Date Report Submitted: October 9, 1978

ENVIRONMENTAL PROTECTION AGENCY
AIR POLLUTANT EMISSIONS REPORT
SECTION I - GENERAL INFORMATION

FORM APPROVED
OMB NUMBER 158-R75

For Official Use Only:

Date Sent: _____

Date Returned: _____

UTM Grid Coordinates: _____

SIC No.: _____

Source ID: _____

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

Plant, institution, or establishment address: P.O. Box 504 (Street or Box Number) Joliet (City) Illinois (State) 60434 (Zip)

Person to contact regarding this report: W. O'Donohue Title: Plant Engineer Telephone: 815-729-5210

Mailing address: P.O. Box 504 (Street or Box Number) Joliet (City) Illinois (State) 60434 (Zip)

Approximate number of employees at plant, institution, or establishment location: ☐ Less than 100 ☒ 100 or more.

~~Elevation of plant, institution, or establishment in relationship to mean sea level: _____ feet above mean sea level, _____ feet below mean sea level.~~

Information is representative of calendar year: 1977-78.

Land area at plant location: 401 acres. Enclose a sketch of layout if there is more than one building.

Plant location: (give nearest cross streets, describe by landmarks or enclose a map, engineering drawing, or sketch)

Route 6 Plant - U.S. Route 6 Channahon Rd. 1 mile SE of Larkin Avenue, Joliet, Illinois

Building F - W. McDonough St., Joliet, Illinois

☐ Air pollutants of the type indicated in the instructions for the completion of this report, i.e., _____ are not emitted at this plant, institution or establishment. Therefore, no other Sections of the report need be completed.

_____ (Signed) _____ (Title)

Please return all sections of this report to: _____

Additional forms may be obtained from the above address.

NOTE: Please read reverse side of this page. Use additional sheets if necessary. Retain last copy.

Date Report Submitted: October 9, 1978

ENVIRONMENTAL PROTECTION AGENCY
AIR POLLUTANT EMISSIONS REPORT

FORM APPROVED
OMB NUMBER 158-R75

SECTION II - FUEL COMBUSTION FOR GENERATION OF HEAT, STEAM, AND POWER

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

Normal operating schedule for fuel use: 24 Hours per day 7 Days per week 52 Weeks per year 8736 Hours per year.

Dates of annually occurring shutdowns of operations: Route 6 heating plant - 7 - 10 days mid July each year. Additional operating information enclosed XX.

	Source[a,e] Code	Number of Combustion Sources[b,e] (Boilers)	Actual Heat Input 10^6BTU/hr.	Type of Unit[d,e]	Installation Date[e]	Percent Excess Air Used In Combustion (Design)[e]	Power Output Megawatts[e,f]
#1	1 02 006 02	1	100	Gas fired	1951 - modified to N.G. 9-72	20	NA
#2	1 02 002 09	1	100	Spreader stoker	1951		
#3	1 02 002 04	1	125	Spreader stoker	1953		
#4	1 02 006 01	1	125	Dual fuel - NG & spreader stoker	1968 modified to N.G. 1973		
J4187	1 02 006 02	1	37.11	Gas fired	1968		
J4188	1 02 006 02	1	37.11	Gas fired	1968		

a. List a separate code number to represent each source (e.g., II-a, II-b, II-c, etc.), then enter the same code number and the required data on the continuation of this Section on Page 3, and in Sections V and VI.

b. Multiple sources may be grouped if units are similar in size and type, burn the same fuel, or are vented to the same stack.

c. Nameplate data are sufficient (give rated or maximum capacity, whichever is greater).

d. Hand-fired, underfeed, overfeed, traveling-grate or spreader stoker; cyclone furnace; pulverized, wet or dry bottom with or without fly ash reinjection; rotary or gun type oil burner; etc.

e. List separately future equipment and expected date of installation.

f. Power generation only.

NOTE: Please read reverse side of this page. Use additional sheets if necessary. Retain last copy.

