June 9, 1995

M E M O R A N D U M

TO: Martin Bauer, Chief
Construction Permits Bureau

FROM: Jose S. Fabile
Air Quality Engineer
Construction Permits Bureau

SUBJECT: Permit to Construct Engineering Analysis
P-950066 J.R. Simplot, Pocatello
(Boiler Replacement)

Purpose

The purpose for this memorandum is to satisfy the requirements of IDAPA 16.01.01.200 (Rules for the Control of Air Pollution in Idaho) for issuing Permits to Construct.

Project Description

The J.R. Simplot facility at the Don Siding Complex has submitted a Permit to Construct (PTC) application for the construction/installation of a Low NO_x boiler to replace an existing boiler which was damaged in June 1994.

The following items were investigated during the processing of the permit application:

A. Area Classification

The J.R. Simplot's Don Siding facility is located in Pocatello. The site is classified as nonattainment for PM - 10 and attainment or unclassified for all other criteria pollutants.

B. Emission Estimates

Projected emissions, as submitted by applicant, were estimated based on manufacturer's emission rates, AP-42 Emission Factors, historical data, and a proposed operating schedule of 24 hours per day, 7 days a week, and 52 weeks per year. The proposed boiler will burn natural gas fuel. Copies of the applicant's emission calculations, which were reviewed by Jose S. Fabile, are incorporated into this PTC analysis as Attachment A.

C. Emissions summary

Emissions summary are tabulated in Tables C-1, C-2, and C-3.

D. Stack Parameters

The Babcock and Wilcox Boiler shall have the following exhaust stack parameters:

Stack Height	37	ft (minimum)
Stack Exit Diameter	5	ft
Stack Exit Velocity	977	fpm (at design capacity)
Stack Exit Temperature	295	+/- 50 F (at design capacity)

E. Facility Classification

Major Facility

The J.R. Simplot, Don Sidings facility is a major facility as defined in IDAPA 16.01.01.006.54 and it is not a designated facility as defined in IDAPA 16.01.01.006.25, (Rules for the Control of Air Pollution in Idaho).

PSD Applicability

The facility is considered a "major stationary source" as it emits, or has the potential to emit, more than 250 tons of particulates per year.

The construction/installation of the B & W low NO_x boiler, and the corresponding phase-out of the Keeler boiler will result in a negative net emission of PM-10. Therefore, IDAPA 16.01.01.202.01.b, (Rules for the Control of Air Poillution in Idaho), is not applicable to this project.

The construction/installation of the B & W low NO_x boiler and the corresponding phase out of the Keeler boiler will result in net emissions (based on potential to emit) which are either negative or below the significant emission values as defined in IDAPA 16.01.01.006.87, (Rules for the Control of Air Pollution in Idaho).

When the net emissions are based on the projected potential to emit of the B & W boiler and the actual emissions of the Keeler boiler,(based on a two-year operating data), the net emissions are below the significant emission values as defined in IDAPA 16.01.01.006.87.

Therefore, the project does not constitute a major modification, as defined in IDAPA 16.01.01.006.55, (Rules for the Control of Air Pollution in Idaho), and does not trigger a PSD review.

NSPS

The B & W boiler meets the applicability requirements of CFR Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. However, all standards in this subpart do not apply to natural gas fired units.

SIC Classification

The SIC classification code for this facility is 2874.

F. Regulatory Review

The J.R. Simplot, Don Siding facility proposes to install a new 63.807 MMBtu boiler and decommission an existing boiler unit of 94.5 MMBtu/hr. Since the proposed project results in a positive net emission of a criteria pollutant, it constitutes a modification as per IDAPA 16.01.01.57, (Rules for the Control of Air Pollution in Idaho). The removal of the existing Keeler boiler provide offsets of emissions to make the modification a minor modification. Therefore, the Babcock and Wilcox replacement boiler is exempt from complying from BACT analysis, PSD increments and Effects on Class I areas considerations.

The facility is subject to the following permitting requirements:

IDAPA 16.01.01.201	Permit to Construct;
IDAPA 16.01.01.202	Application Procedures;
IDAPA 16.01.01.205.01	Permit Requirements;
IDAPA 16.01.01.206	Optional Offsets for Permits to Construct:
IDAPA 16.01.01.209	Procedures for Issuing Permits;
IDAPA 16.01.01.211	Conditions for Permits;
IDAPA 16.01.01.212	Obligation to Comply;

IDAPA 16.01.01.625	Visible Emissions; and,
40 CFR 60.Subpart Dc	New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units.

G. Modeling

Modeling for impact analysis of the various emissions was performed by Chris Johnson, DEQ Meteorologist, using the EPA ISC2 Model. Co-contributing sources were not considered in the analysis, since the maximum increase in impacts to ambient air, as a result of the modification is insignificant. The analysis, comments and recommendations made by Chris Johnson in a Technical Memorandum are incorporated into this Permit to Construct Analysis as Attachment B.

H. Fees

Fees apply to this facility in accordance with IDAPA 16.01.01.526 because the facility is a major facility. The facility has paid registration fees for 4,745.67 tons per year of pollutants required to be registered in accordance with IDAPA 16.01.01.530 as of August 29, 1994. This boiler replacement will result in a negative net increase in emissions and therefore fees do not apply to the project.

Summary of Events

On March 29, 1995, DEQ received a Permit to Construct application from the J.R. Simplot Co., Don Siding facility, for the construction/installation of a new boiler to replace a damaged existing boiler. The application was declared complete on May 16, 1995.

Recommendation

Based on the application, and review of federal and state rules and regulations, I recommend that PTC # 077-00006 be issued to the J.R. Simplot Company's Don Siding facility. No provisions for a public comment period is recommended as there are no PSD requirements, and there has not been a request for public comment from any party.

JF/dcf/SIMPLOT/JRS-DS.TM

cc: P Rayne/AFS SEIRO
R Wilkosz, TSB COF

P – 950066

J. R. SIMPLOT CO. DON SIDING COMPLEX

TABLE C1

BOILER REPLACEMENT

BOILER TO BE REPLACED

KEELER BOILER

STEAM RATE	6.00E+04	LB/HR
BURNER CAPACITY	9.45E+01	MMBTU/HR
FUEL RATE	9.45E+04	SCFH NATURAL GAS

ACTUAL GAS USAGE – JUNE 1992 TO MAY 1994 (2 YEARS)

OVERALL AVERAGE FOR 2 YEARS

		ANNUAL AVE
FUEL	2.77E+08	1.39E+08
HRS OPN	5.30E+03	2.65E+03
SCF/HR	5.23E+04	5.23E+04

ACTUAL EMISSIONS BASED ON TWO YEAR OPERATING RECORD

POLLUTANT	E.F.	ACTUAL	EMISSION	SIG. EM	% OF SIG.
	#/SCF*E6	LB/HR	TONS/YR	TONS/YR	
PM	1.00E+01	5.23E-01	6.95E-01	2.50E+01	2.78E+00
PM-10	5.00E+00	2.62E-01	3.48E-01	1.50E+01	2.32E+00
SOx	6.00E-01	3.14E-02	4.17E-02	4.00E+01	1.04E-01
NOx	1.75E+02	9.15E+00	1.22E+01	4.00E+01	3.04E+01
CO	1.70E+01	8.89E-01	1.18E+00	1.00E+02	1.18E+00
VOC	3.00E+00	1.57E-01	2.09E-01	4.00E+01	5.21E-01
EMISSIONS BASED ON DESIGN FUEL RATE AND 8760 HRS/YR					
PM	1.00E+01	9.45E-01	4.14E+00	2.50E+01	1.66E+01
PM-10	5.00E+00	4.73E-01	2.07E+00	1.50E+01	1.38E+01
SOx	6.00E-01	5.67E-02	2.48E-01	4.00E+01	6.21E-01
NOx	1.75E+02	1.65E+01	7.24E+01	4.00E+01	1.81E+02
CO	1.70E+01	1.61E+00	7.04E+00	1.00E+02	7.04E+00
VOC	3.00E+00	2.84E-01	1.24E+00	4.00E+01	3.10E+00

NEW BOILER

BABCOCK AND WILCOX MODEL FM 10-79

STEAM RATE	5.80E+04	LB/HR	
BURNER CAPACITY	6.38E+04	SCFH	NAT. GAS

EMISSIONS BASED ON AP-42 AND MNUFACTURER'S GUARRANTEED EMISSIONS FOR NOx AND CO

POLLUTANT	E.F.	LB/HR	TON/YR	SIG(TPY)	% OF SIG
PM	1.00E+01	6.38E-01	2.79E+00	2.50E+01	1.12E+01
PM-10	5.00E+00	3.19E-01	1.40E+00	1.50E+01	9.31E+00
SOx	6.00E-01	3.83E-02	1.68E-01	4.00E+01	4.19E-01
NOx	4.50E+01	2.87E+00	1.26E+01	4.00E+01	3.14E+01
CO	1.83E+02	1.17E+01	5.11E+01	1.00E+02	5.11E+01
VOC	3.00E+00	1.91E-01	8.38E-01	4.00E+01	2.10E+00

