617049840 CARDINAL FG CO
Parkway Dr At Badger Rd
Menomonie

DNR Region: West Central
County: DUNN
SIC Code: 3211 -- FLAT GLASS
NAICS Code: 327211 -- Flat Glass Manufacturing

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Area: 680993 ft2

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DEVICE AND PROCESS LIST

DEVICE ID / > PROCESS ID	DEVICE CODE / > PROCESS CODE	DEVICE NAME / > PROCESS NAME	DEVICE CATEGORY / > PROCESS DESCRIPTION
C01	ESP	Control device C01 is a 3-field electrostatic precipitator. The total collection area is 41,160 ft2. The electrostatic precipitator is used to control particulate matter emissions from the dry scrubber (C06) and collects calcium sulfate produced by the wet/dry scrubber. EI: ESP	Electrostatic Precipitators
--> 01	CONTROLLING	ESP	Used for collectors
C02	BAGHOUSE	This baghouse captures dust generated by the collection and handling of cullet (broken glass).1111The control efficiency is 99 percent. EI: CULLET RETURN BAGHOUSE	Baghouse/Fabric Filter
--> 01	CONTROLLING	CULLET RETURN DUST COLLECTOR	Used for collectors
C04	BAGHOUSE	This baghouse captures dust generated by handling of raw materials at the tops of the batch plant elevators.1111The control efficiency is 99 percent. EI: TOP, BOTTOM AND MIXING BAGHOUSES	Baghouse/Fabric Filter
--> 01	CONTROLLING	TOP OF RAW MATERIAL ELEVATOR	Used for collectors
C06	CONTROL	Control device C06 controls sulfur dioxide emissions generated at the annealing lehr.	Miscellaneous
--> 01	CONTROLLING	WET DRY SCRUBBER, SOD CARB	Used for collectors
P01	GENERIC	Glass Furnace	Miscellaneous
--> 01	GENERIC	GLASS MANUFACTURING	Generic Throughput Process
P02	CONVEYOR	Cullet Handling Operations	Miscellaneous
--> 01	GENERIC	Cullet Return System	Generic Throughput Process
P04	GENERIC	Transfer of material at top of batch plant elevators. Please correct process code, this is not an incineratior.	Miscellaneous
--> 01	GENERIC	PROCESS DUST COLLECTION	Generic Throughput Process
P06	GENERATOR	1,000 kW Backup Diesel Generator	Boilers/Furnaces
--> 01	GENERIC	ELECTRIC GENERATION	Generic Throughput Process
P07	SPRAY BOOTH	1,100 kW Backup Diesel Generator - Please correct process code, this is not a spray booth.	Painting/Coating
--> 00	GENERIC	GLASS CUTTING	Generic Throughput Process
P07A	GENERATOR	1,100 kW Diesel Fired Generator	Boilers/Furnaces
--> 01	GENERIC	1,100 kW Diesel Fired Generator	Generic Throughput Process
P08	GENERIC	Annealing Lehr - Please correct process code, this is not an incinerator.	Miscellaneous
--> 01	GENERIC	LEHRING	Generic Throughput Process
P09	DRYER	Glass Cutting - process code, dryer is closest matching device code	Boilers/Furnaces

--> 01	GENERIC	DRYING	Generic Throughput Process
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P09A	COATING LINE	Glass Cutting	Painting/Coating
--> 01	GENERIC	Glass Cutting	Generic Throughput Process
---	---	---	---
P10	GENERIC	1250 kW Emergency Diesel Generator	Miscellaneous
--> 01	GENERIC	Electric Generating	Generic Throughput Process
---	---	---	---
P10A	GENERATOR	1,250 kW Generator	Boilers/Furnaces
--> 01	GENERIC	1,250 kW Generator	Generic Throughput Process
---	---	---	---
P99	HEATER	Miscellaneous Warehouse and Shipping Heaters	Boilers/Furnaces
--> 01	GENERIC	Miscellaneous Warehouse and Shipping Heaters	Generic Throughput Process
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EMISSION FLOW SUMMARY

