PACIFICORP ENERGY
A DIVISION OF PACIFICORP

DAVE JOHNSTON STEAM ELECTRIC PLANT

1591 TANK FARM ROAD • GLENROCK, WYOMING 82637 • PHONE (307) 436-2712 • FAX (307) 436-2020

November 9, 2007

Mr. Dave Finley, Administrator
Wyoming Division of Air Quality
122 West 25th Street
Herschler Building, 2nd Floor
Cheyenne, Wyoming 82002

Re: Dave Johnston Plant Chapter 6, Section 2 Construction Permit Application

Dear Mr. Finley:

PacifiCorp is planning to install between April 2007 and September 2012 air pollution control equipment on Dave Johnston units 3 and 4, along with other capital and O&M projects as specified in the attached Chapter 6, Section 2 construction permit application. The air pollution control equipment to be installed consists of flue gas desulfurization and low NO_X burners on units 3 and 4.

This application is submitted in accordance with the Wyoming Air Quality Standards and Regulations and requests a construction permit to be issued for the projects specified in the application.

PacifiCorp is requesting Plantwide Applicability Limitations for sulfur dioxide and nitrogen oxides and requests that these limitations be reflected in the construction permit.

Based on information and belief formed after reasonable inquiry, the statements and information in the construction permit application are true, accurate and complete.

If you have questions or require additional information, please contact Bill Lawson at (801) 220-4581 or Alan Dugan at (307) 436-2046.

Sincerely,

Gregory L. Hager
Managing Director
Dave Johnston Plant

cc: Mike Mackey
Alan Dugan
Jim Doak
Bill Lawson

Dave Johnston Power Plant

Chapter 6, Section 2 Construction Permit Application

Submitted to the Wyoming Division of Air Quality
And Prepared by
PACIFICORP
A MIDAMERICAN ENERGY HOLDINGS COMPANY
1407 West North Temple
Salt Lake City, Utah 84116

November 2007

Contents

Tables

1.0 Introduction

PacifiCorp proposes to add new pollution control devices that will significantly lower unit-specific emissions for sulfur dioxide (SO_2), nitrogen oxides (NO_X), and particulate matter (PM) at the Dave Johnston Power Plant located near Glenrock, in Converse County, Wyoming. The installation of this pollution control equipment, along with planned maintenance activities, requires an analysis of the air quality impacts of the planned projects and submittal of this Chapter 6, Section 2 construction permit application to the Wyoming Division of Air Quality. Through this application, PacifiCorp Energy is seeking to:

- Obtain a Chapter 6, Section 2 construction permit for the proposed addition of new pollution control devices and other projects.

- Establish plantwide applicability limits for SO_2 and NO_X. Plantwide applicability limits will allow the facility to conduct ongoing plant maintenance while ensuring the facility remains in compliance with new source review requirements.

The Dave Johnston facility currently operates under Title V operating permit #31-148. The operating permit has incorporated all applicable requirements contained in the following permits: MD-377, MD-682, and the June 10, 1993 Chapter 6, Section 2(k) permit waiver.

1.1 Existing Operations

PacifiCorp operates the Dave Johnston power plant located near Glenrock, Wyoming. The plant consists of four coal-fueled steam-electric generating units designated as units 1, 2, 3 and 4, respectively. Unit 1, rated at 106 net megawatts, began operation in 1958; unit 2, rated at 106 net megawatts, began operation in 1960; unit 3, rated at 220 net megawatts, began operation in 1964; and, unit 4, rated at 330 net megawatts, commenced operation in 1972. The facility operates in compliance with state and federal air emission requirements. The Dave Johnston Power Plant is an existing major stationary source of air emissions.

1.2 Emissions Consideration

The emission control projects included in this permit application will result in lower unit-specific SO_2, NO_X and PM emission rates for units 3 and 4.

To establish a clear baseline for determining when PSD requirements may be triggered in the future, PacifiCorp is proposing to establish plantwide applicability limits for SO_2 and NO_X that would limit plantwide emissions of these pollutants at the facility to the "past actual baseline emissions" as defined by the Environmental Protection Agency's (EPA) "past actual to future actual emissions test." The plantwide applicability limits would be in addition to the new, lower unit-specific limits to be established as a result of adding the proposed air pollution control devices. Establishing plantwide limits for SO_2 and NO_X will ensure that any proposed project will not cause an associated emissions increase of these specific pollutants.

The installation of the advanced combustion controls to reduce NO_X emissions has the potential to increase carbon monoxide (CO) emissions from the facility. Therefore, PacifiCorp has included Best Available Control Technology (BACT) reviews for CO in this permit application. Also, to address concerns that the proposed air pollution control devices and other maintenance projects may be PSD triggering events for other PSD pollutants, this Chapter 6, Section 2 Permit Application includes a PSD evaluation for non-methane volatile organic compounds (VOCs), fluorides, particulate matter, sulfuric acid mist, and lead at the maximum possible operating rate to determine if significant net emissions increases of these pollutants might occur.

1.3 Prevention of Significant Deterioration Review

The facility is located in an area classified as attainment for all criteria pollutants [40 CFR 52.2320, including the 2002 amendments in FR 67 35444 and 67 44069] and is a listed PSD Source Category [40 CFR Part 52.21(b)(1)(i)(a)]; therefore, the requirements of the federal PSD program, as administered by the Wyoming Department of Environmental Quality and the Wyoming Division of Air Quality, will apply to the projects specified in this Chapter 6, Section 2 Permit Application.

As a result of the PSD review described in more detail below, PacifiCorp has concluded that there will not be a “significant” [40 CFR Part 52.21(b)(23) and WAQSR, Chapter 6, Section 4, “Significant” (i)] “net emissions increase” [40 CFR Part 52.21(b)(3) and WAQSR, Chapter 6, Section 4, “Significant emissions increase” (iii)] for SO_2 NO_X , PM, lead, sulfuric acid mist, or non-methane VOCs; therefore, a BACT review for these pollutants will not be required. PacifiCorp has included a BACT review for carbon monoxide.

1.4 Compliance with National Ambient Air Quality Standards for Class I and Class II Areas and NSPS

The facility, after completing the planned projects, will continue to meet all National Ambient Air Quality Standards (NAAQS) and the Class I and Class II PSD increments in the vicinity of the plant. A dispersion modeling analysis has been performed for CO which has the potential of a significant net emissions increase. At the request of the Wyoming Department of Environmental Quality a NAAQS impact analysis for all criteria pollutants has been performed. The facility will continue to meet the applicable New Source Performance Standards (NSPS) defined in the federal regulations at 40 CFR 60 Subpart D and Wyoming Air Quality Standard and Regulations Chapter 5, Section 2.

2.0 Project Description

PacifiCorp plans to install pollution control equipment and implement other plant projects between January 2008 and September 2012 as reflected in the project timeline shown in Table 2-1. These projects are listed in Appendices A through D. The projects identified are based on current plans and may be refined as overhaul schedules and equipment status change. As PacifiCorp further refines the project schedule and scope, additional information will be provided to the Wyoming Division of Air Quality.

The projects are summarized as follows:

Dave Johnston Unit 1

- Plant projects listed in Appendix A.

Dave Johnston Unit 2

- Plant projects listed in Appendix B.

Dave Johnston Unit 3

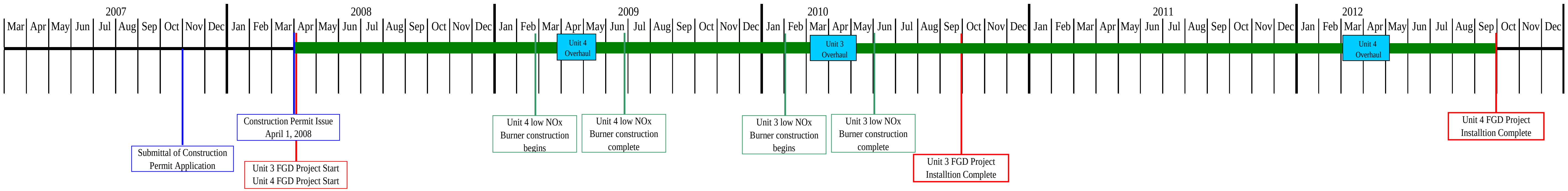
- Replacement of the existing cell burner configuration with low-NO_X burners.
- Installation of a spray dryer absorber flue gas desulfurization system.
- Installation of a baghouse.
- In-place abandonment of the existing electrostatic precipitator.
- Plant projects listed in Appendix C.

Dave Johnston Unit 4

- Replacement of the existing burners with a new Alstom LNCFS Level II low-NO_X firing system and the installation of one elevation of separated overfire air.
- Installation of a spray dryer absorber flue gas desulfurization system.
- Installation of a baghouse.
- Removal of the existing particulate matter wet venturi scrubber.
- Plant projects listed in Appendix D.

Table 2-1 Project Timeline

Dave Johnston Unit 3 Flue Gas Desulfurization / Low-NO_X Burners / Baghouse; Dave Johnston Unit 4 Flue Gas Desulfurization / Low-NOX Burners / Baghouse and Other Plant Projects



2007 Activities

2007 U1 Coal load-in washdown system
2007 U1 Dust suppression for feeders 33 and 34
2007 U1 Replace DC90 baghouse bags
2007 U1 CEM replacement - units 1, 2 and 3
2007 U1 Mercury monitors
2007 U2 Replace reheater attemperator
2007 U2 Combustion optimization projects
2007 U2 Replace partial assemblies in reheater
2007 U2 Replace air heater baskets and sootblowers
2007 U2 Burner ignitor replacement
2007 U2 Replace waterwall inlet header tube stubs
2007 U2 Replace boiler expansion joints
2007 U2 #2 low pressure feedwater heater
2007 U2 #2 high pressure feedwater heater
2007 U2 Replace sootblowers
2007 U2 Burner nozzle replacement
2007 U2 Radial and circumferential. Seal replacement
2007 U2 Replace air heater seals
2007 U3 Replace flyash unloaders (2)
2007 U4 CEM replacement

2008 Activities

2008 U1 Replace baghouse at load-in with suppression
2008 U1 Eliminate tripper deck bag house U3 and 4A
2008 U1 Remove tripper deck cyclones - 2008
2008 U1 Baghouse bag changes - 2008
2008 U1 Replace 36 first pass membranes
2008 U1 Turbine/generator major LSB
2008 U1 Replace lower HPSH assemblies
2008 U1 Waterwall inlet header tube stub replacement
2008 U1 Unit 1 boiler waterwall tube replacement
2008 U1 Burner front elbow replacement
2008 U1 Burner management & mft cabinets replacement
2008 U1 Boiler asbestos replacement
2008 U1 Burner nozzle replacement
2008 U1 FD/ID fan damper drive replacement
2008 U1 Replace coal sweeps
2008 U1 Replace bottom ash hopper
2008 U1 Replace duct expansion joints
2008 U1 Replace feedwater heater controls
2008 U1 Unit 1 tripper transfer point passive dust control
2008 U1 Unit 1 - replace flyash unloaders
2008 U1 CO monitor
2008 U1 Coal feeder and VFD upgrade
2008 U1 Combustion optimization projects
2008 U1 Air heater seals replacement
2008 U1 Replace precipitator avc controls
2008 U1 Replace pulverizer hot air dampers
2008 U1 Secondary superheater pendant replacement
2008 U1 Turbine instrumentation upgrade
2008 U2 U2 turbine-generator refurbishment
2008 U2 Burner front elbow replacement
2008 U2 Generator field refurbishment
2008 U2 Bentley critical equipment monitoring
2008 U2 Burner management & mft cabinets replacement
2008 U2 Replace airheater pin racks
2008 U3 Tripper transfer point passive dust control
2008 U4 Reheat outlet header tube stub replacement
2008 U4 Tripper transfer point passive dust control
2008 U3/4 FGD Project

2009 Activities

2009 U1 Remove tripper deck cyclones - 2009
2009 U1 Baghouse bag changes - 2009
2009 U2 Control room hvac replacement
2009 U3 Boiler feed pump motor replacement - 2009
2009 U4 Low NO_X burners
2009 U4 Replace unit 4 controls
2009 U4 Replace low pressure feedwater heater
2009 U4 Replace low pressure feedwater heater tube bundle
2009 U4 Replace air heater baskets
2009 U4 Airheater sootblowers
2009 U4 Replace ignitors
2009 U4 Boiler waterwall tube panel replacement
2009 U4 Replace boiler coutant slope
2009 U4 Replace remaining 98 horizontal superheater assemblies
2009 U4 Replace reheater
2009 U4 High pressure/intermediate pressure turbine
2009 U4 Replace finishing superheat dissimilar metal welds in penthouse
2009 U4 Replace IK sootblowers
2009 U4 Water wall burner crotch tube replacement
2009 U4 Drag chain rebuild
2009 U4 Replace reheater loops 4-8
2009 U4 Cooling tower rebuild
2009 U4 Generator field refurbishment
2009 U3/4 FGD Project

2010 Activities

2010 U2 Clean air - NOX
2010 U3 Hydrogen panel replacement
2010 U3 Boiler asbestos abatement
2010 U3 C mill PA flow replace
2010 U3 Generator stator rewedge
2010 U3 Replace twips controls
2010 U3 Replace burner impellers
2010 U3 Air preheater seal replacement
2010 U3 Boiler bifurcate tube replacement
2010 U3 Replace boiler/turbine controls
2010 U3 Economizer hoppers relocate - RES – SLC
2010 U3 Superheat assembly/header replacement
2010 U3 Turbine/generator major - 2009
2010 U3 Flue gas desulfurization system – spray dryer
2010 U3 Low NO_X burners
2010 U3 Replace front side slope boiler tubes
2010 U3 Replace boiler expansion joints
2010 U3 Boiler waterwall lagging supports
2010 U3 Waterwall tube replacement
2010 U3 Replace superheater tubing
2010 U3 Bottom ash hopper rebuild – 2010
2010 U3 Install economizer dry flight conveyor system
2010 U3 Replace superheater attemperator
2010 U3 CO monitor
2010 U3 Main transformer fire protection replacement
2010 U3 Replace safety valves - 2009
2010 U3/4 FGD Project

2011 Activities

2011 U2 Annunciator replacement
2011 U2 Boiler overhaul modifications
2011 U2 Boiler water wall tube replacement
2011 U2 Coal feeder replacement
2011 U2 HMI conversion
2011 U2 Replace high pressure superheater assemblies
2011 U2 Replace twips/feedwater level controls
2011 U2 Secondary superheater pendant replacement
2011 U4 FGD Project

2012 Activities

2012 U1 Boiler overhaul modifications
2012 U1 HMI conversion
2012 U1 Replace air heater baskets
2012 U1 Replace reheater header & terminal tubes
2012 U1 Replace battery bank/inverter
2012 U2 2.3 kv switch gear metering/project
2012 U2 Boiler asbestos abatement - 2012
2012 U2 CO monitor
2012 U2 Dcs component replacement
2012 U2 FD/ID fan damper drive replacement
2012 U2 Main transformer fire protection replacement
2012 U2 Replace air heater seals
2012 U2 Replace battery bank/inverter DCS
2012 U2 Replace mill damper drives
2012 U2 Turbine instrument upgrade
2012 U2 Replace reheater header & terminal tubes
2012 U4 Boiler overhaul modifications
2012 U4 DCS modifications
2012 U4 Platen secondary superheater replacement
2012 U4 Replace boiler upper arch tubes
2012 U4 Replace reheater & 1 superheater attemperators
2012 U4 Boiler waterwall tube panel replacement
2012 U4 Replace air heater seals
2012 U4 Replace burner nozzles
2012 U4 Replace finishing superheat dissimilar metal welds in penthouse
2012 U4 Replace PRV
2012 U4 Replace safety valve
2012 U4 Replace slag screen
2012 U4 Replace boiler upper arch refractory
2012 U4 FGD Project

Dave Johnston Unit 3 Flue Gas Desulfurization / Low-NO_X Burners / Baghouse; Dave Johnston Unit 4 Flue Gas Desulfurization / Low-NOX Burners / Baghouse and Other Plant Projects

3.0 List of Potential Emission Points and Air Contaminants Emissions Summary

The Dave Johnston facility currently operates under Title V operating permit #31-148. The operating permit has incorporated all applicable requirements contained in the following permits: MD-377, MD-682, and the June 10, 1993 Chapter 6, Section 2(k) permit waiver. The facility's Title V permit identifies the facility's emission points and potential air contaminants. There may be additional emission sources at the facility following the pollution control equipment installation, including scrubber reagent baghouses, etc.

4.0 Evaluation of Historic and Future Emissions

4.1 Estimate of Emission Rates

This section presents the method for conducting various PSD evaluations, including:

- A determination of baseline actual emissions for SO_2, NO_X, PM, CO, ozone (as non-methane VOCs), fluoride (as hydrogen fluoride), lead, and sulfuric acid mist.

- A determination of projected actual emissions of CO, PM, VOCs, fluorides, lead, and sulfuric acid mist. (No such determination is needed for SO_2 or NO_X because the plantwide applicability limits cap future emissions at past actual baseline emission rates).

- A comparison between the CO, PM, VOCs, fluorides, lead, and sulfuric acid mist past actual baselines and future potential emissions to determine if PSD significance levels are triggered.

This section also sets forth the proposed plantwide applicability limits for SO_2 and NO_X.

4.2 Baseline Actual Emissions

The pollutants of interest for this review are SO_2, NO_X, PM, CO, VOCs, fluorides, lead, and sulfuric acid mist.

4.2.1 Calculation of baseline actual emissions

40 CFR 52.21(b)(48)(i) describes baseline actual emissions for the Dave Johnston plant as follows:

Baseline actual emissions means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with paragraphs (b)(48)(i) through (iv) of this section.

