

FINAL

Wisconsin Department of Natural Resources
Air Management ProgramFID: 241019900

241019900 WI DOA / UW-MILWAUKEE
3359 N Downer Ave
Milwaukee

DNR Region: Southeast

County: MILWAUKEE

SIC Code: 8221 -- COLLEGES AND UNIVERSITIES

NAICS Code: 611310 -- Colleges, Universities, and Professional Schools

Employees: 10

Area: 1000 ft2

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DEVICE AND PROCESS LIST

<u>DEVICE ID</u>	<u>DEVICE CODE</u>	<u>DEVICE NAME</u>	<u>DEVICE CATEGORY</u>
> <u>PROCESS ID</u>	> <u>PROCESS CODE</u>	> <u>PROCESS NAME</u>	> <u>PROCESS DESCRIPTION</u>
B20	BOILER	150 mmBtu/hr natural gas/#2 fuel oil fired boiler EI:	Boiler/Furnace
--> 01	GENERIC	INDUSTRIAL, WATERTUBE, GAS /OIL	Generic Throughput Process
--> 02	GENERIC	NAT GAS	Generic Throughput Process
		#2 OIL	
B21	BOILER	150 mmBtu/hr natural gas/#2 fuel oil fired boiler EI: WATER TUBE BOILER	Boiler/Furnace
--> 01	GENERIC	NATURAL GAS	Generic Throughput Process
--> 02	GENERIC	DISTILLATE OIL	Generic Throughput Process
B22	BOILER	WATER TUBE BOILER	Boiler/Furnace
--> 01	GENERIC	NATURAL GAS	Generic Throughput Process
--> 02	GENERIC	DISTILLATE OIL	Generic Throughput Process
B23	BOILER	INDUSTRIAL, WATERTUBE, GAS /OIL	Boiler/Furnace
--> 01	GENERIC	NATURAL GAS	Generic Throughput Process
--> 02	GENERIC	#2 FUEL OIL	Generic Throughput Process

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EMISSION FLOW SUMMARY

B20-01 ---(100%)---> S10-01 ---(100%)---> OUT
B20-02 ---(100%)---> S10-01 ---(100%)---> OUT
B21-01 ---(100%)---> S11-01 ---(100%)---> OUT
B21-02 ---(100%)---> S11-01 ---(100%)---> OUT
B22-01 ---(100%)---> S12-01 ---(100%)---> OUT
B22-02 ---(100%)---> S12-01 ---(100%)---> OUT
B23-01 ---(100%)---> S13-01 ---(100%)---> OUT
B23-02 ---(100%)---> S13-01 ---(100%)---> OUT

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DEVICES/PROCESSES DETAILS

B20 **Boiler/Furnace** **Boiler**
DEVICE DESC: 150 mmBtu/hr natural gas/#2 fuel oil fired boiler EI:
INDUSTRIAL,WATERTUBE, GAS /OIL
CONSTR DATE: 11/01/1969
DEVICE COMMENTS: EI: Boilers 1,2,3 are being reported separately.
Boiler #4 is now device B23.
MAX RATED CAPACITY: 150 MMBTU/HR

B20, Process 01 **Generic Throughput Process**

PROCESS NAME: NAT GAS
SCC CODE: 10300601
PROCESS COMMENTS: ONE (1) Cleaver BROOKS PACKAGE BOILER.
SCHEDULE: 24 Hrs/Day 7 Dys/Wk 270 Dys/Yr
QTRLY SCHEDULE: Q1: 38% Q2: 7% Q3: 0% Q4: 55%
ANNUAL TPUT: 65.5 MMCF of Natural Gas
AVG TPUT: .01011 E3 FT3/H
MAX TPUT: 200 E3 FT3/H

--EMISSION FACTORS--

<u>POLLUTANT</u>	<u>VALUE / UNIT</u>	<u>ORIGIN</u>
CADMIUM	.0011 LB / MMCF	DNR
CO	84 LB / MMCF	DNR
NOX	140 LB / MMCF	DNR

--EMISSIONS / YR--

<u>POLLUTANT</u>	<u>NR438 THRESH</u>	<u>UNCNTRLD</u>	<u>CNTRLD</u>	<u>OZONE/DY</u>
CO (c)	10000 LB	5,502.000 LB	5,502.000 LB	
NOX (c)	10000 LB	9,170.000 LB	9,170.000 LB	.000 LB
CADMIUM (c) (fs)	.49 LB	.072 LB	.072 LB	