NET EM. BASED ON DESIGN CAP OF B & W AND ACTUAL OF KEELER

POLLUTANT	LB/HR	TONS/YR	SIG(TPY)	% OF SIG
PM	1.15E-01	2.10E+00	2.50E+01	8.40E+00
PM-10	5.75E-02	1.05E+00	1.50E+01	7.00E+00
SOx	6.90E-03	1.26E-01	4.00E+01	3.15E-01
NOx	-6.28E+00	4.12E-01	4.00E+01	1.03E+00
CO	1.08E+01	5.00E+01	1.00E+02	5.00E+01
VOC	3.45E-02	6.30E-01	4.00E+01	1.57E+00
TOTAL	4.72E+00	5.43E+01		

P - 950066
J. R. SIMPLOT CO. DON SIDING COMPLEX
TABLE C-2
BOILER REPLACEMENT

BOILER TO BE REPLACED
KEELER BOILER

STEAM RATE	6.00E+04	LB/HR
BURNER CAPACITY	9.45E+01	MMBTU/HR
FUEL RATE	9.45E+04	SCFH NATURAL GAS

ACTUAL GAS USAGE - JUNE 1992 TO MAY 1994 (2 YEARS)
OVERALL AVERAGE FOR 2 YEARS

		ANNUAL AVE
FUEL	2.77E+08	1.39E+08
HRS OPN	5.30E+03	2.65E+03
SCF/HR	5.23E+04	5.23E+04

ACTUAL EMISSIONS BASED ON TWO YEAR OPERATING RECORD

POLLUTANT	E.F.	ACTUAL	EMISSION	SIG. EM	% OF SIG
	#/SCF*E6	LB/HR	TONS/YR	TONS/YR	
PM	1.00E+01	5.23E-01	6.95E-01	2.50E+01	2.78E+00
PM-10	5.00E+00	2.62E-01	3.48E-01	1.50E+01	2.32E+00
SOx	6.00E-01	3.14E-02	4.17E-02	4.00E+01	1.04E-01
NOx	1.75E+02	9.15E+00	1.22E+01	4.00E+01	3.04E+01
CO	1.70E+01	8.89E-01	1.18E+00	1.00E+02	1.18E+00
VOC	3.00E+00	1.57E-01	2.09E-01	4.00E+01	5.21E-01
EMISSIONS BASED ON DESIGN FUEL RATE AND 8760 HRS/YR					
PM	1.00E+01	9.45E-01	4.14E+00	2.50E+01	1.66E+01
PM-10	5.00E+00	4.73E-01	2.07E+00	1.50E+01	1.38E+01
SOx	6.00E-01	5.67E-02	2.48E-01	4.00E+01	6.21E-01
NOx	1.75E+02	1.65E+01	7.24E+01	4.00E+01	1.81E+02
CO	1.70E+01	1.61E+00	7.04E+00	1.00E+02	7.04E+00
VOC	3.00E+00	2.84E-01	1.24E+00	4.00E+01	3.10E+00

NEW BOILER
BABCOCK AND WILCOX MODEL FM 10-79

STEAM RATE	5.80E+04	LB/HR	
BURNER CAPACITY	6.38E+04	SCFH	NAT. GAS

EMISSIONS BASED ON AP-42 AND MNUFACTURER'S GUARRANTEED EMISSIONS FOR NOx AND CO

POLLUTANT	E.F.	LB/HR	TON/YR	SIG(TPY)	% OF SIG
PM	1.00E+01	6.38E-01	2.79E+00	2.50E+01	1.12E+01
PM-10	5.00E+00	3.19E-01	1.40E+00	1.50E+01	9.31E+00
SOx	6.00E-01	3.83E-02	1.68E-01	4.00E+01	4.19E-01
NOx	4.50E+01	2.87E+00	1.26E+01	4.00E+01	3.14E+01
CO	1.83E+02	1.17E+01	5.11E+01	1.00E+02	5.11E+01
VOC	3.00E+00	1.91E-01	8.38E-01	4.00E+01	2.10E+00

NET EMISSIONS BASED ON MAXIMUM DESIGN CAPACITY

POLLUTANT	LB/HR	TONS/YR	SIG(TPY)	% OF SIG
PM	-3.07E-01	-1.34E+00	2.50E+01	-5.38E+00
PM-10	-1.53E-01	-6.72E-01	1.50E+01	-4.48E+00
SOx	-1.84E-02	-8.07E-02	4.00E+01	-2.02E-01
NOx	-1.37E+01	-5.99E+01	4.00E+01	-1.50E+02
CO	1.01E+01	4.41E+01	1.00E+02	4.41E+01
VOC	-9.21E-02	-4.03E-01	4.00E+01	-1.01E+00
TOTAL	-4.17E+00	-1.83E+01		

P - 950066
J. R. SIMPLOT CO. DON SIDING COMPLEX
TABLE C-3
BOILER REPLACEMENT

BOILER TO BE REPLACED
KEELER BOILER

STEAM RATE	6.00E+04	LB/HR
BURNER CAPACITY	9.45E+01	MMBTU/HR

ACTUAL GAS USAGE - JUNE 1992 TO MAY 1994 (2 YEARS)

MONTH	OPERATING HOURS	FUEL USED SCF	SCF/HR
JUNE 92	4.27E+02	2.37E+07	5.55E+04
JULY 92	NO DATA	4.00E+06	-
AUGUST 92	3.75E+01	1.90E+06	5.07E+04
SEPT. 92	1.79E+02	8.70E+06	4.86E+04
OCT. 92	2.51E+02	8.60E+06	3.43E+04
NOV. 92	1.45E+02	7.40E+06	5.10E+04
DEC. 92	1.94E+02	8.90E+06	4.59E+04
JAN. 93	2.40E+02	1.50E+07	6.25E+04
FEB. 93	2.50E+02	1.35E+07	5.40E+04
MAR. 93	5.78E+02	2.72E+07	4.71E+04
APRIL 93	8.70E+01	4.30E+06	4.94E+04
MAY 93	1.00E+02	3.70E+06	3.70E+04
ANNUAL TOTAL	2.49E+03	1.27E+08	
AVE. FUEL USE			4.94E+04
JUNE 93	1.52E+02	1.79E+07	1.18E+05
JULY 93	2.65E+02	2.96E+07	1.12E+05
AUGUST 93	3.13E+01	1.90E+06	6.08E+04
SEPT. 93	1.60E+02	6.20E+06	3.88E+04
OCT. 93	2.36E+02	1.19E+07	5.04E+04
NOV. 93	2.02E+02	1.05E+07	5.20E+04
DEC. 93	2.24E+02	1.05E+07	4.69E+04
JAN. 94	1.90E+02	8.80E+06	4.63E+04
FEB. 94	1.20E+02	5.00E+06	4.17E+04
MAR. 94	3.94E+02	1.93E+07	4.90E+04
APRIL 94	3.73E+02	1.42E+07	3.81E+04
MAY 94	3.85E+02	1.46E+07	3.79E+04
ANNUAL TOTAL	2.73E+03	1.50E+08	
AVE. FUEL USE			5.50E+04

OVERALL AVERAGE FOR 2 YEARS

		ANNUAL AVE
FUEL	2.73E+08	1.37E+08
HRS OPN	5.22E+03	2.61E+03
SCF/HR	5.23E+04	5.24E+04

ATTACHMENT A

BLE 1.

BABCOCK & WILCOX BOILER (REPLACEMENT FOR KEELER BOILER)
ESTIMATED EMISSIONS OF REGULATED AIR POLLUTANTS

AP-42 emission factors are based on (lbs air pollutant / 10^6 ft^3 natural gas)
small industrial boilers 10 MM to 100 MM Btu/hr

Designed natural gas throughput = 6.38E+04 (ft^3 /hr) natural gas

Air pollutant	emission factor lb/(10^6 ft^3 ng)	maximum potential emissions lb/hr	maximum potential emissions ton/yr
PM[a]	10	0.64	2.79
PM_{10}[d]	5	0.32	1.40
SO_2[a]	0.6	0.04	0.17
NO_x[e]	30 ppm	2.88	12.63
CO[e]	200 ppm	11.70	51.25
TOC (VOC)[a,c]	3	0.19	0.84

a. AP-42 emission factors used in JRS 01-26-87 plant expansion permit to construct application.
c. TOC is Trace Organic Carbon, VOC is Volatile Organic Carbon. Assumed TOC = VOC.
d. Idaho Division of Environmental Quality SIP group source of 1987 emission factor for PM_{10}.
e. Manufacturer guaranteed emissions based.