Date Report Submitted: October 9, 1978

ENVIRONMENTAL PROTECTION AGENCY
AIR POLLUTANT EMISSIONS REPORT

FORM APPROVED
OMB NUMBER 158-R76

SECTION II - FUEL COMBUSTION FOR GENERATION OF HEAT, STEAM, AND POWER (continued)

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

	Source Code[a]	Type of Fuel[b]	Annual Consumption[c]					Hourly Consumption[d]		Percent Used for Space Heat	Heat Content BTU/Quan.[e]	Percent Sulfur[f]	Percent Ash (Solid Fuel Only)[f]	Delivered Cost of Fuel $/Quantity	Future Use[g]
			Quantity[d]	Percent Distribution by Season											
				Spring March/May	Summer June/Aug.	Fall Sept./Nov.	Winter Dec./Febr.	Maximum	Average						
#1		Nat gas	354,649	28.5	24.3	14.9	32.2	100		50	1,036,000				
#2		Bitum Coal	9,267	43		11.6	45.4	4.37		50	21,600,000	2.33	10.1		
#3		Bitum Coal	9,762	30.8		15.3	53.9	5.48		50	21,600,000	2.33	10.1		
#4		Nat gas	329,074	12.9	8.2	38.3	40.6	125		50	1,036,000				
J4187		Nat gas	14,427	6.7	21.2	12.4	59.7	35.82	1.64	100	1,036,000				
J4188		Nat gas	48,674	17.4	29.1	10.4	43.1	35.82	5.55	100	1,036,000				

a. List code numbers corresponding to each source referred to on page 2, (e.g., II-a, II-b, II-c, etc.), then enter required data on this page, and for the same code number sources in Sections V and VI.
b. Coke, bituminous coal, anthracite coal, lignite; No. 1, 2, 4, 5 and 6 fuel oil; natural gas; LPG; refinery or coke oven gas; residual coke; wood; bark; sludge; etc. (Note: Indicate if two or more fuels are burned in the same boiler and provide all data pertinent to each fuel type.)
c. Fuel data are to be reported on an "as burned" basis.
d. Solid fuel, tons; liquid fuel, gallons; gaseous fuel, 1000 cubic feet.
~~e. If unknown, please give name and address of fuel supplier.~~
f. Sulfur and ash content for each fuel should be a weighted average.
g. Estimated percent increase or decrease in fuel usage (by fuel type) per year for the five years after the calendar year for which this report is completed. If increase is due to new equipment, please list this equipment separately on page 2 and the expected fuel use on this page.

NOTE: Please read reverse side of this page. Use additional sheets if necessary. Retain last copy.

Date Report Submitted: October 9, 1978

ENVIRONMENTAL PROTECTION AGENCY
AIR POLLUTANT EMISSIONS REPORT

FORM APPROVED
OMB NUMBER 158-R75

SECTION III - COMBUSTIBLE SOLID AND LIQUID WASTES DISPOSAL

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

Combustible solid and liquid wastes disposed of ☐ on site, ☐ off site, ☐ both on and off site. If off site, location of disposal site and/or name of hauler: Banner Disposal Co., Lockport Trucking Co. & Browning Ferris Industries (If disposal of solid and liquid wastes is partly or wholly on site, complete remainder of this page and Sections IV, V and VI; otherwise, skip to Section IV.)

Normal on-site combustion operating schedule: _____ Hours per day _____ Days per week _____ Weeks per year _____ Hours per year.

Seasonal and/or peak operation period: (Specify) _____

Dates of annually occurring shutdowns of operations: _____. Additional operating information enclosed ☐.

Source Code[a]	Waste Material			Method of Disposal[d]	Installation Date	Hourly Burning Rate, lbs.		Auxiliary Fuel Used[e]	Percent Excess Air Used in Combustion (Design)	Future Disposal[f]
	Type[b]	Amount Per Year[c]	Percent Combustible			Average	Maximum			

a. List a separate code number to represent each source (e.g., III-a, III-b, III-c, etc.), then enter required data on this page and for the same code number sources in Section V and VI.
b. Rubbish, garbage, mixed garbage and rubbish, waste paper, wood chips or sawdust, etc.
c. Tons, pounds, or gallons/year.
d. Open burning dump; incinerator, single chamber; etc. (See instructions for examples and use appropriate identification numbers; other non-listed methods, specify.)
e. Indicate whether auxiliary fuel is used in incinerators and pit burning, and the amount.
f. Estimated increase or decrease in combustible solid and liquid wastes disposal rate for the five years after the calendar year for which this report is completed. If increase is due to new equipment, please list this equipment separately.