P01-01 ---(100%)---> S01-01 ---(100%)---> OUT

P02-01 ---(100%)---> C02-01

C02-01 ---(100%)---> S02-01 ---(100%)---> OUT

P04-01 ---(100%)---> C04-01

C04-01 ---(100%)---> S04-01 ---(100%)---> OUT

P06-01 ---(100%)---> S06-01 ---(100%)---> OUT

P07-00 ---(100%)---> OUT

P07A-01 ---(100%)---> S07-01 ---(100%)---> OUT

P08-01 ---(100%)---> S08-01 ---(100%)---> OUT

P09-01 ---(100%)---> S07-01 ---(100%)---> OUT

P09A-01 ---(100%)---> OUT

P10-01 ---(100%)---> OUT

P10A-01 ---(100%)---> S10-01 ---(100%)---> OUT

P99-01 ---(100%)---> OUT

D E V I C E S / P R O C E S S E S D E T A I L S

C01 **Electrostatic Precipitators** **Electrostatic Precipitator**

DEVICE DESC: Control device C01 is a 3-field electrostatic precipitator. The total collection area is 41,160 ft2. The electrostatic precipitator is used to control particulate matter emissions from the dry scrubber (C06) and collects calcium sulfate produced by the wet/dry scrubber. EI: ESP

CONSTR DATE: 01/01/1991

DEVICE COMMENTS:

C01, Process 01 **Used for collectors**

PROCESS NAME: ESP

PROCESS COMMENTS:

SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr

QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%

--INCOMING STREAMS--

C06-01 (100%) --> C01-01

--OUTGOING STREAMS--

C01-01 (100%) --> OUT

C02 **Baghouse/Fabric Filter** **Baghouse**

DEVICE DESC: This baghouse captures dust generated by the collection and handling of cullet (broken glass).1111The control efficiency is 99 percent. EI: CULLET RETURN BAGHOUSE

CONSTR DATE: 01/01/1991

DEVICE COMMENTS: EI: Cullet return baghouse runs continuously except for maintenance downtime.

C02, Process 01 **Used for collectors**

PROCESS NAME: CULLET RETURN DUST COLLECTOR

PROCESS COMMENTS: Cullet return dust collector runs continuously except for maintenance.

SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%

--INCOMING STREAMS--

P02-01 (100%) --> C02-01

--OUTGOING STREAMS--

C02-01 ---(100%)---> S02-01 ---(100%)---> OUT

C04 **Baghouse/Fabric Filter** **Baghouse**

DEVICE DESC: This baghouse captures dust generated by handling of raw materials at the tops of the batch plant elevators.1111The control efficiency is 99 percent. EI: TOP, BOTTOM AND MIXING BAGHOUSES

CONSTR DATE: 01/01/1991

DEVICE COMMENTS: EI: Combined Top, Bottom and Mixing Baghouses (C03, C04 and C05).

C04, Process 01 **Used for collectors**

PROCESS NAME: TOP OF RAW MATERIAL ELEVATOR

PROCESS COMMENTS: Top of Elevator Baghouse S04

SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%

--INCOMING STREAMS--

P04-01 (100%) --> C04-01

--OUTGOING STREAMS--

C04-01 ---(100%)---> S04-01 ---(100%)---> OUT

C06 **Miscellaneous Device** **Miscellaneous Control**

DEVICE DESC: Control device C06 controls sulfur dioxide emissions generated at the annealing lehr.

CONSTR DATE: 01/01/1991

DEVICE COMMENTS:

--CTRL EFFIC--

POLLUTANT	VALUE
PM10	0%
PM	0%

C06, Process 01 **Used for collectors**

PROCESS NAME: WET DRY SCRUBBER, SOD CARB

PROCESS COMMENTS:

SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr

QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%

--OUTGOING STREAMS--

C06-01 ---(100%)---> C01-01

P01 **Miscellaneous** **Any Device**

DEVICE DESC: Glass Furnace
CONSTR DATE: 01/01/1991
DEVICE COMMENTS:

P01, Process 01 **Generic Throughput Process**

PROCESS NAME: GLASS MANUFACTURING
SCC CODE: 30501403
PROCESS COMMENTS: Glass Melting Furnace
SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr
QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%
ANNUAL TPUT: 236056.73 TON of PRODUCT - MINERALS
AVG TPUT: 26.94712 TON/HR
MAX TPUT: 27.08 TON/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
CO2	1107.02 LB / TON	STK
NOX	1.61 LB / TON	STK
PM	.22867 LB / TON	STK
PM10	.22867 LB / TON	STK
PM2PT5	.22867 LB / TON	STK
ROG	.0075 LB / TON	STK
SO2	.52131 LB / TON	STK

--EMISSIONS / YR--

POLLUTANT	NR438_THRESH	UNCNTRLD	CNTRLD	OZONE/DY
NOX (c)	10000 LB	380,051.335 LB	380,051.335 LB	1,044.097 LB
PM (c)	10000 LB	53,979.092 LB	53,979.092 LB	
PM10 (c)	10000 LB	53,979.092 LB	53,979.092 LB	
ROG (c)	6000 LB	1,770.425 LB	1,770.425 LB	4.864 LB
SO2 (c)	10000 LB	123,058.734 LB	123,058.734 LB	
CO2 (c)	200000000 LB	261,319,521.245 LB	261,319,521.245 LB	
PM2PT5 (c)	10000 LB	53,979.092 LB	53,979.092 LB	

--INCOMING STREAMS--

TPUT --> P01-01

--OUTGOING STREAMS--

P01-01 ---(100%)---> S01-01 ---(100%)---> OUT

P02 **Miscellaneous** **Conveyor**

DEVICE DESC: Cullet Handling Operations
CONSTR DATE: 01/01/1991
DEVICE COMMENTS:

P02, Process 01 **Generic Throughput Process**

PROCESS NAME: Cullet Return System
SCC CODE: 30501221
PROCESS COMMENTS:
SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr
QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%
ANNUAL TPUT: 45164.41 TON of PRODUCT - MINERALS
AVG TPUT: 5.15575 TON/HR
MAX TPUT: 27.08 TON/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
PM	.088 LB / TON	MBAL
PM10	.088 LB / TON	MBAL

--EMISSIONS / YR--

POLLUTANT	NR438_THRESH	UNCNTRLD	CNTRLD	OZONE/DY
PM (c)	10000 LB	3,974.468 LB	3,974.468 LB	
PM10 (c)	10000 LB	3,974.468 LB	3,974.468 LB	

--INCOMING STREAMS--

TPUT --> P02-01

--OUTGOING STREAMS--

P02-01 ---(100%)---> C02-01

C02-01 ---(100%)---> S02-01 ---(100%)---> OUT

P04 **Miscellaneous** **Any Device**

DEVICE DESC: Transfer of material at top of batch plant elevators. Please correct process code, this is not an incineratior.
CONSTR DATE: 01/01/1991
DEVICE COMMENTS: Process P04 is Top of Elevator. Bottom and Mixing are discharged in buildings. This is a bag house, not an incinerator, the SCC code should be 30501221.

P04, Process 01 **Generic Throughput Process**

PROCESS NAME: PROCESS DUST COLLECTION
SCC CODE: 30501221
PROCESS COMMENTS: Processes weigh, main, and unloading dust collection combined. Each process operates intermittently. Activity time is estimated based on process operation.

SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%
ANNUAL TPUT:	215959 TON	of PRODUCT - MINERALS		
AVG TPUT:	24.65285 TON/HR			
MAX TPUT:	100 TON/HR			

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
PM	.001 LB / TON	STK
PM10	.001 LB / TON	STK

--EMISSIONS / YR--

POLLUTANT	NR438_THRESH	UNCNTRLD	CNTRLD	OZONE/DY
PM (c)	10000 LB	215.959 LB	215.959 LB	
PM10 (c)	10000 LB	215.959 LB	215.959 LB	

--INCOMING STREAMS--

TPUT --> P04-01

--OUTGOING STREAMS--

P04-01 ---(100%)---> C04-01

C04-01 ---(100%)---> S04-01 ---(100%)---> OUT

P06 **Boilers/Furnaces** **Generator**

DEVICE DESC: 1,000 kW Backup Diesel Generator
CONSTR DATE: 01/01/1991
DEVICE COMMENTS: On process page this is listed as a boiler/furnace. Please correct.
MAX RATED CAPACITY: MMBTU/HR