NATIONWIDE BOILER INC. EMISSION

Babcock & Wilcox Boiler FM 10-79

MANUFACTURER GUARANTEED EMISSIONS OF NO_x AND CO

$Q_s = V_sA$

Q_s = stack flow ft^3/hr (at 295 deg. F stack gas exit temperature, 14.696 psi)
V_s = stack gas exit velocity = 1526 ft/min
A = area of stack = 12.57 ft^2

Q_s = 1150909

$Q_{stp} = Q_sT_2/T_1$

T_1 = 754.67 deg. R
T_2 = 491.67 deg. R

Q_{stp} = 749821.1

m_x = mass flow rate of x in lb/hr = (Q_{stp})(lb·mole X / 359 ft^3)(ppm X / 10^6)(M_x)

M_x = molecular weight of X (lb X / lb·mole X)

M_{NOx} = 46.01
NO_X ppm 30

M_{CO} = 28.01
CO ppm = 200

m_{NOx} = 2.88 lb/hr 12.63 ton/yr

m_{CO} = 11.70 lb/hr 51.25 ton/yr

Note: if CO concentration was 50 ppm

m_{CO} = 2.93 lb/hr 12.81 ton/yr

Note: Particulate Matter is listed as 0 ppm, however, this is not a guaranteed maximum emission.

TABLE 2.

KEELER BOILER
ESTIMATED EMISSIONS OF REGULATED AIR POLLUTANTS

AP-42 emission factors are based on (lbs X / 10^6 ft^3 natural gas)
small industrial boilers 10 MM to 100 MM Btu/hr

Designed natural gas throughput = 9.45E+04 (ft^3 /hr) natural gas

Air pollutant	emission factor lb/(10^6 scf ng)	maximum potential emissions lb/hr	maximum potential emissions ton/yr	actual emissions [e] ton/yr (2 year average) 138.7 x 10^6 scf ng
PM[a]	10	0.95	4.14	0.69
PM_{10}[c]	5	0.47	2.07	0.35
SO_2[a]	0.6	0.06	0.25	0.04
NO_x [a]	175	16.54	72.43	12.13
CO [a]	17	1.61	7.04	1.18
TOC (VOC) [a,c]	3	0.28	1.24	0.21

a. AP-42 emission factors used in JRS 01-26-87 plant expansion permit to construct application.
c. TOC is Trace Organic Carbon, VOC is Volatile Organic Carbon. Assumed TOC = VOC.
d. Idaho Division of Environmental Quality SIP group source of 1987 emission factor for PM_{10}.
e. AP-42 emission factors and DEQ PM_{10} applied to Keeler boiler natural gas usage June 1992 to May 1994

TABLE 3.

ESTIMATED NET EMISSIONS CHANGE OF REGULATED AIR POLLUTANTS
(based on potential emissions for 8760 hours of operation for both old and raplacement boiler)

AP-42 emission factors are based on (lbs X / 10^6 ft^3 natural gas)
small industrial boilers 10 MM to 100 MM Btu/hr

Net change natural gas throughput (ngt) = (Babcock & Wilcox ngt) - (Keeler ngt)
= -3.07E+04 (ft^3 /hr) natural gas

Air pollutant	emission factor[a] lb/(10^6 ft^3 ng)	potential net emissions change	
		lb/hr	ton/yr
PM[a]	10	-0.31	-1.34
PM_{10}[d]	5	-0.15	-0.67
SO_2[a]	0.6	-0.02	-0.08
NO_X[e]	30 ppm	-13.65	-59.81
CO[e]	200 ppm	10.09	44.21
TOC (VOC)[a,c]	3	-0.09	-0.40

a. AP-42 emission factors used in JRS 01-26-87 plant expansion permit to construct application.
c. TOC is Trace Organic Carbon, VOC is Volatile Organic Carbon. Assumed TOC = VOC.
d. Idaho Division of Environmental Quality SIP group source of 1987 emission factor for PM_{10}.
e. Nationwide Boiler Corporation emission guarantee based for BW boiler and AP-42/DEQ (1987) emission factor based for Keeler boiler.

Note: In discussions with the boiler manufacturer, CO emissions are typically around 50 ppm, much less than the 200 ppm manufacturer guarantee. Using 50 ppm CO for emissions calculations would result in the following net emissions reduction for CO of. 1.32 lb/hr, 5.78 ton/yr.

ATTACHMENT B

May 10, 1995

M E M O R A N D U M

TO: Robert Wilkosz, Chief, Technical Services Bureau (TSB), Permits and Enforcement (P&E)

FROM: Chris Johnson, Air Quality Meteorologist, TSB, P&E

THRU: Avijit Ray, Environmental Sciences Manager, TSB, P&E

SUBJECT: Modeling/Impact Assessment of Simplot Keeler Boiler Modification (Pocatello)

1. SUMMARY

The applicant operates a major facility in Pocatello. The proposal is a direct replacement of the existing Keeler boiler with another boiler. The change will result in a net decrease in emissions for all criteria pollutants, with the exception of a slight increase in CO. The increase in impacts as a result of this modification is predicted to be insignificant.

2. DISCUSSION

2.1 Project Description

The applicant proposes to replace the Keeler boiler, in the north central portion of its major facility in west Pocatello, with another boiler in the same location. Emissions will decrease for all criteria pollutants except for CO. The new boiler will have a lower stack, lower exit velocity and temperature. The boiler stacks are just west of the main Simplot process building, so that building downwash had to be considered.

2.2 Applicable Air Quality Impact Limits

The area, in Bannock County, is considered nonattainment for PM-10. It is considered attainment or unclassified for all other criteria pollutants. The significant concentration levels in IDAPA rules were used as screening impact limits.

2.3 Background Concentrations

This was not necessary, since the maximum increase in impacts as a result of the modification was insignificant.

2.4 Co-contributing Sources

This was not necessary, since the maximum increase in impacts as a result of the modification was insignificant.

2.5 Modeling Impact Assessment

The Industrial Source Complex model, ISC2, was used to estimate potential impacts. One year of Pocatello meteorological data, from 1983, was used. Actual emission rates for the new and old boilers were used. Predicted maximum increases in impact occurred north of the source, at the nearby ambient air location. Building downwash was a factor since there are buildings higher than the release height in the immediate vicinity.

The chart below compares predicted pollutant concentrations with allowable limits.

POLLUTANT	Emiss. (g/s)	Predicted conc. (ug/m3)	Ave. Per.	Allowable conc. (ug/m3)	Impact limit %
Change in impacts as a result of the modification					
PM-10	-0.04	1.2	24 hr	5.	24.0%
CO	1.28	121.1	8 hr	500.	24.2%
NOx	-1.72	0.	ann	1.	0.0%
SO2	-0.002	0.07	24 hr	5.	1.4%