--INCOMING STREAMS--

TPUT --> B20-01

--OUTGOING STREAMS--

B20-01 ---(100%)---> S10-01 ---(100%)---> OUT

B20, Process 02 **Generic Throughput Process**

PROCESS NAME: #2 OIL
SCC CODE: 10300501
PROCESS COMMENTS:
SCHEDULE: 8 Hrs/Day 7 Dys/Wk 30 Dys/Yr
QTRLY SCHEDULE: Q1: 0% Q2: 0% Q3: 0% Q4: 100%

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ANNUAL TPUT: 654 GAL of Fuel Oil - Distillate (aka Diesel)
AVG TPUT: 2.725 GAL/HR
MAX TPUT: 200 GAL/HR

--EMISSION FACTORS--

<u>POLLUTANT</u>	<u>VALUE / UNIT</u>	<u>ORIGIN</u>
CADMIUM	.000555 LB / E3 GAL	DNR
CO	5 LB / E3 GAL	DNR
NOX	24 LB / E3 GAL	DNR

--EMISSIONS / YR--

<u>POLLUTANT</u>	<u>NR438 THRESH</u>	<u>UNCNTRLD</u>	<u>CNTRLD</u>	<u>OZONE/DY</u>
CO (c)	10000 LB	3.270 LB	3.270 LB	
NOX (c)	10000 LB	15.696 LB	15.696 LB	.000 LB
CADMIUM (c) (fs)	.49 LB	.000 LB	.000 LB	

--INCOMING STREAMS--

TPUT --> B20-02

--OUTGOING STREAMS--

B20-02 ---(100%)---> S10-01 ---(100%)---> OUT

B21 Boiler/Furnace Boiler

DEVICE DESC: 150 mmBtu/hr natural gas/#2 fuel oil fired boiler EI: WATER TUBE BOILER

CONSTR DATE: 11/01/1969

DEVICE COMMENTS: EI: Plants boiler #2

MAX RATED CAPACITY: 150 MMBTU/HR

B21, Process 01 Generic Throughput Process

PROCESS NAME: NATURAL GAS
SCC CODE: 10300601

PROCESS COMMENTS: Boiler exhaust to S11

SCHEDULE: 8 Hrs/Day 7 Dys/Wk 200 Dys/Yr
QTRLY SCHEDULE: Q1: 70% Q2: 27% Q3: 2% Q4: 1%

ANNUAL TPUT: 201.27 MMCF of Natural Gas
AVG TPUT: .12579 E3 FT3/H
MAX TPUT: 150 E3 FT3/H

--EMISSION FACTORS--

<u>POLLUTANT</u>	<u>VALUE / UNIT</u>	<u>ORIGIN</u>
CADMIUM	.0011 LB / MMCF	DNR
CO	84 LB / MMCF	DNR
NOX	140 LB / MMCF	DNR

--EMISSIONS / YR--

<u>POLLUTANT</u>	<u>NR438 THRESH</u>	<u>UNCNTRLD</u>	<u>CNTRLD</u>	<u>OZONE/DY</u>
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CO (c)	10000 LB	16,906.680 LB	16,906.680 LB	
NOX (c)	10000 LB	28,177.800 LB	28,177.800 LB	6.193 LB
CADMIUM (c) (fs)	.49 LB	.221 LB	.221 LB	

--INCOMING STREAMS--

TPUT --> B21-01

--OUTGOING STREAMS--

B21-01 ---(100%)---> S11-01 ---(100%)---> OUT

B21, Process 02 **Generic Throughput Process**

PROCESS NAME: DISTILLATE OIL

SCC CODE: 10300501

PROCESS COMMENTS:

SCHEDULE: 8 Hrs/Day

7 Dys/Wk

30 Dys/Yr

QTRLY SCHEDULE: Q1: 99%

Q2: 0%

Q3: 0%

Q4: 1%

ANNUAL TPUT: 12699 GAL

of Fuel Oil - Distillate
(aka Diesel)