> (i) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. The Administrator shall allow the use of a different time period upon a determination that it is more representative of normal source operation.

(*a*) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.

(*b*) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.

(*c*) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

(*d*) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraph (b)(48)(i)(*b*) of this section.

To identify and calculate baseline actual emissions, PacifiCorp has used data from the EPA Clean Markets Division's emissions data base. In order to comply with the EPA's acid rain program, PacifiCorp utilizes continuous emissions monitors (CEMs) to report hourly SO_2 and NO_X emissions for each unit at the Dave Johnston facility. CEMs are also used to obtain and report the hourly heat input into each unit's boiler. The hourly emissions and heat input data is submitted to the EPA on a quarterly basis and is readily available on EPA's website located at http://cfpub.epa.gov/gdm/. For purposes of this review the 5-year evaluation period is October 2002 through September 2007. The baseline actual emissions are summarized in Table 4-1.

SO_2 Emissions:

Appendix E, Table DJ-1 identifies the monthly SO_2 emissions for the relevant time period. This data was obtained from the Environmental Protection Agency's (EPA) Acid Rain Emissions data base.

NO_X Emissions:

Appendix E, Table DJ-2 identifies the monthly NO_X emissions for the relevant time period. This data was obtained from the Environmental Protection Agency's (EPA) Acid Rain Emissions data base.

Heat Input and Coal Burned Data:

Heat input to the boilers and/or the tons of coal consumed are used to calculate PM, CO, hydrogen fluoride, lead and sulfuric acid mist emissions. Appendix E, Table DJ-3 identifies the monthly heat input for the evaluation period. This data was obtained from the Environmental Protection Agency's (EPA) Acid Rain Emissions data base. Monthly coal-burned data was obtained from the Department of Energy's EIA 767 report, and the results are contained in Appendix E, Table DJ-4.

Particulate Matter Emissions:
Plant particulate matter emissions consist of particulate emissions from the boiler stacks and small point and fugitive sources. Stack particulate emission rates are determined by annual particulate matter stack tests, using EPA reference methods, multiplied by monthly boiler heat input identified in the EPA's Acid Rain Emissions data base. The results are contained in Appendix E, Table DJ-5.

Emissions from small point sources and fugitive/area sources are obtained from the annual emissions inventories for the facility. The results are contained in Appendix E, Table DJ-6.

Carbon Monoxide Emissions:
Carbon monoxide emissions have been determined by multiplying the past annual coal consumption (Appendix E, Table DJ-4) by the AP-42 emission factor for carbon monoxide emissions from coal fueled boilers. The results are contained in Appendix E, Table DJ-7.

Volatile Organic Compounds:
Volatile organic compound emissions have been determined by multiplying the past annual coal consumption (Appendix E, Table DJ-4) by the AP-42 emission factor for volatile organic compounds emissions from coal fueled boilers. The results are contained in Appendix E, Table DJ-8.

Lead Emissions:
Lead emissions have been determined from the lead concentration in the coal, the PM emission rate (Appendix E, Table DJ-5), the boiler heat input (Appendix E, Table DJ-3) and the Method specified in AP-42 for determining lead emissions from coal fueled boilers. The results are contained in Appendix E, Table DJ-9.

Fluoride Emissions:
Fluoride emissions, as hydrogen fluoride, have been determined from the historical fluorine concentration in the coal, the past actual tons of coal burned (Appendix E, Table DJ-4) and the Method specified in AP-42 for determining fluoride emissions from coal fueled boilers. The results are contained in Appendix E, Table DJ-10.

Sulfuric Acid Mist Emissions:
Sulfuric acid mist emissions are calculated using past SO2 emissions (Appendix E, Table DJ-1) and Electric Power Research Institute's "*Estimating Total Sulfuric Acid Emissions from Stationary Power Plants*, Technical Update, April 2007." The results are contained in Appendix E, Table DJ-11.

Table 4-1 Summary of Baseline Actual Emissions

Dave Johnston	SO_2 tons/yr	NO_X tons/yr	PM tons/yr	VOC tons/yr	CO tons/yr	H_2SO_4 tons/yr	Lead tons/yr	Fluorides tons/yr
Stack Emissions	21,956	15,838	2,049	121	1,008	21.8	0.32	81.0
Non-stack Emissions[1]	-	-	310	-	-	-	-	-
Baseline Actual Emissions	21,969	15,838	2,359	121	1,008	21.8	0.32	81.0

[1]Maximum past non-stack PM emissions from 2002-2006 emissions inventories

4.3 Method for Determining Projected Actual Emissions for Prevention of Significant Deterioration Pollutants

The next step in evaluating projected actual emission increases is to determine the projected actual emissions for each pollutant. This is accomplished by determining the projected actual emissions based on coal quality, unit utilization, addition of pollution controls and expected emission rates.

Projected actual emissions are defined as follows:

> 40 CFR 52.21(b)(41)(i) *Projected actual emissions* means the maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source.
>
> (ii) In determining the projected actual emissions under paragraph (b)(41)(i) of this section (before beginning actual construction), the owner or operator of the major stationary source:
>
> (*a*) Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans under the approved State Implementation Plan; and
>
> (*b*) Shall include fugitive emissions to the extent quantifiable and emissions associated with startups, shutdowns, and malfunctions; and

(*c*) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions under paragraph (b)(48) of this section and that are also unrelated to the particular project, including any increased utilization due to product demand growth; or

(*d*) In lieu of using the method set out in paragraphs (a)(41)(ii)(a) through (c) of this section, may elect to use the emissions unit's potential to emit, in tons per year, as defined under paragraph (b)(4) of this section.

PacifiCorp has proposed to accept plantwide applicability limits for SO_2 and NO_X which are based on the Dave Johnston facility's past actual baseline emissions. With these caps in place there is no potential that future emissions will be greater than past actual emissions, and no additional evaluation of future emissions is required.

4.3.1 Projected Actual Emissions for Particulate Matter, Carbon Monoxide, Ozone (as volatile organic compounds), Lead and Fluorides (as hydrogen fluoride), and Sulfuric Acid Mist

Under the provisions of 40 CFR 52.21(b)(41)(ii)(d) PacifiCorp has elected to determine the future emissions of PM, CO, VOCs, lead, fluoride, and sulfuric acid mist based on the facility's potential to emit these pollutants. In order to determine the projected actual emissions, the baseline actual emissions are adjusted to reflect operation at 100% capacity and 8,760 operating hours per year. Emissions of CO, VOCs, lead and fluorides are determined by multiplying the annual coal consumption or heat input by EPA determined emission factors as specified in EPA's "*Clearinghouse for Inventories & Emissions Factors*."

Heat Input and Coal Burned Data:
The potential heat input to the boilers and potential coal burn are determined by adjusting the past heat input and coal consumption to reflect operation at 100 percent capacity factor. The projected actual heat input and coal consumption values are used to calculate PM, CO, VOCs, fluorides, lead, and sulfuric acid mist emissions. The results are contained in Appendix E, Table DJ-6 (Heat Input) and Table DJ-7 (Coal Consumed).

Particulate Matter Emissions:
Projected actual particulate matter emissions determination:

<u>Unit 1 and 2:</u>

Projected actual particulate matter stack emissions for Units 1 and 2 are obtained by multiplying the unit-specific maximum hourly heat input values adjusted for 100% capacity factor (Appendix E, Table DJ-12) by the maximum unit-specific particulate matter emission rates determined from test results (Appendix E, Table DJ-14) and by a total annual operating time of 8,760 hours per year. The results are contained in Appendix E, Table DJ-14.

Unit 3 and 4:

Projected actual particulate matter stack emissions for Units 3 and 4 are obtained by multiplying the maximum hourly heat input values by a 0.015 lb/mmBtu PM emission factor by a total annual operating time of 8,760 hours per year. The results are contained in Appendix E, Table DJ-14.

The Projected actual non-stack emissions are evaluated at the maximum past actual non-stack emission rate identified in Appendix D, Table DJ-6. The future stack, non-stack and total annual particulate matter emission values are identified in Appendix D, Table DJ-5. There may be additional emission sources at the facility following the pollution control equipment installation, including potential scrubber reagent baghouses, etc.

Carbon Monoxide Emissions:

Projected actual emissions of carbon monoxide determination:

Unit 1 and 2:

Projected actual carbon monoxide emissions for Units 1 and 2 are obtained by multiplying the projected actual coal consumption (Appendix E, Table DJ-13) by the AP-42 emission factor for carbon monoxide. The results are contained in Appendix E, Table DJ-7.

Unit 3 and 4:

Projected actual carbon monoxide emissions for Units 3 and 4 are obtained by multiplying the maximum hourly heat input values by a 0.25 lb/mmBtu (Unit 3) or 0.20 lb/mmBtu (Unit 4) emission factor by a total annual operating time of 8,760 hours per year. The results are contained in Appendix E, Table DJ-7.

Volatile Organic Compounds:

Projected actual emissions of volatile organic compounds are determined by multiplying the projected annual coal consumption (Appendix E, Table DJ-13) by the AP-42 emission factor for volatile organic compound emissions from coal fueled boilers. The results are contained in Appendix E, Table DJ-8.

Lead Emissions:

Projected actual emissions of lead emissions determination:

Unit 1 and 2:

Projected actual emissions of lead determined using the method specified in AP-42 for coal fueled boilers. Multiplying the historical lead concentration in the coal by the maximum unit-specific particulate matter emission rates determined from test results (Appendix E, Table DJ-14), and by the 100% capacity factor heat input adjusted to the projected annual coal consumption (Appendix E, Table DJ-12). The results are contained in Appendix E, Table DJ-9.

Unit 3 and 4:

Projected actual emissions of lead determined using the method specified in AP-42 for coal fueled boilers. The method includes multiplying the historical lead concentration in the coal by the specific particulate matter emission rates, and by the maximum hourly heat input. The results are contained in Appendix E, Table DJ-9.

Fluoride Emissions:
Projected actual emissions of fluoride, as hydrogen fluoride, are determined from the historical fluorine concentration in the coal, the projected annual coal consumption (Appendix E, DJ-13), and the Method specified in AP-42 for determining fluoride emissions from coal fueled boilers. The results are contained in Appendix E, Table DJ-16.

Sulfuric Acid Mist Emissions:
Projected actual sulfuric acid mist emissions are calculated using Electric Power Research Institute's "*Estimating Total Sulfuric Acid Emissions from Stationary Power Plants*, Technical Update, April 2007."

Unit 1 and 2:

Projected actual emissions for Units 1 and 2 are obtained by using the past CEM-SO_2 emissions adjusted for 100% capacity factor (Appendix E, Table DJ-17). The results are contained in Appendix E, Table DJ-11.

Unit 3 and 4:

Projected actual emissions for Units 3 and 4 are obtained by using the projected annual coal consumption (Appendix E, Table DJ-13) and the maximum annual weight percent of sulfur in coal (Appendix E, Table DJ-11). The results are contained in Appendix E, Table DJ-11.

Identifying Emissions that "could have been accommodated" Prior to the Change:
The preamble to the Federal Register / Vol. 67, No. 251 / Tuesday, December 31, 2002 / Rules and Regulations page 80194 states, "If you are an existing emissions unit (including EUSGUs) you will estimate post-change emissions (projected actual emissions), in tons per year, to reflect any increase in annual emissions that may result from the proposed change. You should exclude, in calculating any increase in emissions that results from the project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the baseline period and that is also unrelated to the particular project, including any increased utilization due to product demand growth."

Demand Growth Adjustment (Equivalent Availability Adjustment):
In the electric utility industry, data is regularly collected and reported to the National Electric Reliability Council (NERC) that is useful in making this calculation. The two values that are of interest for determining the load a unit could have accommodated are the unit's capacity factor and equivalent availability. The unit's capacity factor represents the unit's actual output as a percent of what its output would have been if the unit had operated at 100% of its capacity over the period being evaluated. The equivalent availability represents what the output of the unit could have provided if there had been demand for the unit's output.

To make the adjustment to account for demand growth, a ratio is created by dividing the equivalent availability by the capacity factor. The baseline actual emissions are then multiplied by the results of this calculation to determine what the actual emissions would have been if the unit had been fully utilized during this time period [40 CFR 52.41(ii)(c)(xii)(A) and 40 CFR

51.165(a)(xxviii)(A), WAQSR Chapter 6, Section 4]. The difference is then taken to identify the additional emissions associated with the demand growth that "could have been accommodated".

Table 4-2 Summary of Projected Actual Emissions

	PM tons/yr	VOC tons/yr	CO tons/yr	H_2SO_4 tons/yr	Lead tons/yr	Fluorides tons/yr
Baseline Actual Emissions (Not-Including Non-Stack Sources)	2,049	121	1,008	21.8	0.32	81.0
Potential to Emit (Not Including Non-Stack Sources)[b]	2,105	125	1,042	22.6	0.33	83.9
Projected Actual Emissions (Not Including Non-Stack Sources)[b]	1,562	139	7,500	10	0.21	53.1
Capable of Accommodating Adjustment (Potential to Emit – Past Actual)	56	4	34	0.8	0.01	2.9
Projected Actual Emissions minus "what the unit was capable of accommodating"	1,506	135	7,466	9.2	0.2	50.2

4.3.2 Prevention of Significant Deterioration Significance Determination

In order to determine if a Prevention of Significant Deterioration significance level has been reached the past actual baseline emissions adjusted for demand growth for each pollutant is subtracted from the projected annual emissions. If a significance level has been exceeded for a pollutant then a Prevention of Significant Deterioration review must be done for that pollutant.

As noted in Section 1.0, PacifiCorp intends to limit annual emissions of SO_2 and NO_X to the historical emissions as defined by the "past actual to future potential actual" emissions test specified in the December 2002 revisions to the New Source Review rules. PacifiCorp is requesting a Plantwide Applicability Limitation (PAL) for SO_2 and NO_X for the plant [40 CFR 52.21(aa) and WAQSR Chapter 6, Section 4]. These plantwide annual emissions limits will be imposed to assure, through federal enforceability, that the future Potential to Emit for the plant, as a whole, will be no greater than historical emissions. Therefore, there will be no net emissions increase of sulfur dioxide or nitrogen oxides as defined as "significant" [40 CFR 52.21(b)(23)] with respect to PSD review of these pollutants under the provisions of a PSD "major modification" [40 CFR 52.21(b)(2)(i)]. PSD review will apply to the other regulated pollutants for which there is a net increase defined as significant [40 CFR 52.21(b)(23)].

In order to determine if a Prevention of Significant Deterioration significance level has been reached the past actual baseline emissions adjusted for demand growth for each pollutant is subtracted from the projected annual emissions. If a significance level has been exceeded for a pollutant then a Prevention of Significant Deterioration review must be performed for that pollutant.

4.3.3 Contemporaneous Period and Pre-Project Actual Emissions

4.3.3.1 Definition of a "Major Modification"

An existing major source is subject to Prevention of Significant Deterioration review only if it undertakes a "major modification" [40 CFR 52.21(b)(2)(i)] and WAQSR Chapter 6, Section 2]. "Major modification" is defined as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under Clean Air Act". [40 CFR 52.21(b)(23) and WAQSR Chapter 6, Section 2]. A major modification does not include: routine maintenance, repair and replacement [40 CFR 52.21(b)(2)(iii)(a) and WAQSR Chapter 6, Section 2] or an increase in the hours of operation or in the production rate [40 CFR 52.21(b)(2)(iii)(f) and WAQSR Chapter 6, Section 2].

To determine if a Prevention of Significant Deterioration significance level has been reached the baseline actual emissions are subtracted from the projected actual emissions. The results of this evaluation for each pollutant are shown in Table 4-3.

Table 4-3 Evaluation of significance levels by pollutant

	Projected Actual minus Baseline Actual tons/year	PSD Review Significance Level tons/year	Emission Increase Greater than Significance Level
CO	6492	100	**Yes**
Ozone (as VOC)	18	40	No
Particulate Matter	- 487	25	No
Fluoride (as HF)	- 27.9	3	No
Lead	- 0.11	0.6	No
Sulfuric acid mist	- 11.8	7	No

4.3.3.2 Projects are a Major Modification Only for Carbon Monoxide

Although the proposed projects may constitute a physical change at the plant, they will **not** result in significant net emissions increases of lead, particulate matter, non-methane volatile organic compounds, sulfuric acid mist, or fluorides, and therefore are not major modifications for these pollutants. The results of the emissions evaluation indicate that future potential emissions of CO may increase above the PSD significance level.

4.4 Requested Emission Rate Limits

The following emission rates are requested for Unit 3:

Particulate matter ≤ 10 microns (filterable):

- 42 lb/hr, annual average (2,800 MMBtu/hr x 0.015 lb/ MMBtu)

This limit will go into effect after the flue gas desulfurization system has been completed and deemed commercial. The expected commercial date is September 2010. After successful testing the equipment will be deemed commercial

Sulfur dioxide:

- 0.15 lb/MMBtu, annual average
- 420 lb/hr, 24-hr average (2,800 MMBtu/hr x 0.15 lb/ MMBtu)
- 1.2 lb/MMBtu, 2-hr average

This limit will go into effect after the flue gas desulfurization system has been completed and deemed commercial. The expected commercial date is September 2010. After successful testing the equipment will be deemed commercial

Nitrogen oxides:

- 0.28 lb/MMBtu, annual average

This limit will go into effect after the low NO_X burners have been installed, tested and deemed commercial. The expected installation date is May 2010, with performance testing to be completed by September of 2010. After successful testing the equipment will be deemed commercial.

Carbon monoxide:

- 0.25 lb/MMBtu, 30 day average

This limit will go into effect after the low NO_X burners have been installed, tested and deemed commercial. The expected installation date is May 2010, with performance testing to be completed by September of 2010. After successful testing the equipment will be deemed commercial.