* **Allowable impacts for the modification are based on significance levels.**

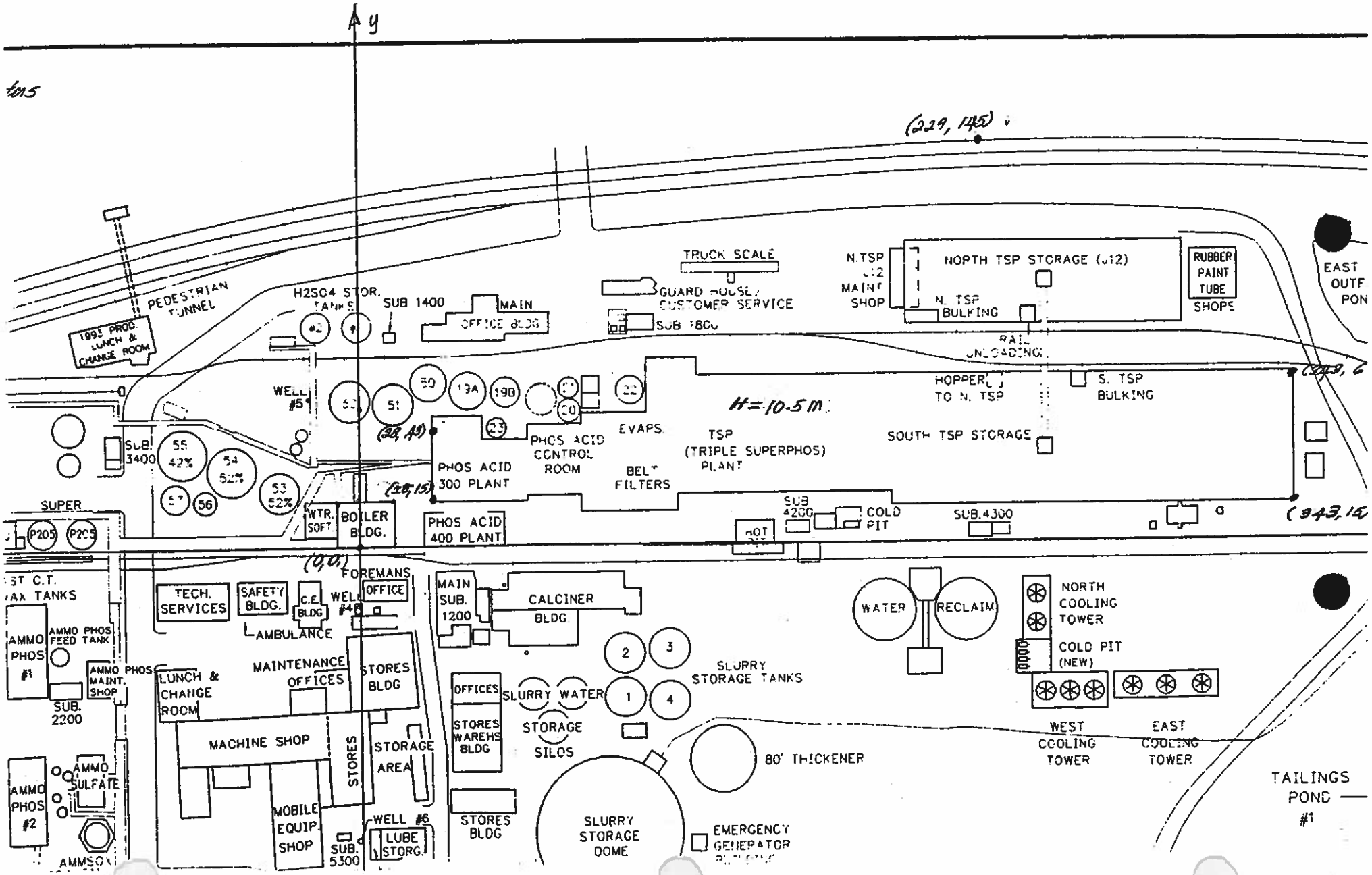
3. MODELING RESULTS

See attachments. Electronic copies saved on fileserver as \ISC2\SIMPBOI.OUT and \ISC2\SIMPBOI2.OUT

CJ/ve simpboi.tec

Attachments

cc: J. Fabile
K. Viswanathan
COF (w/o attachments)



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(229, 145)
PEDESTRIAN TUNNEL
1993 PROD. LUNCH & CHANGE ROOM
H2SO4 STOR. TANKS
SUB 1400
MAIN OFFICE BLDG
TRUCK SCALE
GUARD HOUSE/ CUSTOMER SERVICE
SUB 1800
N.TSP MAINT SHOP
NORTH TSP STORAGE (J12)
N. TSP BULKING
RAIL UNLOADING
RUBBER PAINT TUBE SHOPS
EAST OUTF PON
WELL #5
50
19A
19B
51
22
20
23
H=10.5m
HOPPER TO N. TSP
S. TSP BULKING
(343, 6
(28, 49)
PHOS ACID CONTROL ROOM
EVAPS.
TSP (TRIPLE SUPERPHOS) PLANT
SOUTH TSP STORAGE
SUB 3400
55 42%
54 52%
53 52%
57
56
PHOS ACID 300 PLANT
(28, 15)
BELT FILTERS
SUPER
P205
P205
WTR. SOFT
BOILER BLDG.
PHOS ACID 400 PLANT
SUB 4200
COLD PIT
SUB.4300
(343, 15)
(0,0)
FOREMANS OFFICE
TECH. SERVICES
SAFETY BLDG.
C.E. BLDG
WELL #4
AMBULANCE
MAIN SUB. 1200
CALCINER BLDG
WATER
RECLAIM
NORTH COOLING TOWER
COLD PIT (NEW)
AMMO PHOS #1
AMMO PHOS FEED TANK
AMMO PHOS MAINT. SHOP
SUB. 2200
LUNCH & CHANGE ROOM
MAINTENANCE OFFICES
STORES BLDG
OFFICES
STORES WAREHS BLDG
SLURRY WATER STORAGE SILOS
2
3
1
4
SLURRY STORAGE TANKS
WEST COOLING TOWER
EAST COOLING TOWER
MACHINE SHOP
STORES
STORAGE AREA
80' THICKENER
AMMO PHOS #2
AMMO SULFATE
MOBILE EQUIP. SHOP
WELL #6
SUB. 5300
LUBE STORG.
STORES BLDG
SLURRY STORAGE DOME
EMERGENCY GENERATOR
TAILINGS POND #1

P – 950066
J. R. SIMPLOT CO. DON SIDING COMPLEX

BOILER REPLACEMENT

BOILER TO BE REPLACED
KEELER BOILER

STEAM RATE	6.00E+04	LB/HR
BURNER CAPACITY	9.45E+01	MMBTU/HR
FUEL RATE	9.45E+04	SCFH NATURAL GAS

ACTUAL GAS USAGE – JUNE 1992 TO MAY 1994 (2 YEARS)
OVERALL AVERAGE FOR 2 YEARS

		ANNUAL AVE
FUEL	2.77E+08	1.39E+08
HRS OPN	5.30E+03	2.65E+03
SCF/HR	5.23E+04	5.23E+04

NEW BOILER
BABCOCK AND WILCOX MODEL FM 10–79

STEAM RATE	5.80E+04	LB/HR	
BURNER CAPACITY	6.38E+04	SCFH	NAT. GAS

NET EMISSIONS BASED ON MAXIMUM DESIGN CAPACITY

POLLUTANT	KEELER BO.(LB/HR)	B & W BO.(LB/HR)	NET EM. LB/HR	NET EM. g/sec
PM	9.45E–01	6.38E–01	–3.07E–01	–3.87E–02
PM–10	4.73E–01	3.19E–01	–1.54E–01	–1.94E–02
SOx	5.67E–02	3.83E–02	–1.84E–02	–2.32E–03
NOx	1.65E+01	2.87E+00	–1.36E+01	–1.72E+00
CO	1.61E+00	1.17E+01	1.01E+01	1.27E+00
VOC	2.84E–01	1.91E–01	–9.30E–02	–1.17E–02

converted to g/sec for model input

STACK PARAMETERS	BEFORE MOD.	AFTER MOD.
HEIGHT (M)	1.37E+01	1.13E+01
DIAMETER (M)	1.22E+00	1.52E+00
ACFM (CU.M/S)	1.75E+01	9.06E+00
GAS VEL(M/S)	7.75E+00	4.99E+00
GAS TEMP (C)	2.32E+02	1.46E+02

```
CO STARTING
CO TITLEONE Simplot boiler change  : 1 PM-10, 2 CO, 3 NOx, 4 SO2
CO MODELOPT CONC   URBAN         NOSTD         NOCALM
CO AVERTIME  8 24 PERIOD
CO POLLUTID OTHER
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO ERRORFIL ERRORS.OUT
CO FINISHED


SO STARTING

** Source Location Cards:
**          SRCID SRCTYP        XS            YS            ZS

SO LOCATION     1 POINT           0.0           0.0         .0000
SO LOCATION     2 POINT           0.0           0.0         .0000
SO LOCATION     3 POINT           0.0           0.0         .0000
SO LOCATION     4 POINT           0.0           0.0         .0000
SO LOCATION    11 POINT           0.0           0.0         .0000
SO LOCATION    12 POINT           0.0           0.0         .0000
SO LOCATION    13 POINT           0.0           0.0         .0000
SO LOCATION    14 POINT           0.0           0.0         .0000

** Source Parameter Cards:
** POINT:   SRCID       QS            HS          TS          VS          DS
** VOLUME:  SRCID       QS            HS        SYINIT      SZINIT
** AREA:    SRCID       QS            HS         XINIT

SO SRCPARAM     1    0.0810000        11.300   419.0000     4.9900     1.5200
SO SRCPARAM     2    1.4800000        11.300   419.0000     4.9900     1.5200
SO SRCPARAM     3    0.3620000        11.300   419.0000     4.9900     1.5200
SO SRCPARAM     4    0.0050000        11.300   419.0000     4.9900     1.5200
SO SRCPARAM    11   -0.1190000        13.700   505.0000     7.7500     1.2200
SO SRCPARAM    12   -0.2030000        13.700   505.0000     7.7500     1.2200
SO SRCPARAM    13   -2.0800000        13.700   505.0000     7.7500     1.2200
SO SRCPARAM    14   -0.0070000        13.700   505.0000     7.7500     1.2200

SO BUILDHGT 1          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 1          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 1          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 1          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 1          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 1          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDWID 1          20.97     22.30     22.95     22.91     22.17     20.76
SO BUILDWID 1          18.71     16.10     13.00     16.10     18.71     20.76
SO BUILDWID 1          22.17     22.91     22.95     22.30     20.97     19.00
SO BUILDWID 1          20.97     22.30    286.80    259.30    223.93    181.75
SO BUILDWID 1         134.05     82.27     13.00     16.10     18.71     20.76
SO BUILDWID 1          22.17     22.91     22.95     22.30     20.97     19.00
SO BUILDHGT 2          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 2          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 2          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 2          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 2          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDHGT 2          10.50     10.50     10.50     10.50     10.50     10.50
SO BUILDWID 2          20.97     22.30     22.95     22.91     22.17     20.76
SO BUILDWID 2          18.71     16.10     13.00     16.10     18.71     20.76
SO BUILDWID 2          22.17     22.91     22.95     22.30     20.97     19.00
SO BUILDWID 2          20.97     22.30    286.80    259.30    223.93    181.75
SO BUILDWID 2         134.05     82.27     13.00     16.10     18.71     20.76
SO BUILDWID 2          22.17     22.91     22.95     22.30     20.97     19.00
SO BUILDHGT 3          10.50     10.50     10.50     10.50     10.50     10.50
```

