               | -                      | 4.5 | -   | 1.6 | .2   |
| 2010 | BUCKET ELEVATOR                            | -                      | 4.5 | -   | 1.6 | .2   |
| 2011 | COOLING TOWER, COATED SAND                 | -                      | 4.5 | -   | 1.6 | .2   |
| 2012 | BUCKET ELEVATOR                            | -                      | 4.5 | -   | 1.6 | .2   |
| 2013 | CORE MOLDING MACHINE                       | 0                      | -   | .1  | -   | 0    |
| 2014 | CORE MOLDING MACHINE                       | 0                      | -   | 0   | -   | 0    |
| 2015 | CORE MOLDING MACHINE                       | .1                     | 0   | .2  | -   | .1   |
| 2016 | CORE MOLDING MACHINE                       | .1                     | 0   | .2  | -   | .1   |
| 2017 | CORE MOLDING MACHINE                       | .1                     | 0   | .2  | -   | .1   |
| 2018 | CORE MOLDING MACHINE                       | .1                     | 0   | .2  | -   | .1   |
| 2019 | COATED SAND BIN                            | 1.2                    | -   | -   | -   | -    |
| 2020 | SHELL MOLDING MACHINE,SINGLE,with mold adh | 1.1                    | .2  | .4  | -   | .3   |
| 2021 | SHELL MOLDING MACHINE,TWIN,with mold adhes | 3.5                    | .5  | 1.3 | -   | 1.1  |
| 2022 | SHELL MOLDING MACHINE,TWIN,with mold adhes | 3.5                    | .5  | 1.3 | -   | 1.1  |
| 2023 | SHELL MOLDING MACHINE,TWIN,with mold adhes | 3.5                    | .5  | 1.3 | -   | 1.1  |
| 2024 | SHELL MOLDING MACHINE,SINGLE,with mold adh | 1.1                    | .2  | .4  | -   | .3   |
| 2025 | ABRASIVE BLASTER, CORE AREA                | -                      | -   | -   | -   | -    |
| 2026 | LARGE LADLE HEATER                         | -                      | -   | 0   | -   | 0    |
| 2027 | ELECTRIC ARC FURNACE                       | 1.1                    | 1.4 | .8  | 2.7 | 6.9  |
| 2028 | EAF LADLE STATION W/CANOPY HOOD            | -                      | -   | -   | -   | -    |
| 2029 | SHELL MOLD POURING STATION                 | 3.1                    | .1  | .7  | -   | -    |
| 2030 | CAST MOLD COOLING ROOM                     | -                      | .1  | .7  | -   | 20.8 |
| 2031 | SHAKEOUT & TRAY SANDING                    | 2.4                    | 0   | -   | -   | -    |



| S#          | Source Description                         | Annual Average lbs/day |      |     |      |      |
|-------------|--------------------------------------------|------------------------|------|-----|------|------|
|             |                                            | PART                   | ORG  | NOx | SO2  | CO   |
| 2032        | ROTOBLAST                                  | -                      | -    | -   | -    | -    |
| 2033        | ABRASIVE CUT-OFF SAW                       | .1                     | -    | -   | -    | -    |
| 2034        | ABRASIVE CUT OFF SAW                       | .1                     | -    | -   | -    | -    |
| 2035        | ABRASIVE CUT-OFF SAW                       | .1                     | -    | -   | -    | -    |
| 2036        | ABRASIVE CUT-OFF SAW                       | .1                     | -    | -   | -    | -    |
| 2037        | GRINDER                                    | .1                     | -    | -   | -    | -    |
| 2038        | GRINDER                                    | .1                     | -    | -   | -    | -    |
| 2039        | GRINDER                                    | .1                     | -    | -   | -    | -    |
| 2040        | GRINDER                                    | .1                     | -    | -   | -    | -    |
| 2044        | Sand Storage Silo                          | -                      | -    | -   | -    | -    |
| 2045        | Lump Breaker                               | -                      | -    | -   | -    | -    |
| 2046        | Flow Bin (Rejected Material)               | -                      | -    | -   | -    | -    |
| 2047        | Sand Cooler/Air Bed #1 (C-1)               | -                      | -    | -   | -    | -    |
| 2048        | Material Handling Equipment(3 hoppers,3 bu | -                      | -    | -   | -    | -    |
| 2049        | (R-1), Thermal Recycling Unit (Sand Reclam | 0                      | 0    | .3  | -    | .3   |
| 3001        | Electric Arc Furnace                       | 0                      | 0    | 0   | 0    | .1   |
| 3002        | Ladle Heater                               | -                      | -    | -   | -    | -    |
| 3004        | Casting Mold Shake Out Station             | .1                     | 0    | -   | -    | -    |
| 3005        | Blast Table                                | -                      | -    | -   | -    | -    |
| 3006        | Tumble Blast                               | -                      | -    | -   | -    | -    |
| 3007        | New Sand Silo #1                           | -                      | -    | -   | -    | -    |
| 3009        | Sand Cooler Classifier                     | .1                     | -    | -   | -    | -    |
| 3010        | Sand Conditioning Unit #1                  | 0                      | -    | -   | -    | -    |
| 3011        | Sand Conditioning Unit #2                  | 0                      | -    | -   | -    | -    |
| 3012        | Return Sand Bin #1                         | .1                     | -    | -   | -    | -    |
| 3013        | Reclaimed Sand Bin #2                      | .1                     | -    | -   | -    | -    |
| 3014        | Sand Mixer utilizing Techniset F6000/17712 | .1                     | 1    | -   | -    | -    |
| 3015        | New Sand Receiving Bucket Elevator #1      | -                      | -    | -   | -    | -    |
| 3016        | Bucket Elevator #2 Returned Sand           | .1                     | -    | -   | -    | -    |
| 3017        | Bucket Elevator #3 Reclaimed Sand          | .1                     | -    | -   | -    | -    |
| 3018        | Mold Coating Operation                     | -                      | 1.8  | -   | -    | -    |
| 3019        | Pouring.Cooling                            | .1                     | 0    | -   | -    | .3   |
| 3020        | Holcote 578 CCD                            | -                      | .2   | -   | -    | -    |
| 32000       | MISCELLANEOUS MINOR SOURCES                | -                      | -    | .1  | -    | .1   |
| 32001       | MINOR SOURCES                              | -                      | -    | .1  | -    | .1   |
| T O T A L S |                                            | 35.7                   | 44.4 | 16  | 19.6 | 98.2 |

\*\* PLANT TOTALS FOR EACH EMITTED TOXIC POLLUTANT \*\*

| Pollutant Name<br>----- | Emissions lbs/day<br>----- |
|-------------------------|----------------------------|
| Benzene                 | .07                        |
| Formaldehyde            | .38                        |
| Isopropyl alcohol       | 1.51                       |
| Phenol                  | 1.14                       |
| Acetaldehyde            | .06                        |
| Naphthalene             | .03                        |
| Cresol                  | .01                        |
| Manganese               | .10                        |