P06, Process 01 **Generic Throughput Process**

PROCESS NAME: ELECTRIC GENERATION
SCC CODE: 20200102
PROCESS COMMENTS:
SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr
QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%
ANNUAL TPUT: 325.97 GAL of Fuel Oil - Distillate (aka Diesel)
AVG TPUT: .03721 GAL/HR
MAX TPUT: 75.5 GAL/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
CO2	22600 LB / E3 GAL	EPA
NOX	604 LB / E3 GAL	EPA
PM	42.5 LB / E3 GAL	EPA
PM10	42.5 LB / E3 GAL	EPA
PM2PT5	42.5 LB / E3 GAL	EPA
ROG	49.3 LB / E3 GAL	EPA
SO2	.0397 LB / GAL	DNR

--EMISSIONS / YR--

POLLUTANT	NR438_THRESH	UNCNTRLD	CNTRLD	OZONE/DY
NOX (c)	10000 LB	196.886 LB	196.886 LB	.541 LB
PM (c)	10000 LB	13.854 LB	13.854 LB	
PM10 (c)	10000 LB	13.854 LB	13.854 LB	
ROG (c)	6000 LB	16.070 LB	16.070 LB	.044 LB
SO2 (c)	10000 LB	12.941 LB	12.941 LB	
CO2 (c)	200000000 LB	7,366.922 LB	7,366.922 LB	
PM2PT5 (c)	10000 LB	13.854 LB	13.854 LB	

--INCOMING STREAMS--

TPUT --> P06-01

--OUTGOING STREAMS--

P06-01 ---(100%)---> S06-01 ---(100%)---> OUT

P07 **Painting/Coating** **Spray Booth**

DEVICE DESC: 1,100 kW Backup Diesel Generator - Please correct process code, this is not a spray booth.

CONSTR DATE: 01/01/1991

DEVICE COMMENTS: Scc code should be 20200102. The process data needs to be swapped with P09.

P07, Process 00 **Generic Throughput Process**

PROCESS NAME: GLASS CUTTING

SCC CODE: 40100255

PROCESS COMMENTS: P07 is supposed to be a diesel generator. Data is swapped with P09, where glass cutting should be reported.

SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%
ANNUAL TPUT:	0 GAL	of Other solvent		
AVG TPUT:	0 GAL/HR			
MAX TPUT:	0 GAL/HR			

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
ROG	6.5 LB / GAL	SDS

--INCOMING STREAMS--

TPUT --> P07-00

--OUTGOING STREAMS--

P07-00 (100%) --> OUT

P07A **Boilers/Furnaces** **Generator**

DEVICE DESC: 1,100 kW Diesel Fired Generator
CONSTR DATE:
DEVICE COMMENTS:
MAX RATED CAPACITY: MMBTU/HR

P07A, Process 01 **Generic Throughput Process**

PROCESS NAME: 1,100 kW Diesel Fired Generator
SCC CODE: 20200102
PROCESS COMMENTS:
SCHEDULE: .5 Hrs/Day 1 Dys/Wk 15 Dys/Yr
QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%
ANNUAL TPUT: 414.16 GAL of Fuel Oil - Distillate (aka Diesel)
AVG TPUT: 55.22133 GAL/HR
MAX TPUT: 74.4 GAL/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
CO2	22600 LB / E3 GAL	EPA
NOX	604 LB / E3 GAL	EPA
PM	42.5 LB / E3 GAL	EPA
PM10	42.5 LB / E3 GAL	EPA
PM2PT5	42.5 LB / E3 GAL	EPA
ROG	49.3 LB / E3 GAL	EPA
SO2	39.7 LB / E3 GAL	EPA