AVG TPUT: 52.9125 GAL/HR

MAX TPUT: 200 GAL/HR

--EMISSION FACTORS--

<u>POLLUTANT</u>	<u>VALUE / UNIT</u>	<u>ORIGIN</u>
CADMIUM	.000555 LB / E3 GAL	DNR
CO	5 LB / E3 GAL	DNR
NOX	24 LB / E3 GAL	EPA

--EMISSIONS / YR--

<u>POLLUTANT</u>	<u>NR438 THRESH</u>	<u>UNCNTRLD</u>	<u>CNTRLD</u>	<u>OZONE/DY</u>
CO (c)	10000 LB	63.495 LB	63.495 LB	
NOX (c)	10000 LB	304.776 LB	304.776 LB	.000 LB
CADMIUM (c) (fs)	.49 LB	.007 LB	.007 LB	

--INCOMING STREAMS--

TPUT --> B21-02

--OUTGOING STREAMS--

B21-02 ---(100%)---> S11-01 ---(100%)---> OUT

B22 **Boiler/Furnace** **Boiler**
DEVICE DESC: WATER TUBE BOILER
CONSTR DATE:
DEVICE COMMENTS: Plants boiler #3
MAX RATED CAPACITY: 150 MMBTU/HR

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B22, Process 01 **Generic Throughput Process**

PROCESS NAME: NATURAL GAS

SCC CODE: 10300601

PROCESS COMMENTS: Plants #3 boiler

SCHEDULE: 24 Hrs/Day

7 Dys/Wk

270 Dys/Yr

QTRLY SCHEDULE: Q1: 14%

Q2: 0%

Q3: 0%

Q4: 86%

ANNUAL TPUT: 105.91 MMCF

of Natural Gas

AVG TPUT: .01634 E3 FT3/H

MAX TPUT: 200 E3 FT3/H

--EMISSION FACTORS--

<u>POLLUTANT</u>	<u>VALUE / UNIT</u>	<u>ORIGIN</u>
CADMIUM	.0011 LB / MMCF	DNR
CO	84 LB / MMCF	DNR
NOX	140 LB / MMCF	DNR

--EMISSIONS / YR--

<u>POLLUTANT</u>	<u>NR438 THRESH</u>	<u>UNCNTRLD</u>	<u>CNTRLD</u>	<u>OZONE/DY</u>
CO (c)	10000 LB	8,896.440 LB	8,896.440 LB	
NOX (c)	10000 LB	14,827.400 LB	14,827.400 LB	.000 LB
CADMIUM (c) (fs)	.49 LB	.117 LB	.117 LB	

--INCOMING STREAMS--

TPUT --> B22-01

--OUTGOING STREAMS--

B22-01 ---(100%)---> S12-01 ---(100%)---> OUT

B22, Process 02 **Generic Throughput Process**

PROCESS NAME: DISTILLATE OIL

SCC CODE: 10300501

PROCESS COMMENTS:

SCHEDULE: 8 Hrs/Day

7 Dys/Wk

30 Dys/Yr

QTRLY SCHEDULE: Q1: 98%

Q2: 0%

Q3: 0%

Q4: 2%

ANNUAL TPUT: 6494 GAL

of Fuel Oil - Distillate
(aka Diesel)

AVG TPUT: 27.05833 GAL/HR

MAX TPUT: 200 GAL/HR

--EMISSION FACTORS--

<u>POLLUTANT</u>	<u>VALUE / UNIT</u>	<u>ORIGIN</u>
CADMIUM	.000555 LB / E3 GAL	DNR
CO	5 LB / E3 GAL	DNR
NOX	24 LB / E3 GAL	DNR

--EMISSIONS / YR--

<u>POLLUTANT</u>	<u>NR438 THRESH</u>	<u>UNCNTRLD</u>	<u>CNTRLD</u>	<u>OZONE/DY</u>
CO (c)	10000 LB	32.470 LB	32.470 LB	

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NOX (c)	10000 LB	155.856 LB	155.856 LB	.000 LB
CADMIUM (c) (fs)	.49 LB	.004 LB	.004 LB	