NOTE: Please read reverse side of this page. Use additional sheets if necessary. Retain last copy.

Date Report Submitted: October 9, 1978

ENVIRONMENTAL PROTECTION AGENCY
AIR POLLUTANT EMISSIONS REPORT

FORM APPROVED
OMB NUMBER 158-R75

SECTION V - AIR CLEANING EQUIPMENT

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

	Source Code[a]	Type of Air Cleaning Equipment[b,c]	Installation Date[c]	Pollutant Removed[c,d]	Efficiency[e]		Inlet Gas Temperature, °F	Inlet Gas Flow Rate,[f] CFM	Exit Gas Pressure, PSI
					Design Percent	Operating Percent			
#1		Multiclone	1951	Particulate	93	Unknown	410	36,200	Unknown
#2		Multiclone and SO_2 Wet Scrubber	1951 and 1974	Particulate SO_2	Part 99 SO_2 75+	96.5 93.6	410	36,200	Unknown
#3		Multiclone and SO_2 Wet scrubber	1953 and 1974	Particulate SO_2	Part 99 SO_2 75+	96.5 93.6	410	45,300	Unknown
#4		Multiclone	1968	Particulate	94.6	Unknown	510	48,000	Unknown
J4187		None							
J4188		None							

a. List code numbers corresponding to each emissions source reported in Sections II, III, and IV.

b. Wet scrubber, electrostatic precipitator, fabric filter, etc. (See instructions for examples and use appropriate identification numbers; other non-listed type, specify.)

c. Please list future equipment separately.

d. The pollutants to be covered in this survey are specified in the accompanying instructions.

e. Give efficiency in terms of pollutant removed.

f. At actual flow conditions.

NOTE: Please read reverse side of this page. Use additional sheets if necessary. Retain last copy.

Date Report Submitted: October 9, 1978

ENVIRONMENTAL PROTECTION AGENCY
AIR POLLUTANT EMISSIONS REPORT

FORM APPROVED
OMB NUMBER 158-R75

SECTION VI - STACK AND POLLUTANT EMISSIONS DATA

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

	STACK DATA							ESTIMATE OF POLLUTANT EMISSIONS[e]			
	Source Code[a]	Height Above Grade ft.	Inside Diameter at Top, ft.	Exit Gas Velocity,[b] ft./sec.	Exit Gas Temperature,[b] °F	Exit Gas Flow Rate, CFM[c]		Pollutant[d]	Quantity		
									Tons Per Year	Lbs. Per Hour	
						Average	Maximum			Average	Maximum
#1		78	5	48.8	450		57,388	Particulate SO_2	.2 None		.12 None
#2		78	4.3	39	130		44,547	Particulate SO_2	21.1 26.02		19.9 24.54
#3		78	5	38.2	130		58,672	Particulate SO_2	22.2 27.4		24.97 30.77
#4		78	5	40.8	510		48,000	Particulate SO_2	.2 None		.15 None
J4187		75	5	12.1	510		14,300	Particulate SO_2	.12 None		.64 None
J4188		75	5	12.1	510		14,300	Particulate SO_2	.44 None		.64 None

a. List code numbers corresponding to each emissions source reported in Sections II, III, and IV.

b. Values should be representative of average flow conditions for hours of operation.

c. At actual flow conditions.

d. The pollutants to be covered in this survey are specified in the accompanying instructions.

e. Give stack test data if available (indicate stack sampling method used), otherwise, specify basis used. If unknown, please do not complete these columns.

NOTE: Please read reverse side of this page. Use additional sheets if necessary. Retain last copy.