The following emission rate is requested for Unit 4:

Particulate matter ≤ 10 microns (filterable):

- 71 lb/hr, annual average (4,700 MMBtu/hr x 0.015 lb/ MMBtu)

This limit will go into effect after the flue gas desulfurization system has been completed and deemed commercial. The expected commercial date is September 2010. After successful testing the equipment will be deemed commercial

Sulfur dioxide:

- 0.15 lb/MMBtu, annual average
- 705 lb/hr, 24-hr average (4,700 MMBtu/hr x 0.15 lb/ MMBtu)
- 1.2 lb/MMBtu, 3-hr average

This limit will go into effect after the flue gas desulfurization system has been completed and deemed commercial. The expected commercial date is September 2012. After successful testing the equipment will be deemed commercial

Nitrogen oxides:

- 0.17 lb/MMBtu, annual average

This limit will go into effect after the low NO_X burners have been installed, tested, and deemed commercial. The expected installation date is September 2009 with performance testing to be completed by September 2009. After successful testing the equipment will be deemed commercial.

Carbon monoxide:

- 0.20 lb/MMBtu, 30-day average

This limit will go into effect after the low NO_X burners have been installed, tested, and deemed commercial. The expected installation date is September 2009 with performance testing to be completed by September 2009. After successful testing the equipment will be deemed commercial.

The following federally enforceable annual plantwide emission limits are requested for SO_2 and NO_X. These limits are based the highest 24 consecutive month average in the previous 60 month period plus the prevention of significant deterioration threshold.

Sulfur Dioxide: 22,009 tons/year annual plantwide emission limit

Nitrogen Oxides: 15,878 tons/year annual plantwide emission limit

5.0 Description of Pollution Control Equipment

5.1 Sulfur Dioxide

5.1.1 Unit 3 - Flue Gas Desulfurization (FGD)

Dave Johnston unit 3 is currently uncontrolled for sulfur dioxide. A new dry flue gas desulfurization system utilizing lime as a reagent is anticipated to remove approximately 80 percent of the inlet sulfur dioxide concentration. Flue gas is treated in a spray dryer absorber (SDA) by mixing the gas stream concurrently with atomized lime slurry droplets. The lime slurry is atomized through rotary cup spray atomizers or through dual fluid nozzles. Some of the water in the spray droplets evaporates, cooling the gas at the inlet from temperatures ranging from approximately 300-350ºF to an outlet temperature ranging from 160-180ºF, depending on the relationship between approach to saturation and removal efficiency. The droplets absorb SO_2 from the gas and react with the lime in the slurry. The desulfurized flue gas, along with reaction products, non-reacted lime, and fly ash, flow out of the dry scrubber to the electrostatic precipitator. The removal efficiency of the spray dryer is limited by the need to maintain flue gas exit temperatures above the acid dew point to prevent condensation of sulfuric acid in the fabric filter baghouse. A portion of the desulfurization system waste product is recycled back to the process to increase efficiency and minimize reagent use.

5.1.2 Unit 4 - Flue Gas Desulfurization (FGD)

Dave Johnston unit 4 is currently equipped with a CHEMICO wet venture particulate scrubber modified with the lime injection for sulfur dioxide control. A new dry flue gas desulfurization system utilizing lime as a reagent is anticipated to remove approximately 80 percent of the inlet sulfur dioxide concentration. Flue gas is treated in a spray dryer absorber (SDA) by mixing the gas stream concurrently with atomized lime slurry droplets. The lime slurry is atomized through rotary cup spray atomizers or through dual fluid nozzles. Some of the water in the spray droplets evaporates, cooling the gas at the inlet from temperatures ranging from approximately 300-350ºF to an outlet temperature ranging from 160-180ºF, depending on the relationship between approach to saturation and removal efficiency. The droplets absorb SO_2 from the gas and react with the lime in the slurry. The desulfurized flue gas, along with reaction products, non-reacted lime, and fly ash, flow out of the dry scrubber to the electrostatic precipitator. The removal efficiency of the spray dryer is limited by the need to maintain flue gas exit temperatures above the acid dew point to prevent condensation of sulfuric acid in the fabric filter baghouse. A portion of the desulfurization system waste product is recycled back to the process to increase efficiency and minimize reagent use.

5.2 Nitrogen Oxides

5.2.1 Unit 3 Low NOX Burners

Dave Johnston unit 3 has a Babcock & Wilcox cell-fired boiler that utilizes a non-typical three-cell burner configuration. The existing burners will be replaced with low NO_X burners and overfire air or a booster overfire air (BOFA) system. The final design of the low NO_X burners remains to be determined.

5.2.2 Unit 4 Low NOX Burners

Unit 4 has a dry-bottom, tangentially-fired Combustion Engineering (CE) boiler. PacifiCorp is proposing to install an Alstom LNCFS Level II low-NO_X firing system with one elevation of separated overfire air. The new low NO_X burners that will be installed are state-of-the-art burners offered by Alstom that will be installed in modified windboxes and include one elevation of separated overfire air ports.

5.3 Particulate Matter

5.3.1 Units 3 - Baghouse

PacifiCorp is proposing to install a fabric filter dust collector with multiple compartments. The filter dust collector will be designed for on-line cleaning of the filter bags. In addition, individual compartments can be removed from service to facilitate maintenance while remaining compartments remain in service.

5.3.2 Units 4 - Baghouse

PacifiCorp is proposing to install a fabric filter dust collector with multiple compartments. The filter dust collector will be designed for on-line cleaning of the filter bags. In addition, individual compartments can be removed from service to facilitate maintenance while remaining compartments remain in service.

5.4 Carbon Monoxide and Volatile Organic Compounds

Carbon monoxide (CO) and non-methane volatile organic compounds (VOCs) are formed from the incomplete combustion of the coal in the boiler. The formation of CO and VOCs is limited by controlling the combustion of the fuel and providing adequate oxygen for complete combustion. However, emissions of CO and VOCs may be increased with the installation of combustion modifications to reduce NO_X emissions (low NO_X burners). In order to reduce the formation of thermal NO_X in the combustion process, low NO_X burners rely on a staged combustion of the fuel. This may lead to a slight increase of CO under some boiler operating conditions. Good combustion control and tuning to reduce NO_X emissions while minimizing CO emissions are the techniques to be used to limit CO and VOC emissions.

6.0 Best Available Control Technology Determination

The Clean Air Act's PSD program provides that a Best Available Control Technology analysis must be conducted if a proposed project will result in a significant increase of a PSD pollutant.

6.1 Applicability

PacifiCorp has determined that the projects proposed for the Dave Johnston facility may result in a significant increase (as determined by the thresholds established in the regulations) of CO and sulfuric acid mist. Therefore, PacifiCorp has conducted a Best Available Control Technology analysis for CO and sulfuric acid mist.

The EPA has developed a process for conducting Best Available Control Technology analyses. This method is referred to as the "top-down" method. The steps to conducting a "top-down" analysis are listed in Environmental Protection Agency's *New Source Review Workshop Manual"* Draft, October 1990. The steps are:

- Step 1 – Identify All Control Technologies
- Step 2 – Eliminate Technically Infeasible Options
- Step 3 – Rank Remaining Control Technologies by Control Effectiveness
- Step 4 – Evaluate Most Effective Controls and Document Results
- Step 5 – Select Best Available Control Technology

6.1.1 Carbon Monoxide Best Available Control Technology Analysis

Combustion controls designed to reduce NO_X emissions may increase carbon monoxide by creating oxygen deficient combustions zones in the boiler. These controls are balanced to provide the maximum NO_X reduction while minimizing carbon monoxide emission increases.

6.1.1.1 Step 1 - Identify All Control Technologies

Only two control technologies have been identified for control of carbon monoxide.

- Catalytic oxidation
- Combustion controls

The catalytic oxidation is a post-combustion control device that would be applied to the combustion system exhaust, while combustion controls are part of the combustion system design of the boiler.

6.1.1.2 Step 2 - Eliminate Technically Infeasible Options

Catalytic oxidation has been used to obtain the most stringent control of carbon monoxide emissions from combustion turbines firing natural gas. This alternative, however, has never been applied to a coal-fired boiler and has not been demonstrated to be a practical technology in this application.

For sulfur-containing fuels such as coal, an oxidation catalyst will convert SO_2 to SO_3, resulting in unacceptable levels of corrosion to the flue gas system as SO_3 is converted to H_2SO_4. Generally, oxidation catalysts are designed for a maximum particulate loading of 50 milligrams per cubic meter. Dave Johnston units 1, 2, 3 and 4 have particulate matter loadings upstream of their respective particulate matter control devices in excess of 5,000 milligrams per cubic meter. In addition, trace elements present in coal, particularly chlorine, are poisonous to oxidation catalysts. Catalysts have not been developed that have or can be applied to coal-fired boilers due to the high levels of particulate matter and trace elements present in the flue gas.

Although the catalyst could be installed downstream of the particulate matter pollution control devices (unit 3 electrostatic precipitator and unit 4 wet venturi scrubber), the flue gas temperature at that point will be approximately 300º F, which is well below the minimum temperature required (600ºF) for the operation of the oxidation catalyst. Utilization of a catalyst would require the flue gas to be reheated, resulting in significant negative energy and economic impacts.

For these reasons, as well as the low levels of CO in coal-fired units, no pulverized-coal-fired boilers have been equipped with oxidation catalysts. Use of an oxidation catalyst system is thus considered technically infeasible and this system cannot be considered to represent Best Available Control Technology for control of carbon monoxide.

6.1.1.3 Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Based on the Step 2 analysis, combustion control is the only remaining technology for this application.

6.1.1.4 Step 4 - Evaluate Most Effective Controls and Document Results

There are no environmental or energy costs associated with combustion controls.

6.1.1.5 Step 5 - Select Best Available Control Technology

The EPA New Source Review, RACT, BACT, LAER Clearinghouse database for comparable sources related to CO is shown in Appendix F, Table F-1. The final step in the top-down Best Available Control Technology analysis process is to select Best Available Control Technology. Based on the above analysis, good combustion control for CO is chosen as Best Available Control Technology for these projects. Because there is a balance between reducing NO_X emissions with advanced combustion controls and increasing CO emissions, i.e., the lower the NO_X emissions the greater the potential for an increase in CO emissions, an annual emission limit of 0.25 lb/MMBtu for CO is recommended for Unit 3 and a CO limit of 0.20 lb/MMBtu for Unit 4.

7.0 Regulatory Review

This section provides a regulatory review of the applicability of state and federal air quality permitting requirements for the addition of the emission controls and other plant projects.

7.1 State of Wyoming Air Permitting Requirements

The State of Wyoming has been granted authority to implement and enforce the federal Clean Air Act [pursuant to the State Implementation Plan review and approval process] and federal air permitting requirements which are embodied within the state rules. The plant is a major stationary source of air emissions, as defined within the Wyoming Air Quality Standards and Regulations, Chapter 6, Section 4, 40 CFR 70 (Title V Operating Permits) and 40 CFR Part 52.21 (Prevention of Significant Deterioration Program Requirements). The Wyoming Department of Environmental Quality, Air Quality Division, has previously issued permits and permit revisions as appropriate for the existing Plant facilities. The general requirements for permits and permit revisions are codified under the state environmental protection regulations Wyoming Air Quality Standards and Regulations.

7.1.1 Wyoming Air Quality Standards and Regulations, Chapter 6, Permitting Requirements

The replacement, addition or upgrade of existing emissions controls will result in a potential increase of some air pollutant emissions, necessitating the issuance of a Chapter 6, Section 2 construction permit from the State of Wyoming, Department of Environmental Quality. PacifiCorp is required by the Wyoming Air Quality Standards and Regulations, Chapter 6, Section 2 to submit to the Air Quality Division of the Wyoming Department of Environmental Quality an application and obtain a Chapter 6, Section 2 construction permit prior to initiation of construction activities associated with the proposed projects.

7.1.2 Operating Permit Requirements, Wyoming Air Quality Standards and Regulations Chapter 6, Section 3

The federal operating permit program (Title V) is implemented by regulations codified at 40 CFR Part 70 and 71. The State of Wyoming has been granted authority to implement and enforce the federal Title V program through state regulations outlined under Wyoming Air Quality Standards and Regulations, Chapter 6, Section 3. PacifiCorp currently has Wyoming Department of Environmental Quality issued Chapter 6, Section 3 Operating Permit 31-148 for the Dave Johnston power plant. The replacement, addition of, or upgrade to existing air emissions controls and other plant projects constitute a significant modification to the plant and will therefore require a modification of the existing Title V permit.

7.1.3 Prevention of Significant Deterioration (Prevention of Significant Deterioration) Wyoming Air Quality Standards and Regulations, Chapter 6, Section 4

Within the federal New Source Review regulations, a subset of rules, which apply to major sources and major modifications within attainment areas, is referred to as the Prevention of Significant Deterioration program. Since the planned projects are at a current PSD source, located in an area classified as attainment for all criteria pollutants, the PSD program will apply to the permitting of these projects. The Wyoming Division of Air Quality has been delegated full authority from the EPA for administering the federal PSD rules; consequently, these requirements are codified within the state's permitting rules at WAQSR Chapter 6, Section 4.

The PSD program defines a major stationary source as:

- Any source type belonging to one of the 28 listed source categories that have a potential to emit of 100 tons per year or more of any criteria pollutant regulated under the Clean Air Act, or
- Any other (non-categorical) source type with a potential to emit of 250 tons per year of any pollutant regulated under the Clean Air Act.

The Dave Johnston facility is a fossil fueled steam electric plant of more than 250 million Btu/hr heat input and is considered an existing major stationary source because of the potential to emit for sulfur dioxide, nitrogen oxides, particulate matter, carbon monoxide, volatile organic compounds, and hydrogen fluoride all exceed the limits listed in this section.

Modifications to an existing major source are considered major and subject to PSD review if the resulting potential net emissions increase is equal to or greater than the corresponding significant emissions increase threshold for each respective pollutant. A net emissions increase includes both of the following:

- The potential increase in emissions due to the modifications itself; and
- Contemporaneous net emissions increases and decreases of regulated air pollutants, under the PSD program

An emissions increase is considered significant if emissions meet or exceed any of the following rates:

- Carbon monoxide, 100 tons per year
- NO_X, 40 tons per year
- SO_2, 40 tons per year
- PM_{10}, 15 tons per year
- Particulate matter, 25 tons per year

- Ozone, 40 tons per year of VOCs
- Lead, 0.6 tons per year
- Sulfuric acid mist, 7 tons per year
- Fluorides, 3 tons per year
- Hydrogen sulfide, 10 tons per year

The basic PSD permitting requirements and conditions for issuing a construction permit that must be met for a major modification include:

- The degree of pollution control for emissions, to include fugitive emissions and fugitive dust, is at least BACT, except as otherwise provided in Chapter 6, Section 2 [WAQSR Chapter 6, Section 2(c)(v)]
- Performing ambient air quality impacts analysis – air dispersion modeling [WAQSR Chapter 6, Section 4(b)(i)(A)(I)]
- Analysis of impact to soils, vegetation, and visibility
- Analysis of Class I area impacts

The results of the PSD review for the Dave Johnston pollution control equipment projects are identified in Table 4-3. The PSD evaluation indicates that there may be a net increase of carbon monoxide emissions following completion of the planned projects. The potential carbon monoxide increase can be attributed to the units 3 and 4 low-NO_X control projects.

8.0 Appendix A

Dave Johnston Unit 1 Capital and O&M Projects

Year	Project	Description
2007	Coal load-in washdown system	Install a washdown system on the coal load-in
2007	Dust suppression for feeders 33 and 34	Install dust suppression on coal feeders 33 and 34
2007	Replace DC90 baghouse bags	Replace bags on DC90 baghouse in the coal yard
2007	CEM replacement - units 1, 2 and 3	Replace the continuous emissions monitor
2007	Mercury monitors	Install mercury monitors
2008	Replace baghouse at load-in with suppression	Replace existing baghouse at coal load-in with dust suppression
2008	Eliminate tripper deck bag house U3 and 4A	Eliminate the tripper deck baghouses U3 and 4A
2008	Remove tripper deck cyclones - 2008	Remove the tripper deck cyclones
2008	Baghouse bag changes - 2008	Replace baghouse bags
2008	Replace 36 first pass membranes	Replace 36 of the first pass membranes (water treatment)
2008	Turbine/generator major LSB	Turbine-generator overhaul
2008	Replace lower HPSH assemblies	Replace lower high pressure super heaters assemblies
2008	Waterwall inlet header tube stub replacement	Replace waterwall inlet header tube stubs
2008	Unit 1 boiler waterwall tube replacement	Replace worn and eroded waterwall tubes
2008	Burner front elbow replacement	Replace worn out coal elbows.
2008	Burner management & mft cabinets replacement	Replace relays and cabinets.
2008	Boiler asbestos replacement	Replace asbestos containing insulation on boiler.
2008	Burner nozzle replacement	Replace worn out coal burner nozzles.
2008	FD/ID fan damper drive replacement	Replace old worn out damper drives.
2008	Replace coal sweeps	Replace coal piping.
2008	Replace bottom ash hopper	Replace worn out bottom ash hopper.
2008	Replace duct expansion joints	Replace worn out expansion joints.
2008	Replace feedwater heater controls	Replace old outdated feedwater controls.
2008	Unit 1 tripper transfer point passive dust control	Install tripper transfer point passive dust control
2008	Unit 1 - replace flyash unloaders	Replace flyash unloaders
2008	CO monitor	Install a carbon monoxide monitor

Year	Project	Description
2008	Coal feeder and VFD upgrade	Upgrade existing coal feeders and variable frequency drives
2008	Combustion optimization projects	Boiler combustion optimization projects
2008	Air heater seals replacement	Replace air preheater seals
2008	Replace precipitator avc controls	Replace automatic voltage controllers.
2008	Replace pulverizer hot air dampers	Replace pulverizer hot air dampers.
2008	Secondary superheater pendant replacement	Replace boiler superheater tubing.
2008	Turbine instrumentation upgrade	Replace existing turbine instruments with new technology.
2009	Remove tripper deck cyclones - 2009	Remove the tripper deck cyclones
2009	Baghouse bag changes - 2009	Baghouse bag replacement
2012	Boiler overhaul modifications	Standard repairs/replacements conducted during 30-day overhaul.
2012	HMI conversion	Replace plant data control system with new technology.
2012	Replace air heater baskets	Replace worn out air heater components.
2012	Replace reheater header & terminal tubes	Replace worn out boiler tube components.
2012	Replace battery bank/inverter	Replace emergency backup DC power source.