--EMISSIONS / YR--

POLLUTANT	NR438_THRESH	UNCNTRLD	CNTRLD	OZONE/DY
NOX (c)	10000 LB	250.153 LB	250.153 LB	4.811 LB
PM (c)	10000 LB	17.602 LB	17.602 LB	
PM10 (c)	10000 LB	17.602 LB	17.602 LB	
ROG (c)	6000 LB	20.418 LB	20.418 LB	.393 LB
SO2 (c)	10000 LB	16.442 LB	16.442 LB	
CO2 (c)	200000000 LB	9,360.016 LB	9,360.016 LB	
PM2PT5 (c)	10000 LB	17.602 LB	17.602 LB	

--INCOMING STREAMS--

TPUT --> P07A-01

--OUTGOING STREAMS--

P07A-01 ---(100%)---> S07-01 ---(100%)---> OUT

P08 **Miscellaneous** **Any Device**

DEVICE DESC: Annealing Lehr - Please correct process code, this is not an incinerator.
CONSTR DATE: 01/01/1991
DEVICE COMMENTS: P08 is SO2 exhaust from the application at the lehr

P08, Process 01 **Generic Throughput Process**

PROCESS NAME: LEHRING
SCC CODE: 30400901
PROCESS COMMENTS: Glass Annealing Lehring
SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr
QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%
ANNUAL TPUT: 236056.73 TON of PRODUCT - METALS
AVG TPUT: 26.94712 TON/HR
MAX TPUT: 27.08 TON/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
ROG	0 LB / TON	EPA
SO2	.0339 LB / TON	STK

--EMISSIONS / YR--

POLLUTANT	NR438_THRESH	UNCNTRLD	CNTRLD	OZONE/DY
SO2 (c)	10000 LB	8,002.323 LB	8,002.323 LB	

--INCOMING STREAMS--

TPUT --> P08-01

--OUTGOING STREAMS--

P08-01 ---(100%)---> S08-01 ---(100%)---> OUT

P09 **Boilers/Furnaces** **Drying Equipment**

DEVICE DESC: Glass Cutting - process code, dryer is closest matching device code

CONSTR DATE: 01/01/1991

DEVICE COMMENTS: EI: P09 is fugitive evaporation of mineral spirts from the glass cutting operations.

MAX RATED CAPACITY: MMBTU/HR

P09, Process 01 **Generic Throughput Process**

PROCESS NAME: DRYING

SCC CODE: 20200102

PROCESS COMMENTS: This should not be fugitive drying of mineral spirits during glass cutting. Diesel generators P07 and new P10 are reported here.

SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr

QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%

ANNUAL TPUT: 0 GAL of Fuel Oil - Distillate (aka Diesel)

AVG TPUT: 0 GAL/HR

MAX TPUT: 0 GAL/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
CO2	22600 LB / E3 GAL	EPA
NOX	604 LB / E3 GAL	EPA
PM	42.5 LB / E3 GAL	EPA
PM10	42.5 LB / E3 GAL	EPA
PM2PT5	42.5 LB / E3 GAL	EPA
ROG	49.3 LB / E3 GAL	EPA
SO2	39.7 LB / E3 GAL	EPA

--INCOMING STREAMS--

TPUT --> P09-01

--OUTGOING STREAMS--

P09-01 ---(100%)---> S07-01 ---(100%)---> OUT

P09A **Painting/Coating** **Coating Line**

DEVICE DESC: Glass Cutting
CONSTR DATE:
DEVICE COMMENTS:

P09A, Process 01 **Generic Throughput Process**

PROCESS NAME: Glass Cutting
SCC CODE: 40100255
PROCESS COMMENTS:
SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr
QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%
ANNUAL TPUT: 835 GAL of Other solvent
AVG TPUT: .09532 GAL/HR
MAX TPUT: 3 GAL/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
ROG	6.5 LB / GAL	EPA

--EMISSIONS / YR--

POLLUTANT	NR438_THRESH	UNCNTRLD	CNTRLD	OZONE/DY
ROG (c)	6000 LB	5,427.500 LB	5,427.500 LB	14.911 LB

--INCOMING STREAMS--

TPUT --> P09A-01

--OUTGOING STREAMS--

P09A-01 (100%) --> OUT

P10 **Miscellaneous** **Any Device**

DEVICE DESC: 1250 kW Emergency Diesel Generator
CONSTR DATE:
DEVICE COMMENTS: SCR Emergency Diesel Generator