SO BUILDHGT 3	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 3	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 3	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 3	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 3	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDWID 3	20.97	22.30	22.95	22.91	22.17	20.76
SO BUILDWID 3	18.71	16.10	13.00	16.10	18.71	20.76
SO BUILDWID 3	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDWID 3	20.97	22.30	286.80	259.30	223.93	181.75
SO BUILDWID 3	134.05	82.27	13.00	16.10	18.71	20.76
SO BUILDWID 3	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDHGT 4	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 4	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 4	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 4	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 4	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 4	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDWID 4	20.97	22.30	22.95	22.91	22.17	20.76
SO BUILDWID 4	18.71	16.10	13.00	16.10	18.71	20.76
SO BUILDWID 4	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDWID 4	20.97	22.30	286.80	259.30	223.93	181.75
SO BUILDWID 4	134.05	82.27	13.00	16.10	18.71	20.76
SO BUILDWID 4	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDHGT 11	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 11	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 11	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 11	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 11	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 11	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDWID 11	20.97	22.30	22.95	22.91	22.17	20.76
SO BUILDWID 11	18.71	16.10	13.00	16.10	18.71	20.76
SO BUILDWID 11	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDWID 11	20.97	22.30	286.80	259.30	223.93	181.75
SO BUILDWID 11	134.05	82.27	13.00	16.10	18.71	20.76
SO BUILDWID 11	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDHGT 12	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 12	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 12	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 12	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 12	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 12	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDWID 12	20.97	22.30	22.95	22.91	22.17	20.76
SO BUILDWID 12	18.71	16.10	13.00	16.10	18.71	20.76
SO BUILDWID 12	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDWID 12	20.97	22.30	286.80	259.30	223.93	181.75
SO BUILDWID 12	134.05	82.27	13.00	16.10	18.71	20.76
SO BUILDWID 12	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDHGT 13	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 13	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 13	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 13	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 13	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 13	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDWID 13	20.97	22.30	22.95	22.91	22.17	20.76
SO BUILDWID 13	18.71	16.10	13.00	16.10	18.71	20.76
SO BUILDWID 13	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDWID 13	20.97	22.30	286.80	259.30	223.93	181.75
SO BUILDWID 13	134.05	82.27	13.00	16.10	18.71	20.76
SO BUILDWID 13	22.17	22.91	22.95	22.30	20.97	19.00
SO BUILDHGT 14	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 14	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 14	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 14	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 14	10.50	10.50	10.50	10.50	10.50	10.50
SO BUILDHGT 14	10.50	10.50	10.50	10.50	10.50	10.50

```
SO BUILDW.   .4          20.97     22.30     22.95     22.91     22.17      .76
SO BUILDWID 14           18.71     16.10     13.00     16.10     18.71     20.76
SO BUILDWID 14           22.17     22.91     22.95     22.30     20.97     19.00
SO BUILDWID 14           20.97     22.30    286.80    259.30    223.93    181.75
SO BUILDWID 14          134.05     82.27     13.00     16.10     18.71     20.76
SO BUILDWID 14           22.17     22.91     22.95     22.30     20.97     19.00


SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP   PM-10      1 11
SO SRCGROUP    CO        2 12
SO FINISHED

RE STARTING
RE GRIDPOLR Ptl STA
RE GRIDPOLR Ptl ORIG        0.0        0.0
RE GRIDPOLR Ptl DIST      152.0      175.0     200.0     250.0
RE GRIDPOLR Ptl DDIR    10.00    20.00    30.00    40.00
RE GRIDPOLR Ptl DDIR   340.00   350.00   300.00   360.00
RE GRIDPOLR Ptl END
RE DISCCART       -166.63      84.06
RE DISCCART       -140.25      88.13
RE DISCCART       -113.88      92.19
RE DISCCART        -87.50      96.25
RE DISCCART        -61.13     100.31
RE DISCCART        -34.75     104.38
RE DISCCART         -8.38     108.44
RE DISCCART         18.00     112.50
RE DISCCART         44.38     116.56
RE DISCCART         70.75     120.63
RE DISCCART         97.13     124.69
RE DISCCART        123.50     128.75
RE DISCCART        149.88     132.81
RE DISCCART        176.25     136.88
RE DISCCART        202.63     140.94
RE DISCCART        229.00     145.00
RE FINISHED


ME STARTING
ME INPUTFIL  pok83.met                              (4I2,2F9.4,F6.1,I2,2F7.1)
ME ANEMHGHT   10.000 METERS
ME SURFDATA  99999  1983            SURFNAME
ME UAIRDATA  99999  1983            UAIRNAME
ME STARTEND  83 01 01  83 12 31
ME WINDCATS    1.54     3.09     5.14     8.23    10.80
ME FINISHED


OU STARTING
OU MAXTABLE ALLAVE  20
OU FINISHED

***********************************
*** SETUP Finishes Successfully ***
***********************************

 *** ISCST2 - VERSION 92062 ***    *** Simplot boiler change  : 1 PM-10, 2 CO, 3 NOx, 4 SO2                 ***        05/05/95
                                   ***                                                                        ***        15:59:25
                                                                                                                         PAGE   1

 *** MODELING OPTIONS USED:  CONC   URBAN  FLAT                          NOSTD          NOCALM

                                          ***     MODEL SETUP OPTIONS SUMMARY        ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses URBAN Dispersion.

**Model Uses User-Specified Options:
          1. Final Plume Rise.
          2. Not Use Stack-tip Downwash.
          3. Buoyancy-induced Dispersion.
          4. Not Use Calms Processing Routine.
          5. Not Use Missing Data Processing Routine.
          6. Default Wind Profile Exponents.
          7. Default Vertical Potential Temperature Gradients.

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates  2 Short Term Average(s) of:   8-HR  24-HR
    and Calculates PERIOD Averages

**This Run Includes:    8 Source(s);      2 Source Group(s); and     48 Receptor(s)

**The Model Assumes A Pollutant Type of:  OTHER

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
        Model Outputs Tables of PERIOD Averages by Receptor
        Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)

**Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =    .0000     ;    Rot. Angle =      .0
                 Emission Units = (GRAMS/SEC)                                ;  Emission Rate Unit Factor =    .10000E+07
                 Output Units   = (MICROGRAMS/CUBIC-METER)

**Input Runstream File: simpboi.in                              ;  **Output Print File: simpboi.out
**Detailed Error/Message File:   ERRORS.OUT
 *** ISCST2 - VERSION 92062 ***    *** Simplot boiler change  : 1 PM-10, 2 CO, 3 NOx, 4 SO2                 ***        05/05/95
                                   ***                                                                        ***        15:59:25
                                                                                                                         PAGE   2

 *** MODELING OPTIONS USED:  CONC   URBAN  FLAT                          NOSTD         NOCALM


                                          *** POINT SOURCE DATA ***

            NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK     STACK    BUILDING EMISSION RATE
   SOURCE    PART. (USER UNITS)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER   EXISTS   SCALAR VARY
    ID       CATS.                (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                 BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  1          0    .81000E-01       .0        .0       .0    11.30   419.00     4.99     1.52      YES
  2          0    .14800E+01       .0        .0       .0    11.30   419.00     4.99     1.52      YES
  3          0    .36200E+00       .0        .0       .0    11.30   419.00     4.99     1.52      YES
  4          0    .50000E-02       .0        .0       .0    11.30   419.00     4.99     1.52      YES
  11         0   -.11900E+00       .0        .0       .0    13.70   505.00     7.75     1.22      YES
  12         0   -.20300E+00       .0        .0       .0    13.70   505.00     7.75     1.22      YES
  13         0   -.20800E+01       .0        .0       .0    13.70   505.00     7.75     1.22      YES
  14         0   -.70000E-02       .0        .0       .0    13.70   505.00     7.75     1.22      YES
 *** ISCST2 - VERSION 92062 ***    *** Simplot boiler change  : 1 PM-10, 2 CO, 3 NOx, 4 SO2                 ***        05/05/95
                                   ***                                                                        ***        15:59:25
                                                                                                                         PAGE   3

 *** MODELING OPTIONS USED:  CONC   URBAN  FLAT                          NOSTD         NOCALM
```