9.0 Appendix B

Dave Johnston Unit 2 Capital and O&M Projects

Year	Project	Description
2007	Replace reheater attemperator	Replace reheat attemperator
2007	Combustion optimization projects	Boiler combustion optimization projects
2007	Replace partial assemblies in reheater	Replace worn and eroded tube assemblies in the reheater
2007	Replace air heater baskets and sootblowers	Replace worn air preheater baskets and air preheater sootblowers
2007	Burner ignitor replacement	Replace existing burner igniters
2007	Replace waterwall inlet header tube stubs	Replace waterwall inlet header tube tubes
2007	Replace boiler expansion joints	Replace boiler expansion joints
2007	#2 low pressure feedwater heater	Replace the #2 low pressure feedwater heater
2007	#2 high pressure feedwater heater	Replace the #2 high pressure feedwater heater
2007	Replace sootblowers	Replace sootblowers
2007	Burner nozzle replacement	Replace coal burner nozzles
2007	Radial and circumferential. Seal replacement	Replace radial and circumferential seals on the air preheater
2007	Replace air heater seals	Replace air preheater seals
2008	U2 turbine-generator refurbishment	Inspect and repair unit 2 turbine components.
2008	Burner front elbow replacement	Replace worn out coal pipe components.
2008	Generator field refurbishment	Repair generator field.
2008	Bentley critical equipment monitoring	Replace critical equipment instrumentation.
2008	Burner management & mft cabinets replacement	Replace relays and cabinets.
2008	Replace airheater pin racks	Replace worn out pin rack.
2009	Control room HVAC replacement	Replace worn out control room HVAC equipment.
2010	Clean air - NOX	Investigate and install low NOx modifications.
2011	Annunciator replacement	Replace old worn out annunciator panel.
2011	Boiler overhaul modifications	Standard repairs/replacements conducted during 30-day overhaul.
2011	Boiler water wall tube replacement	Replace worn out boiler tubing.
2011	Coal feeder replacement	Replace coal feeders with new style.
2011	HMI conversion	Replace plant data control system with new technology.
2011	Replace high pressure superheater assemblies	Replace both upper and lower worn out tube assemblies in the boiler.

Year	Project	Description
2011	Replace twips/feedwater level controls	Replace turbine protection equipment.
2011	Secondary superheater pendant replacement	Replace boiler superheater tubing.
2012	2.3 kv switch gear metering/project	Replace electrical metering equipment.
2012	Boiler asbestos abatement - 2012	Replace asbestos containing insulation on boiler.
2012	CO monitor	Install a new CO monitor on the boiler outlet.
2012	Dcs component replacement	Replace worn out components on the Data Control System.
2012	FD/ID fan damper drive replacement	Replace old worn out damper drives.
2012	Main transformer fire protection replacement	Install new fire protection equipment on the main transformer.
2012	Replace air heater seals	Replace the worn out air heater seals.
2012	Replace battery bank/inverter DCS	Replace emergency backup DC power source.
2012	Replace mill damper drives	Replace worn out mill damper drives.
2012	Turbine instrument upgrade	Replace old turbine instrumentation.
2012	Replace reheater header & terminal tubes	Replace worn out boiler tube components.

10.0 Appendix C

Dave Johnston Unit 3 Capital and O&M Projects

Unit	Project	Description
2007	Replace flyash unloaders (2)	Replace two fly ash unloaders
2008	Tripper transfer point passive dust control	Install passive dust control on tripper transfer point
2009	Boiler feed pump motor replacement - 2009	Replace boiler feed pump motors
2010	Hydrogen panel replacement	Replace worn out hydrogen control panel.
2010	Boiler asbestos abatement	Replace asbestos containing insulation.
2010	C mill PA flow replace	Replace flow monitoring equipment.
2010	Generator stator rewedge	Replace wedging in generator stator.
2010	Replace twips controls	Replace turbine protection controls.
2010	Replace burner impellers	Replace coal burner impellers
2010	Air preheater seal replacement	Replace air preheater seals
2010	Boiler bifurcate tube replacement	Replace bifurcating tubes in the boiler
2010	Replace boiler/turbine controls	Replace boiler and turbine controls
2010	Economizer hoppers relocate - RES – SLC	Relocate economizer hoppers
2010	Superheat assembly/header replacement	Replace superheat tubes assembly/header
2010	Turbine/generator major - 2009	Turbine/generator overhaul
2010	Flue gas desulfurization system – spray dryer	Install a flue gas desulfurization system to remove approximately 80% of the sulfur dioxide in the flue gas
2010	Low NO_X burners	Install low NO_X burners and combustion controls to reduce NO_X emissions
2010	Replace front side slope boiler tubes	Replace front side slope boiler tubes
2010	Replace boiler expansion joints	Replace boiler expansion joints
2010	Boiler waterwall lagging supports	Replace boiler waterwall lagging supports
2010	Waterwall tube replacement	Replace worn and eroded waterwall tubes
2010	Replace superheater tubing	Replace superheat tubes
2010	Bottom ash hopper rebuild – 2010	Rebuild bottom ash hopper
2010	Install economizer dry flight conveyor system	Install economizer dry flight ash conveyor system
2010	Replace superheater attemperator	Replace the superheater attemperator
2010	CO monitor	Install carbon monoxide monitor
2010	Main transformer fire protection replacement	Replace fire protection system on main transformer
2010	Replace safety valves - 2009	Replace safety valves on boiler

11.0 Appendix D

Dave Johnston Unit 4 Capital and O&M Projects

Unit	Project	Description
2009	Low NO_X burners	Install low NO_X burners and combustion controls to reduce NO_X emissions
2009	Replace unit 4 controls	Replace boiler controls
2009	Replace low pressure feedwater heater	Replace low pressure feedwater heater
2009	Replace low pressure feedwater heater tube bundle	Replace low pressure feedwater heater tube bundle
2009	Replace air heater baskets	Replace air preheater baskets
2009	Airheater sootblowers	Replace air preheater sootblowers
2009	Replace ignitors	Replace boiler igniters
2009	Boiler waterwall tube panel replacement	Replace waterwall tube panels
2009	Replace boiler coutant slope	Replace boiler coutant slope (waterwall)
2009	Replace remaining 98 horizontal superheater assemblies	Replace remaining 98 horizontal superheater assemblies
2009	Replace reheater	Replace reheater
2009	High pressure/intermediate pressure turbine	High pressure/intermediate pressure turbine overhaul
2009	Replace finishing superheat dissimilar metal welds in penthouse	Replace finishing superheater dissimilar metal welds in penthouse
2009	Replace IK sootblowers	Replace 1k sootblowers
2009	Water wall burner crotch tube replacement	Replace waterwall burner crotch tubes
2008	Reheat outlet header tube stub replacement	Replace reheater outlet header tube stubs
2007	CEM replacement	Replace the continuous emissions monitor
2009	Drag chain rebuild	Rebuild the existing drag chain conveyor
2009	Replace reheater loops 4-8	Replace reheater loops
2008	Tripper transfer point passive dust control	Install passive dust control on tripper transfer point
2009	Cooling tower rebuild	Rebuild Unit 4 Cooling Tower.
2009	Generator field refurbishment	Repair generator field.
2012	Boiler overhaul modifications	Standard repairs/replacements conducted during 30-day overhaul.
2012	DCS modifications	Modifications to the new DCS System.
2012	Platen secondary superheater replacement	Replace superheater tubing.
2012	Replace boiler upper arch tubes	Replace boiler upper arch area tubes.
2012	Replace reheater & 1 superheater	Replacement of two attemperators.

Unit	Project	Description
	attemperators	
2012	Boiler waterwall tube panel replacement	Replace waterwall tube panels
2012	Replace air heater seals	Replace the worn out seals in the air heater.
2012	Replace burner nozzles	Replace worn out burner nozzles.
2012	Replace finishing superheat dissimilar metal welds in penthouse	Replace finishing superheater dissimilar metal welds in penthouse
2012	Replace PRV	Replace the Pressure Reducing Valve,
2012	Replace safety valve	Replace worn out safety valves.
2012	Replace slag screen	Replace worn out slag screen.
2012	Replace boiler upper arch refractory	Replace worn out refractory on upper arch.

12.0 Appendix E

Emissions Calculations

Table DJ - 1

Dave Johnston SO_2 Emissions Evaluation

PAST ACTUAL MONTHLY SO2 EMISSIONS FROM CEM - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	377	376	373	355	340	369	332	339	327	281	296	215	16	277	270	289	308	323	255	263	158	233	238
Dave Johnston 2	362	414	421	427	376	391	356	372	365	354	298	283	232	248	224	278	291	304	164	276	257	245	247
Dave Johnston 3	588	612	584	562	491	311	347	326	772	755	722	742	761	748	776	756	656	414	680	697	775	652	745
Dave Johnston 4	450	404	523	489	335	353	0	263	369	464	435	476	419	399	385	403	359	501	365	303	414	303	316
Dave Johnston Totals	1778	1806	1901	1833	1541	1424	1035	1300	1833	1855	1751	1716	1427	1671	1655	1725	1614	1542	1463	1539	1604	1433	1546

BASELINE ACTUAL SO2 BASED ON ROLLING 24-MONTH PERIOD - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston Totals																							

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	91.60	93.95	92.29	84.38	91.11	89.77	89.23	84.36	85.65	76.40	87.32	78.84	5.83	99.99	99.41	92.62	97.68	97.80	86.75	92.41	60.20	88.96	89.20
Dave Johnston 2	94.78	94.78	94.14	93.07	94.59	91.36	92.33	87.90	91.23	89.38	84.09	92.28	79.72	94.76	94.05	92.38	90.96	93.03	55.12	96.31	94.01	88.75	90.58
Dave Johnston 3	95.34	98.78	87.94	91.77	94.80	57.59	77.31	56.25	96.07	89.22	86.37	93.57	96.63	95.78	91.95	88.74	94.47	49.16	83.47	81.95	93.12	84.27	87.26
Dave Johnston 4	80.32	71.23	83.82	92.10	71.58	58.10	-0.27	55.90	60.72	80.43	67.90	94.44	93.23	89.00	92.83	78.96	89.19	96.56	93.55	85.16	77.37	74.63	86.70

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	95.92	97.87	96.70	88.93	98.09	92.87	94.21	89.76	90.41	81.49	92.24	83.51	7.13	99.59	98.61	92.99	99.30	99.30	89.37	95.84	64.21	94.68	94.05
Dave Johnston 2	97.91	98.21	97.62	96.97	98.07	94.77	95.87	94.95	96.37	94.76	89.72	97.14	84.35	98.12	97.93	96.91	94.83	97.64	57.34	98.94	98.29	93.75	95.90
Dave Johnston 3	95.52	98.52	90.85	94.08	95.39	62.01	77.62	57.81	98.17	93.67	90.45	96.64	98.90	98.61	95.65	92.54	97.60	51.70	85.94	85.81	97.96	89.32	92.74
Dave Johnston 4	83.61	75.41	86.86	95.18	75.54	61.00	0.00	57.79	67.00	82.49	72.62	96.27	94.29	89.84	93.67	79.92	91.15	97.59	94.70	86.54	81.23	77.45	87.81

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	1.047	1.042	1.048	1.054	1.077	1.034	1.056	1.064	1.056	1.067	1.056	1.059	1.222	0.996	0.992	1.004	1.017	1.015	1.030	1.037	1.067	1.064	1.054
Dave Johnston 2	1.033	1.036	1.037	1.042	1.037	1.037	1.038	1.080	1.056	1.060	1.067	1.053	1.058	1.035	1.041	1.049	1.043	1.050	1.040	1.027	1.046	1.056	1.059
Dave Johnston 3	1.002	0.997	1.033	1.025	1.006	1.077	1.004	1.028	1.022	1.050	1.047	1.033	1.023	1.030	1.040	1.043	1.033	1.052	1.030	1.047	1.052	1.060	1.063
Dave Johnston 4	1.041	1.059	1.036	1.033	1.055	1.050	1.000	1.034	1.103	1.026	1.069	1.019	1.011	1.009	1.009	1.012	1.022	1.011	1.012	1.016	1.050	1.038	1.013

MONTHLY SO2 EMISSIONS (capable of accomodating) - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	395	392	391	374	366	382	350	361	346	300	312	228	19	275	268	290	313	328	263	273	168	248	251
Dave Johnston 2	374	429	437	445	390	406	370	402	385	376	318	298	245	257	233	291	303	320	170	283	269	259	261
Dave Johnston 3	589	611	603	576	494	335	349	335	789	793	756	766	779	770	807	789	678	435	700	729	815	691	791
Dave Johnston 4	468	427	542	505	354	370	0	272	408	476	466	485	423	402	389	408	367	506	369	308	435	314	320
Dave Johnston Totals	1,827	1,859	1,973	1,900	1,603	1,493	1,069	1,370	1,927	1,944	1,852	1,777	1,467	1,704	1,697	1,777	1,661	1,589	1,502	1,594	1,687	1,513	1,624

ANNUAL SO2 BASED ON ROLLING 24-MONTH PERIOD (capable of accomodating) - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston Totals																							

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING SO2 MINUS PAST ACTUAL SO2)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston Totals																							

Table DJ - 1

Dave Johnston SO_2 Emissions Evaluation

PAST ACTUAL MONTHLY SO2 EMISSIONS FROM CEM - TONS

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
218	257	290	262	242	293	230	285	194	341	280	256	281	308	318	326	333	323	326	345	326	322	332	313	318
202	250	252	258	231	270	245	308	294	334	312	285	267	293	299	335	314	352	316	339	322	323	348	313	336
736	787	739	645	689	801	749	0	470	710	771	637	793	702	717	733	685	735	801	690	846	735	773	724	780
326	300	362	359	433	479	130	408	444	474	542	485	542	505	582	470	505	431	432	395	445	354	456	491	435
1483	1594	1643	1523	1595	1843	1354	1000	1403	1860	1905	1662	1883	1808	1916	1864	1837	1840	1875	1768	1939	1734	1909	1841	1869

BASELINE ACTUAL SO2 BASED ON ROLLING 24-MONTH PERIOD - TONS

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
3,345	3,285	3,244	3,197	3,148	3,110	3,059	3,032	2,965	2,995	2,987	3,007	3,140	3,155	3,179	3,198	3,211	3,211	3,246	3,287	3,371	3,415	3,462	3,500	3,549
3,629	3,547	3,463	3,379	3,306	3,245	3,190	3,158	3,123	3,113	3,120	3,121	3,138	3,161	3,198	3,227	3,239	3,262	3,339	3,370	3,403	3,442	3,492	3,531	3,598
7,708	7,796	7,873	7,915	8,014	8,259	8,460	8,297	8,146	8,123	8,148	8,095	8,111	8,089	8,059	8,048	8,062	8,222	8,283	8,280	8,315	8,356	8,370	8,334	8,356
4,481	4,429	4,348	4,283	4,332	4,396	4,461	4,533	4,570	4,575	4,629	4,633	4,695	4,748	4,846	4,880	4,953	4,918	4,952	4,997	5,013	5,039	5,109	5,175	5,229
19,163	19,057	18,928	18,773	18,800	19,009	19,169	19,019	18,804	18,806	18,883	18,857	19,084	19,153	19,283	19,352	19,464	19,613	19,819	19,934	20,102	20,252	20,433	20,539	20,732

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
83.38	98.96	98.26	95.82	96.45	94.67	94.53	91.38	58.71	95.80	95.64	88.31	98.91	99.72	98.78	91.25	97.21	87.67	93.94	91.70	91.89	87.78	86.59	91.22	86.57
86.60	96.76	84.32	93.83	95.93	83.34	95.99	94.47	91.43	88.77	88.81	88.25	90.58	92.04	91.84	90.89	94.65	91.33	89.58	88.84	85.43	83.68	86.10	89.11	89.58
78.88	93.07	84.84	81.24	93.30	95.58	91.95	-0.33	59.24	80.90	90.24	75.95	99.09	95.49	97.20	97.79	95.14	86.30	91.27	74.77	88.60	80.91	88.18	88.83	93.06
91.94	98.32	83.45	86.69	96.91	88.08	24.30	85.62	93.60	92.19	93.38	84.88	95.55	79.07	91.61	84.45	90.81	69.95	86.11	76.20	87.19	73.75	85.76	89.14	70.79

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
86.77	99.58	99.47	98.78	99.04	97.52	98.78	97.65	61.00	98.58	98.61	90.57	99.60	99.99	99.88	92.52	98.59	91.24	96.92	96.24	95.01	91.99	90.80	95.56	89.69
89.83	98.79	86.78	96.90	98.43	98.24	98.76	97.95	96.45	94.27	94.07	91.98	93.65	97.67	95.69	94.83	98.72	94.68	92.20	93.15	89.78	87.91	90.82	93.85	93.62
83.31	94.88	87.65	85.96	96.27	98.26	95.41	0.00	63.07	85.02	95.17	80.03	99.59	99.26	99.29	99.05	96.68	88.80	96.28	79.24	94.12	84.65	92.71	93.38	94.43
92.44	98.22	84.71	87.26	97.39	89.90	25.63	86.70	94.74	94.20	95.17	86.81	96.63	82.76	94.50	87.99	92.68	73.04	90.99	78.93	89.72	76.37	87.90	91.52	74.04