P10, Process 01 **Generic Throughput Process**

PROCESS NAME: Electric Generating
SCC CODE: 30190001
PROCESS COMMENTS:
SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr
QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%
ANNUAL TPUT: 0 GAL of Fuel Oil - Distillate (aka Diesel)
AVG TPUT: 0 GAL/HR
MAX TPUT: 0 GAL/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
NOX	20 LB / E3 GAL	EPA
ROG	.2 LB / E3 GAL	EPA
SO2	39.7 LB / E3 GAL	EPA

--INCOMING STREAMS--

TPUT --> P10-01

--OUTGOING STREAMS--

P10-01 (100%) --> OUT

P10A **Boilers/Furnaces** **Generator**

DEVICE DESC: 1,250 kW Generator
CONSTR DATE:
DEVICE COMMENTS:
MAX RATED CAPACITY: MMBTU/HR

P10A, Process 01 **Generic Throughput Process**

PROCESS NAME: 1,250 kW Generator
SCC CODE: 20200102
PROCESS COMMENTS:
SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr
QTRLY SCHEDULE: Q1: 25% Q2: 25% Q3: 25% Q4: 25%
ANNUAL TPUT: 507.5 GAL of Fuel Oil - Distillate (aka Diesel)
AVG TPUT: .05793 GAL/HR
MAX TPUT: 74.4 GAL/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
CO2	22600 LB / E3 GAL	EPA
NOX	604 LB / E3 GAL	EPA
PM	42.5 LB / E3 GAL	EPA
PM10	42.5 LB / E3 GAL	EPA
PM2PT5	42.5 LB / E3 GAL	EPA
ROG	49.3 LB / E3 GAL	EPA
SO2	39.7 LB / E3 GAL	EPA

--EMISSIONS / YR--

POLLUTANT	NR438_THRESH	UNCNTRLD	CNTRLD	OZONE/DY
NOX (c)	10000 LB	306.530 LB	306.530 LB	.842 LB
PM (c)	10000 LB	21.569 LB	21.569 LB	
PM10 (c)	10000 LB	21.569 LB	21.569 LB	
ROG (c)	6000 LB	25.020 LB	25.020 LB	.069 LB
SO2 (c)	10000 LB	20.148 LB	20.148 LB	
CO2 (c)	200000000 LB	11,469.500 LB	11,469.500 LB	
PM2PT5 (c)	10000 LB	21.569 LB	21.569 LB	

--INCOMING STREAMS--

TPUT --> P10A-01

--OUTGOING STREAMS--

P10A-01 ---(100%)---> S10-01 ---(100%)---> OUT

P99 **Boilers/Furnaces** **Heater**

DEVICE DESC: Miscellaneous Warehouse and Shipping Heaters
CONSTR DATE:
DEVICE COMMENTS:
MAX RATED CAPACITY: MMBTU/HR

P99, Process 01 **Generic Throughput Process**

PROCESS NAME: Miscellaneous Warehouse and Shipping Heaters
SCC CODE: 10100602
PROCESS COMMENTS:
SCHEDULE: 24 Hrs/Day 7 Dys/Wk 365 Dys/Yr
QTRLY SCHEDULE: Q1: 40% Q2: 20% Q3: 10% Q4: 30%
ANNUAL TPUT: 40801595 FT3 of Natural Gas
AVG TPUT: 4657.71632 FT3/HR
MAX TPUT: 12327.33 FT3/HR

--EMISSION FACTORS--

POLLUTANT	VALUE / UNIT	ORIGIN
CO2	120000 LB / MMCF	EPA
NOX	100 LB / MMCF	EPA
PM	7.6 LB / MMCF	EPA
PM10	7.6 LB / MMCF	EPA
PM2PT5	7.6 LB / MMCF	EPA
ROG	5.5 LB / MMCF	EPA
SO2	.6 LB / MMCF	EPA