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
PM-10	1 , 11 ,
CO	2 , 12 ,

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: 1

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.5,	21.0,	0	2	10.5,	22.3,	0	3	10.5,	22.9,	0	4	10.5,	22.9,	0	5	10.5,	22.2,	0	6	10.5,	20.8,	0
7	10.5,	18.7,	0	8	10.5,	16.1,	0	9	10.5,	13.0,	0	10	10.5,	16.1,	0	11	10.5,	18.7,	0	12	10.5,	20.8,	0
13	10.5,	22.2,	0	14	10.5,	22.9,	0	15	10.5,	22.9,	0	16	10.5,	22.3,	0	17	10.5,	21.0,	0	18	10.5,	19.0,	0
19	10.5,	21.0,	0	20	10.5,	22.3,	0	21	10.5,	286.8,	0	22	10.5,	259.3,	0	23	10.5,	223.9,	0	24	10.5,	181.8,	0
25	10.5,	134.1,	0	26	10.5,	82.3,	0	27	10.5,	13.0,	0	28	10.5,	16.1,	0	29	10.5,	18.7,	0	30	10.5,	20.8,	0
31	10.5,	22.2,	0	32	10.5,	22.9,	0	33	10.5,	22.9,	0	34	10.5,	22.3,	0	35	10.5,	21.0,	0	36	10.5,	19.0,	0

SOURCE ID: 2

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.5,	21.0,	0	2	10.5,	22.3,	0	3	10.5,	22.9,	0	4	10.5,	22.9,	0	5	10.5,	22.2,	0	6	10.5,	20.8,	0
7	10.5,	18.7,	0	8	10.5,	16.1,	0	9	10.5,	13.0,	0	10	10.5,	16.1,	0	11	10.5,	18.7,	0	12	10.5,	20.8,	0
13	10.5,	22.2,	0	14	10.5,	22.9,	0	15	10.5,	22.9,	0	16	10.5,	22.3,	0	17	10.5,	21.0,	0	18	10.5,	19.0,	0
19	10.5,	21.0,	0	20	10.5,	22.3,	0	21	10.5,	286.8,	0	22	10.5,	259.3,	0	23	10.5,	223.9,	0	24	10.5,	181.8,	0
25	10.5,	134.1,	0	26	10.5,	82.3,	0	27	10.5,	13.0,	0	28	10.5,	16.1,	0	29	10.5,	18.7,	0	30	10.5,	20.8,	0
31	10.5,	22.2,	0	32	10.5,	22.9,	0	33	10.5,	22.9,	0	34	10.5,	22.3,	0	35	10.5,	21.0,	0	36	10.5,	19.0,	0

SOURCE ID: 3

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.5,	21.0,	0	2	10.5,	22.3,	0	3	10.5,	22.9,	0	4	10.5,	22.9,	0	5	10.5,	22.2,	0	6	10.5,	20.8,	0
7	10.5,	18.7,	0	8	10.5,	16.1,	0	9	10.5,	13.0,	0	10	10.5,	16.1,	0	11	10.5,	18.7,	0	12	10.5,	20.8,	0
13	10.5,	22.2,	0	14	10.5,	22.9,	0	15	10.5,	22.9,	0	16	10.5,	22.3,	0	17	10.5,	21.0,	0	18	10.5,	19.0,	0
19	10.5,	21.0,	0	20	10.5,	22.3,	0	21	10.5,	286.8,	0	22	10.5,	259.3,	0	23	10.5,	223.9,	0	24	10.5,	181.8,	0
25	10.5,	134.1,	0	26	10.5,	82.3,	0	27	10.5,	13.0,	0	28	10.5,	16.1,	0	29	10.5,	18.7,	0	30	10.5,	20.8,	0
31	10.5,	22.2,	0	32	10.5,	22.9,	0	33	10.5,	22.9,	0	34	10.5,	22.3,	0	35	10.5,	21.0,	0	36	10.5,	19.0,	0

SOURCE ID: 4

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.5,	21.0,	0	2	10.5,	22.3,	0	3	10.5,	22.9,	0	4	10.5,	22.9,	0	5	10.5,	22.2,	0	6	10.5,	20.8,	0
7	10.5,	18.7,	0	8	10.5,	16.1,	0	9	10.5,	13.0,	0	10	10.5,	16.1,	0	11	10.5,	18.7,	0	12	10.5,	20.8,	0
13	10.5,	22.2,	0	14	10.5,	22.9,	0	15	10.5,	22.9,	0	16	10.5,	22.3,	0	17	10.5,	21.0,	0	18	10.5,	19.0,	0
19	10.5,	21.0,	0	20	10.5,	22.3,	0	21	10.5,	286.8,	0	22	10.5,	259.3,	0	23	10.5,	223.9,	0	24	10.5,	181.8,	0
25	10.5,	134.1,	0	26	10.5,	82.3,	0	27	10.5,	13.0,	0	28	10.5,	16.1,	0	29	10.5,	18.7,	0	30	10.5,	20.8,	0
31	10.5,	22.2,	0	32	10.5,	22.9,	0	33	10.5,	22.9,	0	34	10.5,	22.3,	0	35	10.5,	21.0,	0	36	10.5,	19.0,	0

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: 11

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.5,	21.0,	0	2	10.5,	22.3,	0	3	10.5,	22.9,	0	4	10.5,	22.9,	0	5	10.5,	22.2,	0	6	10.5,	20.8,	0
7	10.5,	18.7,	0	8	10.5,	16.1,	0	9	10.5,	13.0,	0	10	10.5,	16.1,	0	11	10.5,	18.7,	0	12	10.5,	20.8,	0
13	10.5,	22.2,	0	14	10.5,	22.9,	0	15	10.5,	22.9,	0	16	10.5,	22.3,	0	17	10.5,	21.0,	0	18	10.5,	19.0,	0
19	10.5,	21.0,	0	20	10.5,	22.3,	0	21	10.5,	286.8,	0	22	10.5,	259.3,	0	23	10.5,	223.9,	0	24	10.5,	181.8,	0
25	10.5,	134.1,	0	26	10.5,	82.3,	0	27	10.5,	13.0,	0	28	10.5,	16.1,	0	29	10.5,	18.7,	0	30	10.5,	20.8,	0
31	10.5,	22.2,	0	32	10.5,	22.9,	0	33	10.5,	22.9,	0	34	10.5,	22.3,	0	35	10.5,	21.0,	0	36	10.5,	19.0,	0

SOURCE ID: 12

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.5,	21.0,	0	2	10.5,	22.3,	0	3	10.5,	22.9,	0	4	10.5,	22.9,	0	5	10.5,	22.2,	0	6	10.5,	20.8,	0
7	10.5,	18.7,	0	8	10.5,	16.1,	0	9	10.5,	13.0,	0	10	10.5,	16.1,	0	11	10.5,	18.7,	0	12	10.5,	20.8,	0
13	10.5,	22.2,	0	14	10.5,	22.9,	0	15	10.5,	22.9,	0	16	10.5,	22.3,	0	17	10.5,	21.0,	0	18	10.5,	19.0,	0
19	10.5,	21.0,	0	20	10.5,	22.3,	0	21	10.5,	286.8,	0	22	10.5,	259.3,	0	23	10.5,	223.9,	0	24	10.5,	181.8,	0
25	10.5,	134.1,	0	26	10.5,	82.3,	0	27	10.5,	13.0,	0	28	10.5,	16.1,	0	29	10.5,	18.7,	0	30	10.5,	20.8,	0
31	10.5,	22.2,	0	32	10.5,	22.9,	0	33	10.5,	22.9,	0	34	10.5,	22.3,	0	35	10.5,	21.0,	0	36	10.5,	19.0,	0

SOURCE ID: 13

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.5,	21.0,	0	2	10.5,	22.3,	0	3	10.5,	22.9,	0	4	10.5,	22.9,	0	5	10.5,	22.2,	0	6	10.5,	20.8,	0
7	10.5,	18.7,	0	8	10.5,	16.1,	0	9	10.5,	13.0,	0	10	10.5,	16.1,	0	11	10.5,	18.7,	0	12	10.5,	20.8,	0
13	10.5,	22.2,	0	14	10.5,	22.9,	0	15	10.5,	22.9,	0	16	10.5,	22.3,	0	17	10.5,	21.0,	0	18	10.5,	19.0,	0
19	10.5,	21.0,	0	20	10.5,	22.3,	0	21	10.5,	286.8,	0	22	10.5,	259.3,	0	23	10.5,	223.9,	0	24	10.5,	181.8,	0
25	10.5,	134.1,	0	26	10.5,	82.3,	0	27	10.5,	13.0,	0	28	10.5,	16.1,	0	29	10.5,	18.7,	0	30	10.5,	20.8,	0
31	10.5,	22.2,	0	32	10.5,	22.9,	0	33	10.5,	22.9,	0	34	10.5,	22.3,	0	35	10.5,	21.0,	0	36	10.5,	19.0,	0