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
1.041	1.006	1.012	1.031	1.027	1.030	1.045	1.069	1.039	1.029	1.031	1.026	1.007	1.003	1.011	1.014	1.014	1.041	1.032	1.049	1.034	1.048	1.049	1.048	1.036
1.037	1.021	1.029	1.033	1.026	1.179	1.029	1.037	1.055	1.062	1.059	1.042	1.034	1.061	1.042	1.043	1.043	1.037	1.029	1.049	1.051	1.050	1.055	1.053	1.045
1.056	1.019	1.033	1.058	1.032	1.028	1.038	1.000	1.065	1.051	1.055	1.054	1.005	1.039	1.022	1.013	1.016	1.029	1.055	1.060	1.062	1.046	1.051	1.051	1.015
1.005	0.999	1.015	1.007	1.005	1.021	1.055	1.013	1.012	1.022	1.019	1.023	1.011	1.047	1.032	1.042	1.021	1.044	1.057	1.036	1.029	1.036	1.025	1.027	1.046

MONTHLY SO2 EMISSIONS (capable of accomodating) - TONS

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
227	259	294	270	248	302	241	304	201	351	289	262	282	309	321	330	338	336	336	362	337	337	349	328	329
210	256	260	266	237	318	252	319	311	355	330	297	276	311	311	349	328	365	325	355	338	339	367	330	351
777	802	764	682	711	824	778	0	500	746	814	671	797	730	733	743	696	756	845	731	898	769	812	761	791
328	300	367	361	435	489	137	413	450	484	552	496	548	528	600	490	515	450	457	409	458	367	467	504	455
1,543	1,616	1,684	1,579	1,631	1,933	1,407	1,036	1,462	1,937	1,985	1,726	1,904	1,878	1,966	1,912	1,877	1,907	1,963	1,857	2,032	1,812	1,995	1,923	1,927

ANNUAL SO2 BASED ON ROLLING 24-MONTH PERIOD (capable of accomodating) - TONS

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
3,490	3,424	3,375	3,323	3,264	3,224	3,169	3,141	3,068	3,094	3,082	3,099	3,231	3,248	3,274	3,295	3,307	3,312	3,348	3,392	3,477	3,521	3,570	3,606	3,657
3,802	3,715	3,627	3,538	3,461	3,417	3,358	3,317	3,280	3,270	3,276	3,275	3,291	3,318	3,357	3,386	3,399	3,421	3,499	3,535	3,570	3,610	3,663	3,703	3,773
8,004	8,100	8,180	8,233	8,342	8,586	8,801	8,633	8,489	8,466	8,494	8,447	8,456	8,436	8,398	8,375	8,385	8,545	8,617	8,618	8,660	8,699	8,709	8,670	8,677
4,617	4,553	4,466	4,394	4,435	4,494	4,563	4,633	4,654	4,659	4,702	4,707	4,770	4,833	4,938	4,980	5,054	5,026	5,070	5,120	5,132	5,158	5,232	5,303	5,367
19,914	19,793	19,648	19,488	19,502	19,722	19,891	19,724	19,492	19,488	19,554	19,529	19,748	19,834	19,969	20,036	20,144	20,303	20,534	20,665	20,838	20,988	21,173	21,282	21,474

DEMAND GROWTH ADJUSTMENT DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING MINUS PAST ACTUAL TONS)

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262	262
712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712

Table DJ - 1

Dave Johnston SO_2 Emissions Evaluation

PAST ACTUAL MONTHLY SO2 EMISSIONS FROM CEM - TONS

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
313	318	311	321	330	279	317	327	256	336	356	341	339
313	336	330	310	317	265	19	141	335	368	376	396	395
724	780	763	797	657	664	774	653	669	617	667	604	670
491	435	522	521	535	377	459	540	542	560	513	573	386
1841	1869	1926	1949	1839	1585	1568	1661	1803	1881	1913	1914	1790

BASELINE ACTUAL SO2 BASED ON ROLLING 24-MONTH PERIOD - TONS

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
3,500	3,549	3,576	3,591	3,626	3,644	3,657	3,705	3,691	3,762	3,770	3,800	3,842
3,531	3,598	3,638	3,667	3,696	3,713	3,588	3,536	3,550	3,586	3,607	3,649	3,704
8,334	8,356	8,344	8,373	8,379	8,367	8,353	8,305	8,640	8,713	8,691	8,608	8,624
5,175	5,229	5,340	5,420	5,508	5,480	5,470	5,675	5,742	5,800	5,820	5,835	5,786
20,539	20,732	20,898	21,051	21,209	21,204	21,067	21,221	21,622	21,861	21,888	21,892	21,956
							Maximum 12 month ave based on 24-month period					**21,956**

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capa

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
91.22	86.57	87.59	94.23	96.10	92.71	93.71	93.96	65.11	88.87	88.25	88.84	90.02
89.11	89.58	89.29	88.25	87.60	83.49	4.84	37.02	84.59	94.50	94.61	94.61	96.30
88.83	93.06	96.47	96.90	84.71	90.89	95.89	96.32	89.11	86.18	91.27	84.56	90.17
89.14	70.79	89.22	86.25	86.57	70.46	82.79	93.54	90.49	90.73	87.85	82.50	64.74

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
95.56	89.69	92.47	96.99	98.32	96.34	96.49	96.31	68.17	92.97	92.32	92.98	93.18
93.85	93.62	94.18	91.76	91.36	88.75	5.47	39.84	87.02	97.57	98.10	98.19	99.10
93.38	94.43	99.49	99.07	87.52	93.26	97.75	98.30	93.21	91.43	95.08	87.64	93.47
91.52	74.04	91.30	88.52	88.72	72.81	85.49	94.97	91.96	92.78	90.07	84.48	68.36

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
1.048	1.036	1.056	1.029	1.023	1.039	1.030	1.025	1.047	1.046	1.046	1.047	1.035
1.053	1.045	1.055	1.040	1.043	1.063	1.131	1.076	1.029	1.032	1.037	1.038	1.029
1.051	1.015	1.031	1.022	1.033	1.026	1.019	1.021	1.046	1.061	1.042	1.036	1.037
1.027	1.046	1.023	1.026	1.025	1.033	1.033	1.015	1.016	1.023	1.025	1.024	1.056

MONTHLY SO2 EMISSIONS (capable of accomodating) - TONS

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
328	329	328	330	338	290	327	335	268	352	372	357	351
330	351	348	323	330	282	21	152	345	380	390	411	406
761	791	787	815	679	682	789	667	700	654	695	626	694
504	455	534	534	548	390	474	548	551	573	526	587	408
1,923	1,927	1,997	2,002	1,896	1,643	1,610	1,702	1,865	1,959	1,984	1,981	1,859

ANNUAL SO2 BASED ON ROLLING 24-MONTH PERIOD (capable of accomodating) - TONS

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
3,606	3,657	3,692	3,710	3,745	3,765	3,778	3,825	3,807	3,883	3,893	3,927	3,972
3,703	3,773	3,819	3,851	3,883	3,905	3,757	3,707	3,720	3,755	3,772	3,812	3,867
8,670	8,677	8,669	8,695	8,693	8,678	8,661	8,605	8,955	9,032	9,007	8,913	8,925
5,303	5,367	5,484	5,567	5,661	5,639	5,631	5,836	5,906	5,967	5,988	6,005	5,961
21,282	21,474	21,665	21,823	21,982	21,987	21,826	21,974	22,388	22,636	22,660	22,658	22,724
							Maximum 12 month ave based on 24-month period					**22,724**

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING HEAT INPUT MINUS PAST ACTUAL HEAT INPUT

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
251	251	251	251	251	251	251	251	251	251	251	251	251
169	169	169	169	169	169	169	169	169	169	169	169	169
30	30	30	30	30	30	30	30	30	30	30	30	30
262	262	262	262	262	262	262	262	262	262	262	262	262
712	712	712	712	712	712	712	712	712	712	712	712	712
							Maximum 12 month ave based on 24-month period					**712**

Table DJ - 2
Dave Johnston NOx Emissions Evaluation

PAST ACTUAL MONTHLY NOx EMISSIONS FROM CEM - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	203	201	206	190	180	185	178	179	174	158	181	145	13	202	208	194	191	204	166	191	111	164	180
Dave Johnston 2	186	205	211	204	181	186	181	193	181	194	176	186	159	185	166	185	183	183	110	204	192	186	184
Dave Johnston 3	391	405	414	439	433	278	355	270	494	452	433	464	482	472	485	435	433	252	420	411	457	421	436
Dave Johnston 4	466	417	546	576	397	384	0	360	350	512	453	590	567	528	554	454	467	499	474	430	387	379	433
Dave Johnston Totals	1246	1229	1377	1409	1191	1032	714	1003	1199	1316	1243	1386	1220	1386	1413	1268	1275	1137	1169	1237	1146	1150	1234

BASELINE ACTUAL NOx BASED ON ROLLING 24-MONTH PERIOD - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston Totals																							

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	91.60	93.95	92.29	84.38	91.11	89.77	89.23	84.36	85.65	76.40	87.32	78.84	5.83	99.99	99.41	92.62	97.68	97.80	86.75	92.41	60.20	88.96	89.20
Dave Johnston 2	94.78	94.78	94.14	93.07	94.59	91.36	92.33	87.90	91.23	89.38	84.09	92.28	79.72	94.76	94.05	92.38	90.96	93.03	55.12	96.31	94.01	88.75	90.58
Dave Johnston 3	95.34	98.78	87.94	91.77	94.80	57.59	77.31	56.25	96.07	89.22	86.37	93.57	96.63	95.78	91.95	88.74	94.47	49.16	83.47	81.95	93.12	84.27	87.26
Dave Johnston 4	80.32	71.23	83.82	92.10	71.58	58.10	-0.27	55.90	60.72	80.43	67.90	94.44	93.23	89.00	92.83	78.96	89.19	96.56	93.55	85.16	77.37	74.63	86.70

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	95.92	97.87	96.70	88.93	98.09	92.87	94.21	89.76	90.41	81.49	92.24	83.51	7.13	99.59	98.61	92.99	99.30	99.30	89.37	95.84	64.21	94.68	94.05
Dave Johnston 2	97.91	98.21	97.62	96.97	98.07	94.77	95.87	94.95	96.37	94.76	89.72	97.14	84.35	98.12	97.93	96.91	94.83	97.64	57.34	98.94	98.29	93.75	95.90
Dave Johnston 3	95.52	98.52	90.85	94.08	95.39	62.01	77.62	57.81	98.17	93.67	90.45	96.64	98.90	98.61	95.65	92.54	97.60	51.70	85.94	85.81	97.96	89.32	92.74
Dave Johnston 4	83.61	75.41	86.86	95.18	75.54	61.00	0.00	57.79	67.00	82.49	72.62	96.27	94.29	89.84	93.67	79.92	91.15	97.59	94.70	86.54	81.23	77.45	87.81

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	1.047	1.042	1.048	1.054	1.077	1.034	1.056	1.064	1.056	1.067	1.056	1.059	1.222	0.996	0.992	1.004	1.017	1.015	1.030	1.037	1.067	1.064	1.054
Dave Johnston 2	1.033	1.036	1.037	1.042	1.037	1.037	1.038	1.080	1.056	1.060	1.067	1.053	1.058	1.035	1.041	1.049	1.043	1.050	1.040	1.027	1.046	1.056	1.059
Dave Johnston 3	1.002	0.997	1.033	1.025	1.006	1.077	1.004	1.028	1.022	1.050	1.047	1.033	1.023	1.030	1.040	1.043	1.033	1.052	1.030	1.047	1.052	1.060	1.063
Dave Johnston 4	1.041	1.059	1.036	1.033	1.055	1.050	1.000	1.034	1.103	1.026	1.069	1.019	1.011	1.009	1.009	1.012	1.022	1.011	1.012	1.016	1.050	1.038	1.013

MONTHLY NOx EMISSIONS (capable of accomodating) - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	212	210	215	201	194	191	188	191	183	169	191	154	16	201	207	195	195	207	171	198	118	175	190
Dave Johnston 2	192	213	219	212	188	192	187	209	191	206	188	196	168	191	173	194	191	192	114	210	201	196	195
Dave Johnston 3	392	404	428	450	436	299	357	277	505	474	453	479	493	486	505	453	448	265	432	431	480	446	463
Dave Johnston 4	485	441	566	595	419	403	0	372	386	525	484	602	573	532	559	459	477	504	479	437	406	393	439
Dave Johnston Totals	1,281	1,268	1,428	1,458	1,237	1,086	732	1,049	1,266	1,374	1,317	1,431	1,250	1,410	1,443	1,302	1,311	1,168	1,197	1,276	1,205	1,210	1,287

ANNUAL NOx BASED ON ROLLING 24-MONTH PERIOD (capable of accomodating) - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston Totals																							

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING NOx MINUS PAST ACTUAL NOx)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																						
Dave Johnston Totals																							

Table DJ - 2
Dave Johnston NOx Emissions Evaluation

PAST ACTUAL MONTHLY NOx EMISSIONS FROM CEM - TONS

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06
150	191	209	207	177	195	181	181	119	197	177	167	217	208	218	204	190	198	208	215	198	201	201	203
161	198	172	198	167	177	185	195	171	204	207	196	203	185	203	207	191	209	196	207	191	204	205	201
377	454	415	392	412	479	448	0	298	410	466	354	487	429	428	458	410	419	455	385	428	414	474	441
473	491	434	462	466	472	129	424	476	522	493	449	585	500	607	566	547	469	535	482	507	449	508	543
1162	1334	1229	1259	1222	1322	942	801	1063	1333	1343	1167	1491	1322	1455	1434	1338	1296	1394	1289	1324	1268	1388	1389

BASELINE ACTUAL NOx BASED ON ROLLING 24-MONTH PERIOD - TONS

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06
2,056	2,051	2,053	2,061	2,060	2,065	2,066	2,067	2,040	2,059	2,057	2,068	2,170	2,174	2,178	2,183	2,182	2,180	2,201	2,213	2,256	2,275	2,285	2,307
2,183	2,179	2,160	2,157	2,150	2,145	2,147	2,148	2,143	2,148	2,163	2,168	2,190	2,190	2,209	2,220	2,224	2,237	2,280	2,281	2,281	2,290	2,300	2,316
4,970	4,994	4,994	4,971	4,960	5,060	5,107	4,972	4,874	4,853	4,870	4,815	4,817	4,796	4,767	4,778	4,767	4,850	4,868	4,855	4,840	4,837	4,856	4,866
5,363	5,400	5,344	5,287	5,321	5,365	5,429	5,461	5,524	5,529	5,549	5,478	5,487	5,473	5,500	5,556	5,596	5,582	5,612	5,639	5,699	5,734	5,771	5,794
14,571	14,624	14,550	14,475	14,490	14,635	14,750	14,649	14,581	14,589	14,639	14,529	14,665	14,633	14,654	14,738	14,769	14,848	14,961	14,987	15,076	15,135	15,213	15,283

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06
83.38	98.96	98.26	95.82	96.45	94.67	94.53	91.38	58.71	95.80	95.64	88.31	98.91	99.72	98.78	91.25	97.21	87.67	93.94	91.70	91.89	87.78	86.59	91.22
86.60	96.76	84.32	93.83	95.93	83.34	95.99	94.47	91.43	88.77	88.81	88.25	90.58	92.04	91.84	90.89	94.65	91.33	89.58	88.84	85.43	83.68	86.10	89.11
78.88	93.07	84.84	81.24	93.30	95.58	91.95	-0.33	59.24	80.90	90.24	75.95	99.09	95.49	97.20	97.79	95.14	86.30	91.27	74.77	88.60	80.91	88.18	88.83
91.94	98.32	83.45	86.69	96.91	88.08	24.30	85.62	93.60	92.19	93.38	84.88	95.55	79.07	91.61	84.45	90.81	69.95	86.11	76.20	87.19	73.75	85.76	89.14

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06
86.77	99.58	99.47	98.78	99.04	97.52	98.78	97.65	61.00	98.58	98.61	90.57	99.60	99.99	99.88	92.52	98.59	91.24	96.92	96.24	95.01	91.99	90.80	95.56
89.83	98.79	86.78	96.90	98.43	98.24	98.76	97.95	96.45	94.27	94.07	91.98	93.65	97.67	95.69	94.83	98.72	94.68	92.20	93.15	89.78	87.91	90.82	93.85
83.31	94.88	87.65	85.96	96.27	98.26	95.41	0.00	63.07	85.02	95.17	80.03	99.59	99.26	99.29	99.05	96.68	88.80	96.28	79.24	94.12	84.65	92.71	93.38
92.44	98.22	84.71	87.26	97.39	89.90	25.63	86.70	94.74	94.20	95.17	86.81	96.63	82.76	94.50	87.99	92.68	73.04	90.99	78.93	89.72	76.37	87.90	91.52

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06
1.041	1.006	1.012	1.031	1.027	1.030	1.045	1.069	1.039	1.029	1.031	1.026	1.007	1.003	1.011	1.014	1.014	1.041	1.032	1.049	1.034	1.048	1.049	1.048
1.037	1.021	1.029	1.033	1.026	1.179	1.029	1.037	1.055	1.062	1.059	1.042	1.034	1.061	1.042	1.043	1.043	1.037	1.029	1.049	1.051	1.050	1.055	1.053
1.056	1.019	1.033	1.058	1.032	1.028	1.038	1.000	1.065	1.051	1.055	1.054	1.005	1.039	1.022	1.013	1.016	1.029	1.055	1.060	1.062	1.046	1.051	1.051
1.005	0.999	1.015	1.007	1.005	1.021	1.055	1.013	1.012	1.022	1.019	1.023	1.011	1.047	1.032	1.042	1.021	1.044	1.057	1.036	1.029	1.036	1.025	1.027