--EMISSIONS / YR--

POLLUTANT	NR438_THRESH	UNCNTRLD	CNTRLD	OZONE/DY
NOX (c)	10000 LB	4,080.160 LB	4,080.160 LB	4.484 LB
PM (c)	10000 LB	310.092 LB	310.092 LB	
PM10 (c)	10000 LB	310.092 LB	310.092 LB	
ROG (c)	6000 LB	224.409 LB	224.409 LB	.247 LB
SO2 (c)	10000 LB	24.481 LB	24.481 LB	
CO2 (c)	200000000 LB	4,896,191.400 LB	4,896,191.400 LB	
PM2PT5 (c)	10000 LB	310.092 LB	310.092 LB	

--INCOMING STREAMS--

TPUT --> P99-01

--OUTGOING STREAMS--

P99-01 (100%) --> OUT

S01	**Stack**	**Stack**	
DEVICE DESC:	Glass melting furnace exhaust stack		
CONSTR DATE:	09/20/1992		
DEVICE COMMENTS:			
STACK HEIGHT:	46.32 m		or 151.97 ft
STACK DIAMETER:	2.43 m		or 7.97 ft
STACK TEMP:	461.4 K		or 370.85 F
STACK VELOCITY:	4.83 m/s		or 15.85 ft/s

S01, Process 01	**Releasing/Discharging material to the atmosphere**			
PROCESS NAME:	GLASS FURNACE EXHAUST			
PROCESS COMMENTS:				
SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%

--INCOMING STREAMS--

P01-01 (100%) --> S01-01

--OUTGOING STREAMS--

S01-01 (100%) --> OUT

S02	**Stack**	**Stack**	
DEVICE DESC:	Cullet handling dust collection stack		
CONSTR DATE:	09/20/1992		
DEVICE COMMENTS:			
STACK HEIGHT:	15.23 m		or 49.97 ft
STACK DIAMETER:	.85 m		or 2.79 ft
STACK TEMP:	294.2 K		or 69.89 F
STACK VELOCITY:	22.45 m/s		or 73.65 ft/s

S02, Process 01	**Releasing/Discharging material to the atmosphere**			
PROCESS NAME:	CULLET RETURN DUST COLLECTOR EXHAUST			
PROCESS COMMENTS:				
SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%

--INCOMING STREAMS--

C02-01 (100%) --> S02-01

--OUTGOING STREAMS--

S02-01 (100%) --> OUT

S04	**Stack**	**Stack**	
DEVICE DESC:	Stack on dust collector for transfer of material at the top of the batch plant.		
CONSTR DATE:	09/20/1992		
DEVICE COMMENTS:			
STACK HEIGHT:	42.97 m		or 140.98 ft
STACK DIAMETER:	.33 m		or 1.08 ft
STACK TEMP:	294.2 K		or 69.89 F
STACK VELOCITY:	11.13 m/s		or 36.52 ft/s

S04, Process 01	**Releasing/Discharging material to the atmosphere**			
PROCESS NAME:	WEIGH, MAIN, AND UNLOADING COLLECTOR EXHAUST			
PROCESS COMMENTS:	Each of these are operated intermittently.			
SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%

--INCOMING STREAMS--

C04-01 (100%) --> S04-01

--OUTGOING STREAMS--

S04-01 (100%) --> OUT

S06	**Stack**	**Stack**	
DEVICE DESC:	Stack for 1,000 kw Back Up Diesel Generator		
CONSTR DATE:	09/20/1992		
DEVICE COMMENTS:			
STACK HEIGHT:	17.67 m		or 57.97 ft
STACK DIAMETER:	.3 m		or .98 ft
STACK TEMP:	769.2 K		or 924.89 F
STACK VELOCITY:	53.97 m/s		or 177.07 ft/s

S06, Process 01	**Releasing/Discharging material to the atmosphere**			
PROCESS NAME:	DIESEL GENERATOR #1 EXHAUST.			
PROCESS COMMENTS:				
SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%

--INCOMING STREAMS--

P06-01 (100%) --> S06-01

--OUTGOING STREAMS--

S06-01 (100%) --> OUT

S07	**Stack**	**Stack**	
DEVICE DESC:	Stack for 1,100 kW Back Up Diesel Generator		
CONSTR DATE:	10/17/2003		
DEVICE COMMENTS:			
STACK HEIGHT:	17.67 m		or 57.97 ft
STACK DIAMETER:	.3 m		or .98 ft
STACK TEMP:	731.4 K		or 856.85 F
STACK VELOCITY:	22.85 m/s		or 74.97 ft/s