SOURCE ID: 14

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.5,	21.0,	0	2	10.5,	22.3,	0	3	10.5,	22.9,	0	4	10.5,	22.9,	0	5	10.5,	22.2,	0	6	10.5,	20.8,	0
7	10.5,	18.7,	0	8	10.5,	16.1,	0	9	10.5,	13.0,	0	10	10.5,	16.1,	0	11	10.5,	18.7,	0	12	10.5,	20.8,	0
13	10.5,	22.2,	0	14	10.5,	22.9,	0	15	10.5,	22.9,	0	16	10.5,	22.3,	0	17	10.5,	21.0,	0	18	10.5,	19.0,	0
19	10.5,	21.0,	0	20	10.5,	22.3,	0	21	10.5,	286.8,	0	22	10.5,	259.3,	0	23	10.5,	223.9,	0	24	10.5,	181.8,	0
25	10.5,	134.1,	0	26	10.5,	82.3,	0	27	10.5,	13.0,	0	28	10.5,	16.1,	0	29	10.5,	18.7,	0	30	10.5,	20.8,	0
31	10.5,	22.2,	0	32	10.5,	22.9,	0	33	10.5,	22.9,	0	34	10.5,	22.3,	0	35	10.5,	21.0,	0	36	10.5,	19.0,	0

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: PTL ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = .00 ; Y-ORIG = .00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

152.0, 175.0, 200.0, 250.0,

*** DIRECTION RADIALS OF NETWORK ***

(DEGREES)

10.0, 20.0, 30.0, 40.0, 340.0, 350.0, 300.0, 360.0,

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(-166.6,	84.1,	.0,	.0);	(-140.3,	88.1,	.0,	.0);
(-113.9,	92.2,	.0,	.0);	(-87.5,	96.3,	.0,	.0);
(-61.1,	100.3,	.0,	.0);	(-34.8,	104.4,	.0,	.0);
(-8.4,	108.4,	.0,	.0);	(18.0,	112.5,	.0,	.0);
(44.4,	116.6,	.0,	.0);	(70.8,	120.6,	.0,	.0);
(97.1,	124.7,	.0,	.0);	(123.5,	128.8,	.0,	.0);
(149.9,	132.8,	.0,	.0);	(176.3,	136.9,	.0,	.0);
(202.6,	140.9,	.0,	.0);	(229.0,	145.0,	.0,	.0);

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1			

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 83 1 1 0
AND END DATE: 83 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: pok83.met FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1)
SURFACE STATION NO.: 99999 UPPER AIR STATION NO.: 99999
NAME: SURFNAME NAME: UAIRNAME
YEAR: 1983 YEAR: 1983

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN
83	1	1	1	87.0	1.50	255.0	7	90.0	329.0
83	1	1	2	113.0	1.00	254.0	6	90.0	329.0
83	1	1	3	322.0	1.00	253.0	7	90.0	329.0
83	1	1	4	9.0	1.00	253.0	7	90.0	329.0
83	1	1	5	117.0	2.60	254.0	6	90.0	329.0
83	1	1	6	247.0	1.00	253.0	7	90.0	329.0
83	1	1	7	156.0	1.00	253.0	7	90.0	329.0
83	1	1	8	153.0	1.00	253.0	7	90.0	329.0
83	1	1	9	262.0	1.00	253.0	6	14.0	293.0
83	1	1	10	136.0	1.00	255.0	5	29.0	252.0
83	1	1	11	132.0	1.50	257.0	4	44.0	212.0
83	1	1	12	269.0	1.50	261.0	3	59.0	171.0
83	1	1	13	269.0	1.00	265.0	2	75.0	131.0
83	1	1	14	221.0	1.50	266.0	2	90.0	90.0
83	1	1	15	204.0	2.10	265.0	3	90.0	90.0
83	1	1	16	200.0	2.60	264.0	4	90.0	90.0
83	1	1	17	193.0	1.50	262.0	5	90.0	90.0
83	1	1	18	130.0	1.50	260.0	6	94.0	124.0
83	1	1	19	116.0	1.50	258.0	7	98.0	158.0
83	1	1	20	107.0	1.50	257.0	7	102.0	193.0
83	1	1	21	192.0	1.50	256.0	7	106.0	227.0
83	1	1	22	119.0	1.50	256.0	7	110.0	261.0
83	1	1	23	118.0	1.50	256.0	7	113.0	295.0
83	1	1	24	247.0	1.00	256.0	7	117.0	329.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM-10 ***
INCLUDING SOURCE(S): 1 , 11 ,

*** NETWORK ID: PTL ; NETWORK : GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 152.00	175.00	200.00	250.00
10.00	-.01874	-.02132	-.01933	-.01075
20.00	-.01303	-.01822	-.01799	-.01062
30.00	-.03013	-.03449	-.03274	-.02117
40.00	-.07451	-.07240	-.06404	-.04180
340.00	-.02427	-.02573	-.02274	-.01260
350.00	-.02470	-.02555	-.02225	-.01249
300.00	.04442	.02105	.01233	.01280
360.00	-.02650	-.02710	-.02346	-.01319

*** ISCST2 - VERSION 92062 *** *** Simplot boiler change : 1 PM-10, 2 CO, 3 NOx, 4 SO2 *** 05/05/95
*** *** 15:59:25
PAGE 11

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM-10 ***
INCLUDING SOURCE(S): 1 , 11 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-166.63	84.06	.01320	-140.25	88.13	.02884
-113.88	92.19	.03649	-87.50	96.25	-.00017
-61.13	100.31	-.01856	-34.75	104.38	.00115
-8.38	108.44	-.00417	18.00	112.50	.00359
44.38	116.56	.00608	70.75	120.63	-.02551
97.13	124.69	-.06483	123.50	128.75	-.08640
149.88	132.81	-.08858	176.25	136.88	-.07510
202.63	140.94	-.06419	229.00	145.00	-.05954

*** ISCST2 - VERSION 92062 *** *** Simplot boiler change : 1 PM-10, 2 CO, 3 NOx, 4 SO2 *** 05/05/95
*** *** 15:59:25
PAGE 12

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CO ***
INCLUDING SOURCE(S): 2 , 12 ,

*** NETWORK ID: PTL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 152.00	175.00	200.00	250.00
10.00	5.00299	3.97096	3.21185	2.37848
20.00	5.66203	4.49471	3.62736	2.66239
30.00	7.39970	5.85761	4.70070	3.39931
40.00	9.89760	7.81494	6.25425	4.49121
340.00	4.79276	3.79564	3.06696	2.26895
350.00	4.59940	3.64572	2.94968	2.18820
300.00	9.55772	7.66622	6.29977	4.81875
360.00	4.80100	3.80704	3.08164	2.29062

*** ISCST2 - VERSION 92062 *** *** Simplot boiler change : 1 PM-10, 2 CO, 3 NOx, 4 SO2 *** 05/05/95
*** *** 15:59:25
PAGE 13

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CO ***
INCLUDING SOURCE(S): 2 , 12 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-166.63	84.06	5.67262	-140.25	88.13	9.26559
-113.88	92.19	13.09781	-87.50	96.25	13.27744
-61.13	100.31	9.71490	-34.75	104.38	7.77352
-8.38	108.44	7.87328	18.00	112.50	7.79704
44.38	116.56	7.87703	70.75	120.63	8.56940
97.13	124.69	8.78424	123.50	128.75	8.21519
149.88	132.81	7.24089	176.25	136.88	6.31285
202.63	140.94	5.43678	229.00	145.00	4.66743

*** ISCST2 - VERSION 92062 *** *** Simplot boiler change : 1 PM-10, 2 CO, 3 NOx, 4 SO2 *** 05/05/95
*** *** 15:59:25
PAGE 14

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE MAXIMUM 20 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM-10 ***
INCLUDING SOURCE(S): 1 , 11 ,

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE
1.	3.31992	(83091624)	AT (	70.75, 120.63)	DC	11.	1.96565	(83090608)	AT (	-131.64, 76.00)	GP
2.	3.06700	(83091624)	AT (	44.38, 116.56)	DC	12.	1.95691	(83032324)	AT (	44.38, 116.56)	DC
3.	2.82826	(83091624)	AT (	76.00, 131.64)	GP	13.	1.94216	(83102224)	AT (	18.00, 112.50)	DC
4.	2.37327	(83090408)	AT (	-131.64, 76.00)	GP	14.	1.92609	(83041408)	AT (	-113.88, 92.19)	DC
5.	2.37291	(83100424)	AT (	-8.38, 108.44)	DC	15.	1.86774	(83110524)	AT (	-113.88, 92.19)	DC
6.	2.09803	(83100508)	AT (	-34.75, 104.38)	DC	16.	1.85542	(83041508)	AT (	-87.50, 96.25)	DC
7.	2.04656	(83091624)	AT (	87.50, 151.55)	GP	17.	1.80255	(83072724)	AT (	-113.88, 92.19)	DC
8.	2.04489	(83092524)	AT (	-131.64, 76.00)	GP	18.	1.79875	(83091624)	AT (	51.99, 142.83)	GP
9.	2.02165	(83100524)	AT (	-8.38, 108.44)	DC	19.	1.78559	(83040524)	AT (	-113.88, 92.19)	DC
10.	2.01937	(83090408)	AT (	-140.25, 88.13)	DC	20.	1.77413	(83092508)	AT (	-113.88, 92.19)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST2 - VERSION 92062 *** *** Simplot boiler change : 1 PM-10, 2 CO, 3 NOx, 4 SO2 *** 05/05/95
*** *** 15:59:25
PAGE 15