MONTHLY NOx EMISSIONS (capable of accomodating) - TONS

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06
156	192	211	214	182	201	189	194	123	203	182	172	219	209	220	206	193	207	215	225	205	211	211	213
167	203	177	205	171	208	190	202	180	217	219	204	209	196	211	216	199	216	202	217	201	214	216	212
399	463	428	414	425	492	465	0	318	431	491	373	489	446	437	464	416	432	480	408	454	433	498	463
476	491	440	465	468	482	136	429	482	533	503	459	591	523	626	590	559	490	565	500	522	465	521	558
1,198	1,348	1,257	1,298	1,246	1,383	980	826	1,102	1,384	1,396	1,208	1,509	1,374	1,494	1,476	1,367	1,344	1,462	1,350	1,382	1,323	1,446	1,446

ANNUAL NOx BASED ON ROLLING 24-MONTH PERIOD (capable of accomodating) - TONS

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06
2,143	2,134	2,132	2,139	2,133	2,138	2,138	2,140	2,110	2,127	2,122	2,131	2,233	2,237	2,244	2,249	2,248	2,248	2,270	2,284	2,327	2,345	2,355	2,376
2,287	2,282	2,261	2,257	2,249	2,257	2,258	2,255	2,249	2,254	2,270	2,274	2,295	2,297	2,317	2,327	2,332	2,344	2,388	2,391	2,391	2,401	2,411	2,427
5,154	5,183	5,184	5,166	5,160	5,257	5,311	5,172	5,078	5,057	5,076	5,023	5,021	5,001	4,967	4,972	4,956	5,040	5,063	5,052	5,039	5,032	5,050	5,060
5,515	5,540	5,477	5,412	5,436	5,475	5,543	5,572	5,619	5,623	5,633	5,561	5,570	5,565	5,599	5,664	5,705	5,698	5,741	5,772	5,830	5,866	5,907	5,936
15,099	15,139	15,053	14,973	14,978	15,126	15,250	15,138	15,056	15,061	15,101	14,989	15,119	15,100	15,126	15,213	15,241	15,329	15,462	15,499	15,588	15,644	15,724	15,800

DEMAND GROWTH ADJUSTMENT DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING MINUS PAST ACTUAL TONS)

Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06
87	83	80	78	73	73	72	73	70	68	65	63	62	63	65	66	66	68	69	71	71	70	70	69
104	102	101	100	99	111	110	106	106	106	107	106	105	107	108	108	108	107	108	110	111	111	111	111
184	189	189	195	200	196	204	200	204	204	206	208	204	205	200	194	190	189	196	197	199	196	194	194
152	140	133	125	115	110	114	110	95	94	83	83	83	92	99	108	109	116	129	134	131	132	136	142
527	514	503	498	487	491	500	489	476	472	461	460	453	467	472	476	472	481	501	512	512	509	511	516

Table DJ - 2
Dave Johnston NOx Emissions Evaluation

PAST ACTUAL MONTHLY NOx EMISSIONS FROM CEM - TONS

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
203	200	189	220	220	185	212	194	147	193	191	200	194
201	205	186	203	200	167	12	77	179	206	213	213	212
441	477	489	498	423	414	479	459	447	419	446	402	415
543	465	600	606	616	464	357	361	359	317	288	288	212
1389	1346	1464	1526	1459	1230	1060	1091	1133	1135	1138	1102	1032

BASELINE ACTUAL NOx BASED ON ROLLING 24-MONTH PERIOD - TONS

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
2,307	2,332	2,331	2,337	2,343	2,347	2,356	2,362	2,345	2,382	2,379	2,391	2,404
2,316	2,338	2,332	2,347	2,348	2,349	2,266	2,212	2,204	2,222	2,226	2,229	2,237
4,866	4,915	4,933	4,975	4,990	4,991	4,992	4,997	5,221	5,281	5,299	5,267	5,297
5,794	5,790	5,845	5,931	6,008	6,006	5,949	6,065	6,032	5,953	5,836	5,733	5,614
15,283	15,375	15,440	15,589	15,689	15,694	15,562	15,636	15,802	15,838	15,740	15,620	15,553

Maximum 12 month ave based on 24-month period 15,838

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% o

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
91.22	86.57	87.59	94.23	96.10	92.71	93.71	93.96	65.11	88.87	88.25	88.84	90.02
89.11	89.58	89.29	88.25	87.60	83.49	4.84	37.02	84.59	94.50	94.61	94.61	96.30
88.83	93.06	96.47	96.90	84.71	90.89	95.89	96.32	89.11	86.18	91.27	84.56	90.17
89.14	70.79	89.22	86.25	86.57	70.46	82.79	93.54	90.49	90.73	87.85	82.50	64.74

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
95.56	89.69	92.47	96.99	98.32	96.34	96.49	96.31	68.17	92.97	92.32	92.98	93.18
93.85	93.62	94.18	91.76	91.36	88.75	5.47	39.84	87.02	97.57	98.10	98.19	99.10
93.38	94.43	99.49	99.07	87.52	93.26	97.75	98.30	93.21	91.43	95.08	87.64	93.47
91.52	74.04	91.30	88.52	88.72	72.81	85.49	94.97	91.96	92.78	90.07	84.48	68.36

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
1.048	1.036	1.056	1.029	1.023	1.039	1.030	1.025	1.047	1.046	1.046	1.047	1.035
1.053	1.045	1.055	1.040	1.043	1.063	1.131	1.076	1.029	1.032	1.037	1.038	1.029
1.051	1.015	1.031	1.022	1.033	1.026	1.019	1.021	1.046	1.061	1.042	1.036	1.037
1.027	1.046	1.023	1.026	1.025	1.033	1.033	1.015	1.016	1.023	1.025	1.024	1.056

MONTHLY NOx EMISSIONS (capable of accomodating) - TONS

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
213	207	200	227	225	192	218	198	154	202	200	209	201
212	214	196	211	209	178	13	83	184	212	221	221	218
463	484	505	509	437	425	489	468	468	444	465	416	430
558	486	614	622	631	479	368	367	364	324	295	295	223
1,446	1,391	1,514	1,568	1,502	1,274	1,088	1,116	1,171	1,183	1,181	1,141	1,072

ANNUAL NOx BASED ON ROLLING 24-MONTH PERIOD (capable of accomodating) - TONS

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
2,376	2,402	2,406	2,413	2,419	2,424	2,433	2,438	2,418	2,457	2,456	2,470	2,484
2,427	2,451	2,447	2,464	2,467	2,470	2,372	2,319	2,310	2,326	2,328	2,329	2,336
5,060	5,102	5,123	5,164	5,175	5,175	5,173	5,175	5,409	5,472	5,489	5,451	5,480
5,936	5,941	6,003	6,093	6,176	6,182	6,125	6,241	6,208	6,129	6,010	5,906	5,789
15,800	15,896	15,979	16,135	16,237	16,251	16,104	16,172	16,345	16,385	16,283	16,156	16,088

Maximum 12 month ave based on 24-month period 16,385

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING HEAT INPUT MINUS PAST ACTUAL HEA

Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
69	70	75	77	76	77	77	76	73	75	77	79	80
111	113	116	117	118	121	106	107	106	104	102	100	99
194	187	190	189	185	184	181	178	188	191	190	185	183
142	151	158	163	169	176	176	176	176	177	175	173	174
516	521	539	546	548	558	542	536	542	547	543	536	535

Maximum 12 month ave based on 24-month period 558

Table DJ - 3
Dave Johnston Heat Input Adjust for Equivalent Availability

PAST ACTUAL MONTHLY Heat Input from CEM- MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	856,431	844,024	859,980	796,191	771,495	830,992	794,081	790,058	755,565	705,789	814,907	636,508	64,361	865,233	898,989	850,065	839,265	889,113	761,050	854,608	510,887
Dave Johnston 2	795,108	865,625	896,770	893,942	822,671	876,102	850,915	870,506	818,261	865,149	824,134	852,348	727,099	807,422	780,342	853,560	805,081	847,368	490,199	891,457	830,876
Dave Johnston 3	1,804,474	1,821,648	1,715,572	1,778,662	1,644,492	1,132,635	1,422,374	1,099,774	1,822,212	1,763,400	1,701,982	1,755,382	1,852,475	1,765,454	1,792,281	1,728,809	1,704,463	983,972	1,590,540	1,621,163	1,767,719
Dave Johnston 4	2,410,268	2,165,148	2,641,791	2,893,136	2,067,922	1,900,922	0	1,718,614	1,766,980	2,387,031	2,211,376	2,809,332	2,851,882	2,595,128	2,876,375	2,518,036	2,581,635	2,869,238	2,678,826	2,500,662	2,286,693
Dave Johnston Totals	5,866,281	5,696,445	6,114,113	6,361,931	5,306,580	4,740,651	3,067,370	4,478,952	5,163,018	5,721,369	5,552,399	6,053,570	5,495,817	6,033,237	6,347,987	5,950,470	5,930,444	5,589,691	5,520,615	5,867,890	5,396,175

BASELINE ACTUAL HEAT INPUT(based on 24-Month Rolling Average) - MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston Totals																					

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	91.60	93.95	92.29	84.38	91.11	89.77	89.23	84.36	85.65	76.40	87.32	78.84	5.83	99.99	99.41	92.62	97.68	97.80	86.75	92.41	60.20
Dave Johnston 2	94.78	94.78	94.14	93.07	94.59	91.36	92.33	87.90	91.23	89.38	84.09	92.28	79.72	94.76	94.05	92.38	90.96	93.03	55.12	96.31	94.01
Dave Johnston 3	95.34	98.78	87.94	91.77	94.80	57.59	77.31	56.25	96.07	89.22	86.37	93.57	96.63	95.78	91.95	88.74	94.47	49.16	83.47	81.95	93.12
Dave Johnston 4	80.32	71.23	83.82	92.10	71.58	58.10	-0.27	55.90	60.72	80.43	67.90	94.44	93.23	89.00	92.83	78.96	89.19	96.56	93.55	85.16	77.37

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	95.92	97.87	96.70	88.93	98.09	92.87	94.21	89.76	90.41	81.49	92.24	83.51	7.13	99.59	98.61	92.99	99.30	99.30	89.37	95.84	64.21
Dave Johnston 2	97.91	98.21	97.62	96.97	98.07	94.77	95.87	94.95	96.37	94.76	89.72	97.14	84.35	98.12	97.93	96.91	94.83	97.64	57.34	98.94	98.29
Dave Johnston 3	95.52	98.52	90.85	94.08	95.39	62.01	77.62	57.81	98.17	93.67	90.45	96.64	98.90	98.61	95.65	92.54	97.60	51.70	85.94	85.81	97.96
Dave Johnston 4	83.61	75.41	86.86	95.18	75.54	61.00	0.00	57.79	67.00	82.49	72.62	96.27	94.29	89.84	93.67	79.92	91.15	97.59	94.70	86.54	81.23

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	1.047	1.042	1.048	1.054	1.077	1.034	1.056	1.064	1.056	1.067	1.056	1.059	1.222	0.996	0.992	1.004	1.017	1.015	1.030	1.037	1.067
Dave Johnston 2	1.033	1.036	1.037	1.042	1.037	1.037	1.038	1.080	1.056	1.060	1.067	1.053	1.058	1.035	1.041	1.049	1.043	1.050	1.040	1.027	1.046
Dave Johnston 3	1.002	0.997	1.033	1.025	1.006	1.077	1.004	1.028	1.022	1.050	1.047	1.033	1.023	1.030	1.040	1.043	1.033	1.052	1.030	1.047	1.052
Dave Johnston 4	1.041	1.059	1.036	1.033	1.055	1.050	1.000	1.034	1.103	1.026	1.069	1.019	1.011	1.009	1.009	1.012	1.022	1.011	1.012	1.016	1.050

MONTHLY HEAT INPUT (Capable of Accomodating)- MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	896,851	879,207	901,063	839,138	830,611	859,632	838,429	840,572	797,523	752,828	860,819	674,185	78,656	861,779	891,730	853,423	853,170	902,680	784,020	886,364	544,869
Dave Johnston 2	821,347	896,942	929,902	931,432	852,938	908,750	883,590	940,377	864,365	917,301	879,246	897,247	769,336	836,025	812,504	895,470	839,358	889,386	509,963	915,776	868,757
Dave Johnston 3	1,807,734	1,816,824	1,772,211	1,823,429	1,654,738	1,219,638	1,428,135	1,130,307	1,862,160	1,851,376	1,782,390	1,812,936	1,895,940	1,817,585	1,864,277	1,802,721	1,760,919	1,034,828	1,637,584	1,697,516	1,859,554
Dave Johnston 4	2,509,079	2,292,163	2,737,814	2,989,952	2,182,428	1,995,698	0	1,776,683	1,949,698	2,448,230	2,364,853	2,863,919	2,884,347	2,619,685	2,902,378	2,548,376	2,638,390	2,899,859	2,711,949	2,541,364	2,400,748
Dave Johnston Totals	6,035,012	5,885,136	6,340,989	6,583,951	5,520,715	4,983,719	3,150,154	4,687,939	5,473,746	5,969,735	5,887,308	6,248,287	5,628,278	6,135,074	6,470,889	6,099,990	6,091,838	5,726,754	5,643,515	6,041,020	5,673,928

ANNUAL HEAT INPUT (Capable of Accomondating) - MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston Totals																					

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING HEAT INPUT MINUS PAST ACTUAL HEAT INPUT)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston Totals																					

Table DJ - 3
Dave Johnston Heat Input Adjust for Equivalent Availability

PAST ACTUAL MONTHLY Heat Input from CEM- MMBtu

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
768,919	805,844	763,921	761,638	870,352	899,059	887,613	793,559	862,736	799,533	796,213	510,464	875,697	790,628	759,498	939,813	912,058	940,878	872,609	843,575	852,904
823,457	827,020	751,571	706,844	839,818	774,083	858,475	756,779	751,196	804,862	845,923	816,327	888,851	899,942	851,153	875,693	844,639	880,710	883,430	798,527	923,586
1,700,796	1,747,452	1,764,582	1,575,157	1,727,127	1,623,855	1,563,409	1,600,760	1,832,992	1,736,630	0	1,233,347	1,677,105	1,842,953	1,466,158	1,920,179	1,708,914	1,785,167	1,780,608	1,616,737	1,682,034
2,235,030	2,521,138	2,680,320	2,565,823	2,673,697	2,341,411	2,427,887	2,468,116	2,528,088	722,727	2,442,836	2,709,570	2,912,463	3,019,038	2,688,141	3,333,738	2,788,847	3,146,888	2,928,298	2,891,035	2,502,726
5,528,202	5,901,454	5,960,394	5,609,462	6,110,994	5,638,408	5,737,384	5,619,214	5,975,012	4,063,752	4,084,972	5,269,708	6,354,116	6,552,561	5,764,950	7,069,423	6,254,458	6,753,643	6,464,945	6,149,874	5,961,250

BASELINE ACTUAL HEAT INPUT(based on 24-Month Rolling Average) - MMBtu

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
		9,164,138	9,116,742	9,129,906	9,149,445	9,195,156	9,206,188	9,222,060	9,224,786	9,227,864	9,105,313	9,190,267	9,178,128	9,239,623	9,677,349	9,700,761	9,721,706	9,732,978	9,735,133	9,717,028
		9,833,492	9,789,360	9,776,456	9,715,113	9,697,379	9,664,433	9,601,980	9,578,954	9,566,662	9,565,695	9,577,546	9,615,450	9,614,853	9,689,150	9,707,758	9,757,942	9,772,877	9,769,600	9,807,709
		19,741,157	19,626,498	19,579,238	19,533,379	19,425,753	19,403,887	19,754,065	19,911,193	19,361,306	19,066,874	19,023,726	19,094,212	18,949,600	18,983,452	18,955,182	18,951,625	18,977,524	18,933,661	19,282,692
		28,083,742	28,161,519	28,415,794	28,265,604	28,032,979	28,233,076	28,546,659	28,908,023	29,270,134	29,741,429	30,004,145	30,407,976	30,347,380	30,588,308	30,685,168	30,820,424	31,025,555	31,180,255	30,996,999
		66,822,528	66,694,118	66,901,393	66,663,540	66,351,267	66,507,584	67,124,764	67,622,955	67,425,965	67,479,310	67,795,684	68,295,765	68,151,455	68,938,258	69,048,868	69,251,696	69,508,934	69,618,649	69,804,428

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
88.96	89.20	86.43	83.38	98.96	98.26	95.82	96.45	94.67	94.53	91.38	58.71	95.80	95.64	88.31	98.91	99.72	98.78	91.25	97.21	87.67
88.75	90.58	90.26	86.60	96.76	84.32	93.83	95.93	83.34	95.99	94.47	91.43	88.77	88.81	88.25	90.58	92.04	91.84	90.89	94.65	91.33
84.27	87.26	91.05	78.88	93.07	84.84	81.24	93.30	95.58	91.95	-0.33	59.24	80.90	90.24	75.95	99.09	95.49	97.20	97.79	95.14	86.30
74.63	86.70	98.57	91.94	98.32	83.45	86.69	96.91	88.08	24.30	85.62	93.60	92.19	93.38	84.88	95.55	79.07	91.61	84.45	90.81	69.95