--INCOMING STREAMS--

TPUT --> B22-02

--OUTGOING STREAMS--

B22-02 ---(100%)---> S12-01 ---(100%)---> OUT

B23	Boiler/Furnace	Boiler
DEVICE DESC: INDUSTRIAL, WATERTUBE, GAS /OIL		
CONSTR DATE:		
DEVICE COMMENTS: Plants Boiler # 4. This boiler was formerly listed as device B21.		
MAX RATED CAPACITY: 77.5 MMBTU/HR		

B23, Process 01 **Generic Throughput Process**

PROCESS NAME: NATURAL GAS

SCC CODE: 10300602

PROCESS COMMENTS:

SCHEDULE: 24 Hrs/Day

7 Dys/Wk

365 Dys/Yr

QTRLY SCHEDULE: Q1: 3%

Q2: 35%

Q3: 53%

Q4: 9%

ANNUAL TPUT: 92.7 MMCF

of Natural Gas

AVG TPUT: .01058 E3 FT3/H

MAX TPUT: 100 E3 FT3/H

--EMISSION FACTORS--

<u>POLLUTANT</u>	<u>VALUE / UNIT</u>	<u>ORIGIN</u>
CADMIUM	.0011 LB / MMCF	EPA
CO	84 LB / MMCF	EPA
NOX	100 LB / MMCF	EPA

--EMISSIONS / YR--

<u>POLLUTANT</u>	<u>NR438 THRESH</u>	<u>UNCNTRLD</u>	<u>CNTRLD</u>	<u>OZONE/DY</u>
CO (c)	10000 LB	7,786.800 LB	7,786.800 LB	
NOX (c)	10000 LB	9,270.000 LB	9,270.000 LB	53.990 LB
CADMIUM (c) (fs)	.49 LB	.102 LB	.102 LB	

--INCOMING STREAMS--

TPUT --> B23-01

--OUTGOING STREAMS--

B23-01 ---(100%)---> S13-01 ---(100%)---> OUT

B23, Process 02 **Generic Throughput Process**

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PROCESS NAME: #2 FUEL OIL

SCC CODE: 10300502

PROCESS COMMENTS:

SCHEDULE: 8 Hrs/Day

7 Dys/Wk

30 Dys/Yr

QTRLY SCHEDULE: Q1: 0%

Q2: 0%

Q3: 0%

Q4: 100%

ANNUAL TPUT: 200 GAL

of Fuel Oil - Distillate
(aka Diesel)

AVG TPUT: .83333 GAL/HR

MAX TPUT: 100 GAL/HR

--EMISSION FACTORS--

<u>POLLUTANT</u>	<u>VALUE / UNIT</u>	<u>ORIGIN</u>
CO	5 LB / E3 GAL	EPA
NOX	20 LB / E3 GAL	DNR

--EMISSIONS / YR--

<u>POLLUTANT</u>	<u>NR438 THRESH</u>	<u>UNCNTRLD</u>	<u>CNTRLD</u>	<u>OZONE/DY</u>
CO (c)	10000 LB	1.000 LB	1.000 LB	
NOX (c)	10000 LB	4.000 LB	4.000 LB	.000 LB

--INCOMING STREAMS--

TPUT --> B23-02

--OUTGOING STREAMS--

B23-02 ---(100%)---> S13-01 ---(100%)---> OUT

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S10	Stack	Stack
	DEVICE DESC:	
	CONSTR DATE:	
	DEVICE COMMENTS:	
	STACK HEIGHT: 25.91 m	or 85.01 ft
	STACK DIAMETER: 1.52 m	or 4.99 ft
	STACK TEMP: 422 K	or 299.93 F
	STACK VELOCITY: 6.47 m/s	or 21.23 ft/s

S10, Process 01	Releasing/Discharging material to the atmosphere
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PROCESS NAME: Stack

PROCESS COMMENTS:

SCHEDULE: 8 Hrs/Day

7 Dys/Wk

200 Dys/Yr

QTRLY SCHEDULE: Q1: %

Q2: %

Q3: %

Q4: %

--INCOMING STREAMS--

B20-01 (100%) --> S10-01

B20-02 (100%) --> S10-01

--OUTGOING STREAMS--

S10-01 (100%) --> OUT

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S11	Stack	Stack
DEVICE DESC:		
CONSTR DATE:		
DEVICE COMMENTS:		
STACK HEIGHT: 25.91 m		or 85.01 ft
STACK DIAMETER: 1.52 m		or 4.99 ft
STACK TEMP: 422 K		or 299.93 F
STACK VELOCITY: 6.47 m/s		or 21.23 ft/s

S11, Process 01	Releasing/Discharging material to the atmosphere
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PROCESS NAME: B21

PROCESS COMMENTS:

SCHEDULE: 8 Hrs/Day

7 Dys/Wk

200 Dys/Yr

QTRLY SCHEDULE: Q1: %

Q2: %

Q3: %

Q4: %

--INCOMING STREAMS--

B21-01 (100%) --> S11-01

B21-02 (100%) --> S11-01

--OUTGOING STREAMS--

S11-01 (100%) --> OUT

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S12	Stack	Stack
DEVICE DESC:		
CONSTR DATE:		
DEVICE COMMENTS:		
STACK HEIGHT: 25.91 m		or 85.01 ft
STACK DIAMETER: 1.52 m		or 4.99 ft
STACK TEMP: 422 K		or 299.93 F
STACK VELOCITY: 6.47 m/s		or 21.23 ft/s

S12, Process 01	Releasing/Discharging material to the atmosphere
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PROCESS NAME: Stack

PROCESS COMMENTS:

SCHEDULE: 8 Hrs/Day

7 Dys/Wk

200 Dys/Yr

QTRLY SCHEDULE: Q1: %

Q2: %

Q3: %

Q4: %

--INCOMING STREAMS--

B22-01 (100%) --> S12-01

B22-02 (100%) --> S12-01

--OUTGOING STREAMS--

S12-01 (100%) --> OUT

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S13		Stack	Stack	
	DEVICE DESC:			
	CONSTR DATE:			
	DEVICE COMMENTS:			
	STACK HEIGHT: 25.91 m			or 85.01 ft
	STACK DIAMETER: 1.28 m			or 4.2 ft
	STACK TEMP: 422 K			or 299.93 F
	STACK VELOCITY: 6.6 m/s			or 21.65 ft/s

S13, Process 01	Releasing/Discharging material to the atmosphere
------------------------	---

PROCESS NAME: Stack

PROCESS COMMENTS:

SCHEDULE: 8 Hrs/Day

7 Dys/Wk

200 Dys/Yr

QTRLY SCHEDULE: Q1: %

Q2: %

Q3: %

Q4: %

--INCOMING STREAMS--

B23-01 (100%) --> S13-01

B23-02 (100%) --> S13-01

--OUTGOING STREAMS--

S13-01 (100%) --> OUT

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FACILITY EMISSIONS SUMMARY

-2018 SUMMARY-	--2018--	--2018--	--2018--	--2018--
<u>--POLLUTANT--</u>	<u>--NR438 THRESH--</u>	<u>--UNCNTRLD/YR--</u>	<u>--CNTRLD/YR--</u>	<u>--OZONE/DY--</u>
CO	10000 LB	39,192.15500 LB	39,192.15500 LB	
NOX	10000 LB	61,925.52800 LB	61,925.52800 LB	60.18303 LB
CADMIUM (fs)	.49 LB	.52293 LB	.52293 LB	

-2017 SUMMARY-	--2017--	--2017--	--2017--	--2017--
<u>--POLLUTANT--</u>	<u>--NR438 THRESH--</u>	<u>--UNCNTRLD/YR--</u>	<u>--CNTRLD/YR--</u>	<u>--OZONE/DY--</u>
CO	10000 LB	37,457.28000 LB	37,457.28000 LB	
NOX	10000 LB	57,747.20000 LB	57,747.20000 LB	61.73538 LB
CADMIUM(FS)	.49 LB	.49051 LB	.49051 LB	

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REPORT LEGEND

--EMISSIONS--

c = Calculated; r = Reported; m = Measured; t = Tank

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