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE MAXIMUM 20 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CO ***
INCLUDING SOURCE(S): 2 , 12 ,

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE
1.	121.12890	(83012616)	AT (	-61.13, 100.31)	DC	11.	108.33000	(83030224)	AT (	-61.13, 100.31)	DC
2.	120.27190	(83041508)	AT (	-87.50, 96.25)	DC	12.	107.80140	(83110616)	AT (	-8.38, 108.44)	DC
3.	118.46640	(83040708)	AT (	-87.50, 96.25)	DC	13.	107.68210	(83070708)	AT (	-34.75, 104.38)	DC
4.	114.91710	(83040208)	AT (	18.00, 112.50)	DC	14.	106.81960	(83090808)	AT (	-34.75, 104.38)	DC
5.	114.91120	(83121116)	AT (	-61.13, 100.31)	DC	15.	106.69620	(83061708)	AT (	-131.64, 76.00)	GP
6.	114.33070	(83041908)	AT (	-87.50, 96.25)	DC	16.	106.68000	(83090608)	AT (	-131.64, 76.00)	GP

7.	.30720	(83110408)	AT (	-113.88,	92.19)	DC	17.	105.46300	(83061124)	AT (	97.70,	116.44)	GP
8.	112.95630	(83040708)	AT (	-113.88,	92.19)	DC	18.	105.34930	(83012716)	AT (	-34.75,	104.38)	DC
9.	112.21850	(83110916)	AT (	-87.50,	96.25)	DC	19.	104.81260	(83060308)	AT (	-87.50,	96.25)	DC
10.	110.01210	(83011908)	AT (	-87.50,	96.25)	DC	20.	104.46720	(83060308)	AT (	-113.88,	92.19)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST2 - VERSION 92062 *** *** Simplot boiler change : 1 PM-10, 2 CO, 3 NOx, 4 SO2 *** 05/05/95
*** *** 15:59:25
PAGE 16

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE MAXIMUM 20 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM-10 ***
INCLUDING SOURCE(S): 1 , 11 ,

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)		OF TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)		OF TYPE
1.	1.18673	(83091624)	AT (	44.38,	116.56)	DC	11.	.78129	(83041524)	AT (	-113.88,	92.19)	DC
2.	1.11010	(83091624)	AT (	70.75,	120.63)	DC	12.	.77124	(83092524)	AT (	-140.25,	88.13)	DC
3.	1.04127	(83041524)	AT (	-87.50,	96.25)	DC	13.	.75239	(83072824)	AT (	-113.88,	92.19)	DC
4.	1.00880	(83100524)	AT (	-34.75,	104.38)	DC	14.	.74362	(83041424)	AT (	-113.88,	92.19)	DC
5.	.94708	(83091624)	AT (	76.00,	131.64)	GP	15.	.74024	(83100424)	AT (	-8.38,	108.44)	DC
6.	.91710	(83092524)	AT (	-131.64,	76.00)	GP	16.	.72638	(83091624)	AT (	51.99,	142.83)	GP
7.	.87804	(83081224)	AT (	-113.88,	92.19)	DC	17.	.71938	(83100524)	AT (	-8.38,	108.44)	DC
8.	.85229	(83092524)	AT (	-113.88,	92.19)	DC	18.	.70468	(83072724)	AT (	-113.88,	92.19)	DC
9.	.82356	(83040624)	AT (	-113.88,	92.19)	DC	19.	.70259	(83101924)	AT (	-131.64,	76.00)	GP
10.	.79109	(83090424)	AT (	-131.64,	76.00)	GP	20.	.69485	(83091224)	AT (	-131.64,	76.00)	GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST2 - VERSION 92062 *** *** Simplot boiler change : 1 PM-10, 2 CO, 3 NOx, 4 SO2 *** 05/05/95
*** *** 15:59:25
PAGE 17

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE MAXIMUM 20 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CO ***
INCLUDING SOURCE(S): 2 , 12 ,

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)		OF TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)		OF TYPE
1.	88.43064	(83022724)	AT (	-61.13,	100.31)	DC	11.	65.79640	(83012224)	AT (	-61.13,	100.31)	DC
2.	81.06942	(83021724)	AT (	-87.50,	96.25)	DC	12.	65.61048	(83012224)	AT (	-87.50,	96.25)	DC
3.	80.64097	(83110924)	AT (	-87.50,	96.25)	DC	13.	63.97353	(83010624)	AT (	70.75,	120.63)	DC
4.	80.06358	(83070724)	AT (	-34.75,	104.38)	DC	14.	63.40657	(83012624)	AT (	-87.50,	96.25)	DC
5.	76.48487	(83022724)	AT (	-87.50,	96.25)	DC	15.	63.32283	(83062324)	AT (	-8.38,	108.44)	DC
6.	74.73114	(83030224)	AT (	-34.75,	104.38)	DC	16.	62.13825	(83041524)	AT (	-87.50,	96.25)	DC
7.	73.77894	(83022024)	AT (	-87.50,	96.25)	DC	17.	61.62282	(83121124)	AT (	-87.50,	96.25)	DC
8.	70.56801	(83110924)	AT (	-113.88,	92.19)	DC	18.	60.50027	(83110624)	AT (	-8.38,	108.44)	DC
9.	69.70274	(83021724)	AT (	-61.13,	100.31)	DC	19.	60.35454	(83022024)	AT (	-113.88,	92.19)	DC
10.	68.96302	(83030224)	AT (	-61.13,	100.31)	DC	20.	60.01389	(83022524)	AT (	-34.75,	104.38)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
PM-10	1ST HIGHEST VALUE IS	.04442 AT	(-131.64, 76.00, .00, .00)	GP	PTL
	2ND HIGHEST VALUE IS	.03649 AT	(-113.88, 92.19, .00, .00)	DC	
	3RD HIGHEST VALUE IS	.02884 AT	(-140.25, 88.13, .00, .00)	DC	
	4TH HIGHEST VALUE IS	.02105 AT	(-151.55, 87.50, .00, .00)	GP	PTL
	5TH HIGHEST VALUE IS	.01320 AT	(-166.63, 84.06, .00, .00)	DC	
	6TH HIGHEST VALUE IS	.01280 AT	(-216.51, 125.00, .00, .00)	GP	PTL
CO	1ST HIGHEST VALUE IS	13.27744 AT	(-87.50, 96.25, .00, .00)	DC	
	2ND HIGHEST VALUE IS	13.09781 AT	(-113.88, 92.19, .00, .00)	DC	
	3RD HIGHEST VALUE IS	9.89760 AT	(97.70, 116.44, .00, .00)	GP	PTL
	4TH HIGHEST VALUE IS	9.71490 AT	(-61.13, 100.31, .00, .00)	DC	
	5TH HIGHEST VALUE IS	9.55772 AT	(-131.64, 76.00, .00, .00)	GP	PTL
	6TH HIGHEST VALUE IS	9.26559 AT	(-140.25, 88.13, .00, .00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC URBAN FLAT NOSTD NOCALM

*** Message Summary For ISC2 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 47 Warning Message(s)
A Total of 0 Informational Message(s)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********

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MX W420 7980 METQA : Wind Speed Out-of-Range.   KURDAT=          83112912
MX W430 8499 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=   83122103
MX W430 8500 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=   83122104
MX W430 8501 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=   83122105
MX W430 8502 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=   83122106
MX W430 8503 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=   83122107
MX W430 8504 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=   83122108
MX W430 8505 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=   83122109
MX W430 8506 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=   83122110
MX W430 8516 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=   83122120
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MX W430 [illegible] METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    [illegible]122121
MX W430 8518 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122122
MX W430 8519 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122123
MX W430 8520 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122124
MX W430 8521 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122201
MX W430 8522 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122202
MX W430 8523 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122203
MX W430 8524 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122204
MX W430 8525 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122205
MX W430 8526 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122206
MX W430 8527 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122207
MX W430 8528 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122208
MX W430 8529 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122209
MX W430 8530 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122210
MX W430 8531 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122211
MX W430 8538 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122218
MX W430 8539 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122219
MX W430 8540 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122220
MX W430 8541 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122221
MX W430 8542 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122222
MX W430 8543 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122223
MX W430 8544 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122224
MX W430 8545 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122301
MX W430 8546 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122302
MX W430 8547 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122303
MX W430 8549 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122305
MX W430 8550 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122306
MX W430 8551 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122307
MX W430 8552 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122308
MX W430 8553 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122309
MX W430 8554 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122310
MX W430 8555 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122311
MX W430 8556 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122312
MX W430 8559 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122315
MX W430 8560 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122316
MX W430 8561 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122317
MX W430 8562 METQA : Ambient Temperature Data Out-of-Range.  KURDAT=    83122318

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   *** ISCST2 Finishes Successfully ***
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