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
94.68	94.05	92.51	86.77	99.58	99.47	98.78	99.04	97.52	98.78	97.65	61.00	98.58	98.61	90.57	99.60	99.99	99.88	92.52	98.59	91.24
93.75	95.90	95.73	89.83	98.79	86.78	96.90	98.43	98.24	98.76	97.95	96.45	94.27	94.07	91.98	93.65	97.67	95.69	94.83	98.72	94.68
89.32	92.74	95.96	83.31	94.88	87.65	85.96	96.27	98.26	95.41	0.00	63.07	85.02	95.17	80.03	99.59	99.26	99.29	99.05	96.68	88.80
77.45	87.81	99.15	92.44	98.22	84.71	87.26	97.39	89.90	25.63	86.70	94.74	94.20	95.17	86.81	96.63	82.76	94.50	87.99	92.68	73.04

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1.064	1.054	1.070	1.041	1.006	1.012	1.031	1.027	1.030	1.045	1.069	1.039	1.029	1.031	1.026	1.007	1.003	1.011	1.014	1.014	1.041
1.056	1.059	1.061	1.037	1.021	1.029	1.033	1.026	1.179	1.029	1.037	1.055	1.062	1.059	1.042	1.034	1.061	1.042	1.043	1.043	1.037
1.060	1.063	1.054	1.056	1.019	1.033	1.058	1.032	1.028	1.038	1.000	1.065	1.051	1.055	1.054	1.005	1.039	1.022	1.013	1.016	1.029
1.038	1.013	1.006	1.005	0.999	1.015	1.007	1.005	1.021	1.055	1.013	1.012	1.022	1.019	1.023	1.011	1.047	1.032	1.042	1.021	1.044

MONTHLY HEAT INPUT (Capable of Accomodating)- MMBtu

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
818,427	849,671	817,645	792,603	875,803	910,174	915,001	814,858	888,737	835,479	850,802	530,347	901,057	815,135	778,945	946,394	914,443	951,337	884,832	855,481	887,625
869,832	875,600	797,109	733,198	857,491	796,642	886,626	776,561	885,510	828,042	877,087	861,159	943,953	953,227	887,218	905,392	896,269	917,676	921,689	832,898	957,466
1,802,695	1,857,180	1,859,822	1,663,649	1,760,729	1,677,765	1,654,229	1,651,685	1,884,486	1,801,954	0	1,312,922	1,762,512	1,943,480	1,544,958	1,929,882	1,776,318	1,823,649	1,803,543	1,642,897	1,730,813
2,319,699	2,553,293	2,696,160	2,579,753	2,671,065	2,376,802	2,443,954	2,480,300	2,580,419	762,288	2,473,457	2,742,633	2,975,756	3,076,950	2,749,022	3,371,395	2,919,015	3,246,073	3,050,977	2,950,680	2,613,080
5,810,653	6,135,744	6,170,736	5,769,202	6,165,087	5,761,383	5,899,811	5,723,404	6,239,153	4,227,763	4,201,346	5,447,060	6,583,278	6,788,792	5,960,144	7,153,064	6,506,045	6,938,735	6,661,041	6,281,956	6,188,984

ANNUAL HEAT INPUT (Capable of Accomondating) - MMBtu

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
		9,556,647	9,504,523	9,502,821	9,507,376	9,545,308	9,537,431	9,551,984	9,550,509	9,555,624	9,422,036	9,496,151	9,473,309	9,525,689	9,959,558	9,985,890	10,015,693	10,031,398	10,032,553	10,025,025
		10,301,276	10,257,201	10,237,476	10,170,846	10,148,443	10,110,255	10,098,635	10,070,861	10,039,216	10,037,613	10,050,939	10,087,929	10,082,914	10,150,943	10,181,065	10,233,651	10,246,761	10,243,531	10,277,570
		20,426,250	20,354,207	20,326,159	20,278,937	20,194,336	20,192,810	20,525,234	20,712,143	20,146,989	19,872,370	19,827,938	19,908,483	19,774,494	19,791,466	19,770,832	19,750,518	19,750,929	19,691,918	20,039,911
		28,913,382	28,948,719	29,138,170	28,957,664	28,684,665	28,833,601	29,125,962	29,507,106	29,855,493	30,251,960	30,515,723	30,871,772	30,814,323	31,057,847	31,207,512	31,379,360	31,630,661	31,786,806	31,643,416
		69,197,555	69,064,650	69,204,626	68,914,823	68,572,753	68,674,097	69,301,814	69,840,619	69,597,322	69,583,979	69,890,751	70,341,492	70,197,421	70,959,814	71,145,299	71,379,223	71,659,748	71,754,807	71,985,923

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF AC DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING MINUS PAST ACTUAL TONS)

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
		392,509	387,781	372,915	357,931	350,152	331,243	329,924	325,723	327,760	316,723	305,884	295,181	286,066	282,209	285,129	293,988	298,420	297,421	307,997
		467,785	467,842	461,020	455,733	451,064	445,822	496,655	491,907	472,554	471,918	473,393	472,479	468,062	461,793	473,307	475,709	473,884	473,931	469,861
		685,093	727,709	746,922	745,558	768,584	788,923	771,169	800,950	785,683	805,497	804,212	814,272	824,895	808,014	815,651	798,894	773,405	758,257	757,219
		829,641	787,200	722,377	692,061	651,686	600,525	579,303	599,083	585,359	510,532	511,579	463,796	466,943	469,539	522,345	558,936	605,106	606,551	646,417
		2,375,027	2,370,532	2,303,233	2,251,283	2,221,486	2,166,514	2,177,050	2,217,664	2,171,357	2,104,669	2,095,067	2,045,728	2,045,966	2,021,556	2,096,431	2,127,527	2,150,815	2,136,159	2,181,495

Table DJ - 3
Dave Johnston Heat Input Adjust for Equivalent Availability

PAST ACTUAL MONTHLY Heat Input from CEM- MMBtu

Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
879,017	898,648	851,332	864,772	845,102	856,530	832,375	814,898	909,330	930,155	808,528	908,806	882,222	669,094	843,247	871,993	887,351	857,352
856,839	891,522	848,902	879,763	883,641	868,062	884,863	862,874	873,509	878,048	767,119	51,353	373,565	850,987	908,999	950,525	959,272	935,049
1,710,615	1,468,702	1,699,082	1,612,449	1,758,656	1,704,793	1,856,805	1,885,075	1,945,134	1,670,192	1,628,678	1,883,465	1,816,071	1,777,689	1,666,793	1,844,154	1,702,079	1,738,721
2,900,980	2,654,024	2,776,580	2,406,900	2,832,028	2,896,399	2,494,366	3,118,490	3,230,964	3,307,097	2,429,874	2,804,144	3,140,705	3,116,798	2,958,429	2,966,380	2,877,134	1,985,973
6,347,451	5,912,896	6,175,896	5,763,884	6,319,427	6,325,784	6,068,409	6,681,337	6,958,937	6,785,492	5,634,199	5,647,768	6,212,563	6,414,568	6,377,468	6,633,051	6,425,837	5,517,095

BASELINE ACTUAL HEAT INPUT(based on 24-Month Rolling Average) - MMBtu

Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
9,776,012	9,798,032	9,968,254	10,016,181	10,035,810	10,082,114	10,117,483	10,089,756	10,094,891	10,116,162	10,123,647	10,146,682	10,188,026	10,124,467	10,290,858	10,289,006	10,337,367	10,386,294
9,991,029	9,991,062	10,000,075	10,028,228	10,056,538	10,114,784	10,203,793	10,215,321	10,265,034	10,274,821	10,279,991	9,930,069	9,714,421	9,716,953	9,763,289	9,794,125	9,823,791	9,865,739
19,342,730	19,266,499	19,232,181	19,188,007	19,193,609	19,163,715	19,304,539	19,383,513	19,544,152	19,597,544	19,611,503	19,636,739	19,676,460	20,565,304	20,782,027	20,865,552	20,795,115	20,931,396
31,108,076	31,184,757	31,429,701	31,515,636	31,671,081	31,779,120	31,743,392	31,965,788	32,410,565	32,850,170	32,831,049	32,969,077	34,178,066	34,515,047	34,639,476	34,666,434	34,595,482	34,244,398
70,217,846	70,240,349	70,630,210	70,748,051	70,957,037	71,139,732	71,369,206	71,654,377	72,314,642	72,838,696	72,846,188	72,682,566	73,756,972	74,921,770	75,475,650	75,615,117	75,551,755	75,427,828

Maximum 12 month ave based on 24-month period 75,615,117

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
93.94	91.70	91.89	87.78	86.59	91.22	86.57	87.59	94.23	96.10	92.71	93.71	93.96	65.11	88.87	88.25	88.84	90.02
89.58	88.84	85.43	83.68	86.10	89.11	89.58	89.29	88.25	87.60	83.49	4.84	37.02	84.59	94.50	94.61	94.61	96.30
91.27	74.77	88.60	80.91	88.18	88.83	93.06	96.47	96.90	84.71	90.89	95.89	96.32	89.11	86.18	91.27	84.56	90.17
86.11	76.20	87.19	73.75	85.76	89.14	70.79	89.22	86.25	86.57	70.46	82.79	93.54	90.49	90.73	87.85	82.50	64.74

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
96.92	96.24	95.01	91.99	90.80	95.56	89.69	92.47	96.99	98.32	96.34	96.49	96.31	68.17	92.97	92.32	92.98	93.18
92.20	93.15	89.78	87.91	90.82	93.85	93.62	94.18	91.76	91.36	88.75	5.47	39.84	87.02	97.57	98.10	98.19	99.10
96.28	79.24	94.12	84.65	92.71	93.38	94.43	99.49	99.07	87.52	93.26	97.75	98.30	93.21	91.43	95.08	87.64	93.47
90.99	78.93	89.72	76.37	87.90	91.52	74.04	91.30	88.52	88.72	72.81	85.49	94.97	91.96	92.78	90.07	84.48	68.36

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
1.032	1.049	1.034	1.048	1.049	1.048	1.036	1.056	1.029	1.023	1.039	1.030	1.025	1.047	1.046	1.046	1.047	1.035
1.029	1.049	1.051	1.050	1.055	1.053	1.045	1.055	1.040	1.043	1.063	1.131	1.076	1.029	1.032	1.037	1.038	1.029
1.055	1.060	1.062	1.046	1.051	1.051	1.015	1.031	1.022	1.033	1.026	1.019	1.021	1.046	1.061	1.042	1.036	1.037
1.057	1.036	1.029	1.036	1.025	1.027	1.046	1.023	1.026	1.025	1.033	1.033	1.015	1.016	1.023	1.025	1.024	1.056

MONTHLY HEAT INPUT (Capable of Accomodating)- MMBtu

Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
906,899	943,108	880,254	906,244	886,183	897,314	862,405	860,365	935,955	951,682	840,249	935,799	904,281	700,533	882,125	912,236	928,702	887,448
881,927	934,798	892,181	924,182	932,064	914,296	924,688	910,128	908,248	915,759	815,457	58,057	402,033	875,497	938,505	985,507	995,571	962,237
1,804,381	1,556,348	1,804,953	1,686,919	1,849,058	1,792,003	1,884,191	1,944,041	1,988,698	1,725,688	1,671,181	1,919,985	1,853,413	1,859,460	1,768,412	1,921,305	1,764,076	1,802,354
3,065,404	2,749,053	2,856,945	2,492,415	2,902,584	2,973,762	2,608,961	3,191,071	3,315,861	3,389,110	2,510,905	2,895,422	3,188,740	3,167,536	3,025,321	3,041,555	2,946,185	2,097,021
6,658,611	6,183,307	6,434,333	6,009,759	6,569,889	6,577,375	6,280,245	6,905,605	7,148,762	6,982,239	5,837,792	5,809,264	6,348,466	6,603,026	6,614,362	6,860,602	6,634,534	5,749,059

ANNUAL HEAT INPUT (Capable of Accomondating) - MMBtu

Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
10,086,465	10,114,837	10,282,529	10,326,437	10,344,693	10,384,528	10,419,429	10,411,710	10,424,601	10,442,941	10,455,636	10,479,167	10,513,568	10,438,433	10,614,322	10,619,911	10,676,695	10,730,946
10,463,553	10,473,063	10,484,775	10,511,950	10,540,182	10,598,776	10,694,521	10,720,840	10,776,643	10,791,209	10,810,657	10,396,930	10,183,926	10,183,131	10,221,804	10,242,581	10,263,753	10,301,262
20,123,309	20,052,725	20,025,424	19,967,536	19,963,475	19,929,566	20,039,837	20,131,493	20,286,959	20,322,689	20,332,437	20,350,186	20,375,916	21,305,646	21,533,391	21,612,788	21,523,085	21,651,783
31,820,144	31,923,988	32,152,087	32,238,445	32,413,090	32,551,891	32,566,495	32,826,498	33,296,028	33,768,606	33,783,909	33,941,410	35,154,636	35,501,676	35,643,020	35,675,919	35,610,537	35,284,536
72,493,470	72,564,613	72,944,816	73,044,369	73,261,441	73,464,761	73,720,282	74,090,541	74,784,231	75,325,445	75,382,639	75,167,694	76,228,046	77,428,886	78,012,537	78,151,199	78,074,070	77,968,528

Maximum 12 month ave based on 24-month period 78,151,199

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING HEAT INPUT MINUS PAST ACTUAL HEAT INPUT)

Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
310,453	316,805	314,275	310,257	308,884	302,414	301,946	321,954	329,710	326,779	331,990	332,486	325,542	313,967	323,464	330,906	339,328	344,652
472,524	482,002	484,701	483,723	483,644	483,992	490,728	505,519	511,609	516,389	530,667	466,861	469,505	466,178	458,516	448,455	439,962	435,523
780,580	786,226	793,244	779,529	769,866	765,851	735,299	747,981	742,807	725,145	720,934	713,447	699,456	740,342	751,364	747,236	727,971	720,387
712,068	739,231	722,386	722,809	742,010	772,771	823,104	860,710	885,464	918,437	952,860	972,334	976,571	986,629	1,003,544	1,009,485	1,015,054	1,040,138
2,275,624	2,324,264	2,314,606	2,296,318	2,304,404	2,325,029	2,351,077	2,436,164	2,469,589	2,486,749	2,536,451	2,485,128	2,471,075	2,507,116	2,536,888	2,536,082	2,522,315	2,540,700

Maximum 12 month ave based on 24-month period 2,540,700

Table DJ - 4
Coal Burn Adjusted for Equivalent Availability

MONTHLY ACTUAL COAL BURN (EIA 767) - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04
Dave Johnston 1	51,837	50,275	51,063	49,092	47,399	48,817	46,448	46,420	43,570	41,192	48,151	38,260	4,636	48,907	51,396	46,875	47,460	49,313	42,774	48,697	30,351	47,522	48,550	43,359	44,299	48,306
Dave Johnston 2	52,512	50,920	52,195	55,255	49,171	50,611	47,845	48,372	45,762	47,028	44,884	46,786	40,194	45,595	47,527	46,675	45,042	45,703	27,493	49,720	47,789	47,165	47,565	45,041	45,728	46,426
Dave Johnston 3	102,041	103,313	94,331	101,430	93,019	60,860	75,434	58,487	98,129	105,220	101,300	101,476	112,414	107,172	100,185	94,867	100,518	57,289	87,027	94,042	97,711	94,639	98,907	99,317	92,462	99,161
Dave Johnston 4	129,795	110,857	136,111	150,726	101,328	92,278	0	92,864	91,297	123,755	106,820	143,721	148,054	130,220	142,954	118,440	127,425	149,676	140,930	136,329	119,004	124,604	137,381	149,497	146,050	149,086
Dave Johnston Totals	336,185	315,365	333,700	356,503	290,917	252,565	169,727	246,144	278,758	317,195	301,155	330,243	305,298	331,894	342,062	306,858	320,445	301,981	298,224	328,788	294,855	313,930	332,403	337,214	328,539	342,979

BASELINE ACTUAL COAL BURN BASED ON 24-MONTH ROLLING AVERAGE - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																							536,182	532,413	531,429
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																							563,426	560,034	557,787
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																							1,119,564	1,114,775	1,112,699
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																							1,452,032	1,460,160	1,479,274
Dave Johnston Totals																								3,671,205	3,667,382	3,681,189

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04
Dave Johnston 1	91.60	93.95	92.29	84.38	91.11	89.77	89.23	84.36	85.65	76.40	87.32	78.84	5.83	99.99	99.41	92.62	97.68	97.80	86.75	92.41	60.20	88.96	89.20	86.43	83.38	98.96
Dave Johnston 2	94.78	94.78	94.14	93.07	94.59	91.36	92.33	87.90	91.23	89.38	84.09	92.28	79.72	94.76	94.05	92.38	90.96	93.03	55.12	96.31	94.01	88.75	90.58	90.26	86.60	96.76
Dave Johnston 3	95.34	98.78	87.94	91.77	94.80	57.59	77.31	56.25	96.07	89.22	86.37	93.57	96.63	95.78	91.95	88.74	94.47	49.16	83.47	81.95	93.12	84.27	87.26	91.05	78.88	93.07
Dave Johnston 4	80.32	71.23	83.82	92.10	71.58	58.10	-0.27	55.90	60.72	80.43	67.90	94.44	93.23	89.00	92.83	78.96	89.19	96.56	93.55	85.16	77.37	74.63	86.70	98.57	91.94	98.32