S07, Process 01	**Releasing/Discharging material to the atmosphere**			
PROCESS NAME:				
PROCESS COMMENTS:				
SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%

--INCOMING STREAMS--

P09-01 (100%) --> S07-01

P07A-01 (100%) --> S07-01

--OUTGOING STREAMS--

S07-01 (100%) --> OUT

S08	**Stack**	**Stack**	
DEVICE DESC:	Exhaust of fugitive SO2 that is applied at the lehr		
CONSTR DATE:	09/24/1992		
DEVICE COMMENTS:			
STACK HEIGHT:	9.14 m		or 29.99 ft
STACK DIAMETER:	.45 m		or 1.48 ft
STACK TEMP:	394.2 K		or 249.89 F
STACK VELOCITY:	19.87 m/s		or 65.19 ft/s

S08, Process 01	**Releasing/Discharging material to the atmosphere**			
PROCESS NAME:	ANNEALING LEHR BUILDING VENT FAN			
PROCESS COMMENTS:	Annealing Lehr Building Vent Fan			
SCHEDULE:	24 Hrs/Day	7 Dys/Wk	365 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%

--INCOMING STREAMS--

P08-01 (100%) --> S08-01

--OUTGOING STREAMS--

S08-01 (100%) --> OUT

S10	**Stack**	**Stack**	
DEVICE DESC:	1250 kW Emergency Diesel Generator Stack		
CONSTR DATE:			
DEVICE COMMENTS:			
STACK HEIGHT:	m		or ft
STACK DIAMETER:	m		or ft
STACK TEMP:	K		or F
STACK VELOCITY:	m/s		or ft/s

S10, Process 01	**Releasing/Discharging material to the atmosphere**			
PROCESS NAME:				
PROCESS COMMENTS:				
SCHEDULE:	0 Hrs/Day	0 Dys/Wk	0 Dys/Yr	
QTRLY SCHEDULE:	Q1: 25%	Q2: 25%	Q3: 25%	Q4: 25%

--INCOMING STREAMS--

P10A-01 (100%) --> S10-01

--OUTGOING STREAMS--

S10-01 (100%) --> OUT

FACILITY EMISSIONS SUMMARY

-2021 SUMMARY-	--2021--	--2021--	--2021--	--2021--
--POLLUTANT--	--NR438_THRESH--	--UNCNTRLD/YR--	--CNTRLD/YR--	--OZONE/DY--
NOX	10000 LB	384,885.06332 LB	384,885.06332 LB	1,054.77442 LB
PM	10000 LB	58,532.63593 LB	58,532.63593 LB	
PM10	10000 LB	58,532.63593 LB	58,532.63593 LB	
ROG	6000 LB	7,483.84241 LB	7,483.84241 LB	20.52667 LB
SO2	10000 LB	131,135.06894 LB	131,135.06894 LB	
CO2	200000000 LB	266,243,909.08260 LB	266,243,909.08260 LB	
PM2PT5	10000 LB	54,342.20885 LB	54,342.20885 LB	

-2020 SUMMARY-	--2020--	--2020--	--2020--	--2020--
--POLLUTANT--	--NR438_THRESH--	--UNCNTRLD/YR--	--CNTRLD/YR--	--OZONE/DY--
NOX	10000 LB	2,515,676.92686 LB	2,515,676.92686 LB	6,911.20034 LB
PM	10000 LB	56,294.99325 LB	56,294.99325 LB	
PM10	10000 LB	56,294.99325 LB	56,294.99325 LB	
ROG	6000 LB	8,638.30885 LB	8,638.30885 LB	23.73162 LB
SO2	10000 LB	129,187.56185 LB	129,187.56185 LB	
CO2	200000000 LB	241,301,557.62680 LB	241,301,557.62680 LB	
PM2PT5	10000 LB	52,183.49204 LB	52,183.49204 LB	

REPORT LEGEND

--EMISSIONS--

f = Federal Hap; s = State Hap; fs = Fed and State Hap