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04
Dave Johnston 1	95.92	97.87	96.70	88.93	98.09	92.87	94.21	89.76	90.41	81.49	92.24	83.51	7.13	99.59	98.61	92.99	99.30	99.30	89.37	95.84	64.21	94.68	94.05	92.51	86.77	99.58
Dave Johnston 2	97.91	98.21	97.62	96.97	98.07	94.77	95.87	94.95	96.37	94.76	89.72	97.14	84.35	98.12	97.93	96.91	94.83	97.64	57.34	98.94	98.29	93.75	95.90	95.73	89.83	98.79
Dave Johnston 3	95.52	98.52	90.85	94.08	95.39	62.01	77.62	57.81	98.17	93.67	90.45	96.64	98.90	98.61	95.65	92.54	97.60	51.70	85.94	85.81	97.96	89.32	92.74	95.96	83.31	94.88
Dave Johnston 4	83.61	75.41	86.86	95.18	75.54	61.00	0.00	57.79	67.00	82.49	72.62	96.27	94.29	89.84	93.67	79.92	91.15	97.59	94.70	86.54	81.23	77.45	87.81	99.15	92.44	98.22

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04
Dave Johnston 1	1.047	1.042	1.048	1.054	1.077	1.034	1.056	1.064	1.056	1.067	1.056	1.059	1.222	0.996	0.992	1.004	1.017	1.015	1.030	1.037	1.067	1.064	1.054	1.070	1.041	1.006
Dave Johnston 2	1.033	1.036	1.037	1.042	1.037	1.037	1.038	1.080	1.056	1.060	1.067	1.053	1.058	1.035	1.041	1.049	1.043	1.050	1.040	1.027	1.046	1.056	1.059	1.061	1.037	1.021
Dave Johnston 3	1.002	0.997	1.033	1.025	1.006	1.077	1.004	1.028	1.022	1.050	1.047	1.033	1.023	1.030	1.040	1.043	1.033	1.052	1.030	1.047	1.052	1.060	1.063	1.054	1.056	1.019
Dave Johnston 4	1.041	1.059	1.036	1.033	1.055	1.050	1.000	1.034	1.103	1.026	1.069	1.019	1.011	1.009	1.009	1.012	1.022	1.011	1.012	1.016	1.050	1.038	1.013	1.006	1.005	0.999

MONTHLY COAL (CAPABLE OF ACCOMODATING) - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04
Dave Johnston 1	54,284	52,371	53,502	51,740	51,031	50,499	49,042	49,389	45,990	43,937	50,864	40,525	5,666	48,712	50,981	47,061	48,246	50,066	44,065	50,507	32,370	50,582	51,190	46,408	46,100	48,609
Dave Johnston 2	54,245	52,762	54,123	57,572	50,980	52,497	49,683	52,254	48,340	49,863	47,886	49,251	42,529	47,210	49,486	48,967	46,960	47,970	28,601	51,076	49,968	49,821	50,359	47,770	47,433	47,403
Dave Johnston 3	102,225	103,039	97,445	103,983	93,598	65,535	75,740	60,111	100,280	110,469	106,086	104,803	115,052	110,337	104,209	98,923	103,848	60,250	89,601	98,471	102,787	100,309	105,118	104,677	97,656	101,090
Dave Johnston 4	135,116	117,360	141,058	155,770	106,938	96,878	0	96,002	100,738	126,928	114,234	146,514	149,739	131,452	144,246	119,867	130,226	151,273	142,673	138,548	124,940	129,324	139,133	150,381	146,843	148,939
Dave Johnston Totals	345,870	325,533	346,129	369,065	302,548	265,409	174,464	257,756	295,348	331,198	319,069	341,092	312,986	337,711	348,923	314,818	329,280	309,558	304,940	338,602	310,064	330,036	345,800	349,236	338,032	346,041

ANNUAL COAL BURN BASED ON 24-MONTH ROLLING AVERAGE (CAPABILE OF ACCOMODATING) - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																							559,513	555,421	553,540
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																							590,087	586,681	584,001
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																							1,158,448	1,156,164	1,155,189
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																							1,494,669	1,500,533	1,516,322
Dave Johnston Totals																								3,802,717	3,798,799	3,809,053

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING MINUS PAST ACTUAL TONS)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																							23,330	23,008	22,111
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																							26,661	26,647	26,215
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																							38,884	41,389	42,491
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																							42,637	40,373	37,048
Dave Johnston Totals																								131,513	131,417	127,864

Table DJ - 4
Coal Burn Adjusted for Equivalent Availability

MONTHLY ACTUAL COAL BURN (EIA 767) - TONS

Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
50,384	49,229	44,835	49,160	47,000	47,935	30,560	53,900	51,915	46,459	51,325	50,052	51,936	48,983	46,326	47,297	46,527	51,649	51,269	46,494	47,170	47,952	46,424
42,331	47,479	43,518	43,822	47,571	50,608	47,408	48,884	47,916	45,765	46,976	46,127	48,127	48,672	44,356	50,119	45,560	48,617	48,341	45,581	47,749	47,679	48,664
96,899	85,084	98,871	100,746	98,994	0	70,536	97,554	103,573	85,417	112,255	102,937	116,376	115,583	102,587	99,346	99,145	86,471	100,946	94,585	104,234	101,189	108,325
133,742	140,198	142,223	141,209	38,438	143,093	150,770	154,799	152,452	135,691	152,796	123,067	147,592	136,616	138,537	118,397	138,497	129,802	145,961	127,673	146,493	146,280	120,010
323,356	321,991	329,447	334,937	232,003	241,637	299,273	355,137	355,855	313,333	363,352	322,183	364,031	349,854	331,806	315,159	329,728	316,539	346,518	314,334	345,646	343,100	323,423

BASELINE ACTUAL COAL BURN BASED ON 24-MONTH ROLLING AVERAGE - TONS

Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
531,089	531,158	529,876	530,047	530,323	531,081	524,576	530,929	532,811	536,911	560,255	560,828	561,098	562,152	561,585	560,577	562,453	563,929	574,388	573,874	573,184	575,481	576,543
552,855	548,967	546,140	542,746	542,609	543,727	544,550	545,478	546,994	546,483	549,874	550,140	550,440	551,438	551,095	553,303	562,336	561,785	562,061	561,269	561,361	562,680	564,148
1,113,983	1,105,810	1,108,736	1,128,679	1,140,459	1,111,215	1,097,418	1,093,585	1,094,722	1,086,692	1,086,613	1,084,495	1,092,591	1,102,949	1,103,983	1,125,012	1,131,071	1,127,285	1,128,903	1,128,876	1,131,539	1,132,475	1,140,407
1,478,090	1,472,826	1,493,274	1,517,739	1,536,959	1,562,073	1,591,810	1,607,332	1,630,148	1,626,133	1,628,504	1,624,927	1,627,246	1,636,335	1,641,891	1,626,251	1,625,035	1,621,771	1,635,250	1,636,784	1,641,340	1,639,732	1,626,712
3,676,017	3,658,761	3,678,026	3,719,212	3,750,349	3,748,096	3,758,353	3,777,324	3,804,674	3,796,219	3,825,247	3,820,391	3,831,376	3,852,874	3,858,554	3,865,143	3,880,895	3,874,770	3,900,602	3,900,804	3,907,425	3,910,368	3,907,810

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
98.26	95.82	96.45	94.67	94.53	91.38	58.71	95.80	95.64	88.31	98.91	99.72	98.78	91.25	97.21	87.67	93.94	91.70	91.89	87.78	86.59	91.22	86.57
84.32	93.83	95.93	83.34	95.99	94.47	91.43	88.77	88.81	88.25	90.58	92.04	91.84	90.89	94.65	91.33	89.58	88.84	85.43	83.68	86.10	89.11	89.58
84.84	81.24	93.30	95.58	91.95	-0.33	59.24	80.90	90.24	75.95	99.09	95.49	97.20	97.79	95.14	86.30	91.27	74.77	88.60	80.91	88.18	88.83	93.06
83.45	86.69	96.91	88.08	24.30	85.62	93.60	92.19	93.38	84.88	95.55	79.07	91.61	84.45	90.81	69.95	86.11	76.20	87.19	73.75	85.76	89.14	70.79

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
99.47	98.78	99.04	97.52	98.78	97.65	61.00	98.58	98.61	90.57	99.60	99.99	99.88	92.52	98.59	91.24	96.92	96.24	95.01	91.99	90.80	95.56	89.69
86.78	96.90	98.43	98.24	98.76	97.95	96.45	94.27	94.07	91.98	93.65	97.67	95.69	94.83	98.72	94.68	92.20	93.15	89.78	87.91	90.82	93.85	93.62
87.65	85.96	96.27	98.26	95.41	0.00	63.07	85.02	95.17	80.03	99.59	99.26	99.29	99.05	96.68	88.80	96.28	79.24	94.12	84.65	92.71	93.38	94.43
84.71	87.26	97.39	89.90	25.63	86.70	94.74	94.20	95.17	86.81	96.63	82.76	94.50	87.99	92.68	73.04	90.99	78.93	89.72	76.37	87.90	91.52	74.04

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
1.012	1.031	1.027	1.030	1.045	1.069	1.039	1.029	1.031	1.026	1.007	1.003	1.011	1.014	1.014	1.041	1.032	1.049	1.034	1.048	1.049	1.048	1.036
1.029	1.033	1.026	1.179	1.029	1.037	1.055	1.062	1.059	1.042	1.034	1.061	1.042	1.043	1.043	1.037	1.029	1.049	1.051	1.050	1.055	1.053	1.045
1.033	1.058	1.032	1.028	1.038	1.000	1.065	1.051	1.055	1.054	1.005	1.039	1.022	1.013	1.016	1.029	1.055	1.060	1.062	1.046	1.051	1.051	1.015
1.015	1.007	1.005	1.021	1.055	1.013	1.012	1.022	1.019	1.023	1.011	1.047	1.032	1.042	1.021	1.044	1.057	1.036	1.029	1.036	1.025	1.027	1.046

MONTHLY COAL (CAPABLE OF ACCOMODATING) - TONS

Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
51,007	50,748	46,038	50,641	49,113	51,221	31,751	55,461	53,524	47,649	51,684	50,183	52,513	49,669	46,980	49,222	48,003	54,204	53,011	48,724	49,463	50,235	48,099
43,565	49,036	44,656	51,658	48,941	52,473	50,011	51,915	50,753	47,704	48,569	48,947	50,147	50,780	46,265	51,958	46,894	50,977	50,806	47,883	50,366	50,218	50,854
100,116	90,027	102,017	103,576	102,718	0	75,087	102,522	109,222	90,008	112,822	106,997	118,885	117,072	104,247	102,227	104,579	91,631	107,236	98,954	109,592	106,365	109,923
135,764	141,126	142,925	144,132	40,542	144,887	152,610	158,163	155,376	138,764	154,522	128,811	152,244	142,339	141,395	123,618	146,346	134,450	150,186	132,209	150,143	150,187	125,523
330,451	330,937	335,636	350,007	241,314	248,581	309,458	368,060	368,876	324,125	367,598	334,938	373,789	359,860	338,887	327,025	345,822	331,262	361,239	327,769	359,563	357,006	334,399

ANNUAL COAL BURN BASED ON 24-MONTH ROLLING AVERAGE (CAPABILE OF ACCOMODATING) - TONS

Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
552,292	551,796	549,300	549,371	549,407	550,323	543,203	548,965	550,295	553,857	576,867	577,602	578,368	579,673	579,040	578,618	580,587	582,436	592,756	591,827	590,963	592,877	593,876
578,722	574,454	571,292	570,872	570,501	570,610	571,446	572,472	573,905	573,132	576,152	577,020	577,351	578,257	577,910	579,904	589,050	589,000	589,419	588,450	588,453	589,677	591,388
1,156,525	1,149,547	1,153,756	1,172,776	1,186,265	1,156,210	1,143,613	1,139,639	1,141,208	1,133,810	1,132,695	1,131,026	1,138,363	1,147,438	1,147,637	1,168,626	1,176,115	1,172,695	1,174,919	1,174,242	1,176,479	1,177,323	1,183,456
1,513,675	1,506,353	1,524,346	1,547,973	1,568,244	1,592,687	1,618,623	1,634,240	1,654,812	1,650,937	1,653,329	1,652,008	1,656,007	1,667,243	1,672,827	1,659,000	1,660,837	1,658,788	1,671,411	1,672,853	1,678,358	1,678,261	1,667,601
3,801,214	3,782,150	3,798,694	3,840,992	3,874,417	3,869,830	3,876,885	3,895,316	3,920,219	3,911,736	3,939,043	3,937,656	3,950,089	3,972,610	3,977,414	3,986,147	4,006,588	4,002,918	4,028,505	4,027,372	4,034,253	4,038,138	4,036,322

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING MINUS PAST ACTUAL TONS)

Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06
21,203	20,638	19,424	19,324	19,083	19,242	18,628	18,036	17,484	16,946	16,611	16,774	17,270	17,521	17,455	18,041	18,133	18,506	18,368	17,953	17,779	17,396	17,333
25,867	25,487	25,151	28,126	27,892	26,883	26,896	26,994	26,912	26,649	26,278	26,880	26,911	26,819	26,815	26,601	26,713	27,215	27,358	27,181	27,092	26,997	27,240
42,542	43,737	45,020	44,098	45,807	44,995	46,195	46,054	46,486	47,118	46,082	46,530	45,772	44,489	43,654	43,614	45,044	45,410	46,017	45,366	44,940	44,848	43,049
35,585	33,527	31,072	30,234	31,286	30,614	26,813	26,909	24,664	24,804	24,825	27,080	28,760	30,908	30,937	32,748	35,802	37,016	36,161	36,069	37,018	38,529	40,890
125,197	123,389	120,668	121,781	124,068	121,734	118,531	117,992	115,545	115,517	113,796	117,265	118,714	119,737	118,860	121,004	125,693	128,148	127,904	126,568	126,828	127,770	128,512

Table DJ - 4
Coal Burn Adjusted for Equivalent Availability

MONTHLY ACTUAL COAL BURN (EIA 767) - TONS

Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
45,099	48,903	48,909	45,716	49,295	48,776	35,398	46,861	48,895	49,889	48,173
46,861	48,903	48,909	46,480	2,455	20,077	44,007	46,926	50,043	51,591	50,367
110,701	115,357	100,416	96,652	113,229	106,343	101,930	96,848	104,836	99,237	98,468
148,086	150,881	148,957	111,067	142,659	155,903	152,176	147,093	151,928	145,638	110,130
350,747	364,044	347,191	299,915	307,638	331,098	333,511	488,037	488,037	488,037	488,037

BASELINE ACTUAL COAL BURN BASED ON 24-MONTH ROLLING AVERAGE - TONS

Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
574,940	574,199	574,039	574,480	574,547	575,435	569,167	577,317	574,815	573,802	574,659
564,366	567,652	568,367	569,847	549,164	535,417	532,116	531,876	532,455	534,293	536,594
1,146,177	1,155,406	1,163,072	1,161,962	1,168,204	1,171,878	1,222,843	1,235,999	1,239,640	1,237,472	1,243,998
1,626,212	1,634,781	1,639,161	1,623,583	1,624,308	1,683,040	1,687,581	1,685,743	1,684,307	1,680,900	1,668,119
3,911,694	3,932,038	3,944,638	3,929,872	3,916,223	3,965,770	4,011,708	4,030,935	4,031,217	4,026,467	4,023,370

Maximum 12 month ave based on 24-month period 4,031,217

CAPACITY FACTOR %

Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
87.59	94.23	96.10	92.71	93.71	93.96	65.11	88.87	88.25	88.84	90.02
89.29	88.25	87.60	83.49	4.84	37.02	84.59	94.50	94.61	94.61	96.30
96.47	96.90	84.71	90.89	95.89	96.32	89.11	86.18	91.27	84.56	90.17
89.22	86.25	86.57	70.46	82.79	93.54	90.49	90.73	87.85	82.50	64.74

EQUIVALENT AVAILABILITY %

Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
92.47	96.99	98.32	96.34	96.49	96.31	68.17	92.97	92.32	92.98	93.18
94.18	91.76	91.36	88.75	5.47	39.84	87.02	97.57	98.10	98.19	99.10
99.49	99.07	87.52	93.26	97.75	98.30	93.21	91.43	95.08	87.64	93.47
91.30	88.52	88.72	72.81	85.49	94.97	91.96	92.78	90.07	84.48	68.36

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
1.056	1.029	1.023	1.039	1.030	1.025	1.047	1.046	1.046	1.047	1.035
1.055	1.040	1.043	1.063	1.131	1.076	1.029	1.032	1.037	1.038	1.029
1.031	1.022	1.033	1.026	1.019	1.021	1.046	1.061	1.042	1.036	1.037
1.023	1.026	1.025	1.033	1.033	1.015	1.016	1.023	1.025	1.024	1.056

MONTHLY COAL (CAPABLE OF ACCOMODATING) - TONS

Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
47,615	50,335	50,041	47,510	50,759	49,995	37,061	49,021	51,152	52,214	49,864
49,427	50,848	51,010	49,409	2,775	21,607	45,274	48,449	51,885	53,543	51,831
114,164	117,941	103,753	99,174	115,425	108,529	106,619	102,752	109,221	102,852	102,072
151,533	154,846	152,651	114,771	147,303	158,287	154,653	150,419	155,778	149,133	116,288
362,739	373,969	357,454	310,864	316,262	338,419	343,608	350,642	368,036	357,742	320,055

Maximum 12 month ave based on 24-month period 373,969

ANNUAL COAL BURN BASED ON 24-MONTH ROLLING AVERAGE (CAPABILE OF ACCOMODATING) - TONS

Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
593,380	593,044	592,690	593,426	593,484	593,926	586,846	595,481	593,327	592,672	593,779
592,400	596,042	597,028	599,405	574,964	561,297	557,698	556,917	556,902	558,297	560,361
1,189,993	1,198,905	1,205,768	1,204,347	1,210,271	1,213,177	1,266,486	1,280,319	1,283,669	1,280,484	1,286,515
1,668,898	1,678,439	1,684,201	1,670,125	1,671,710	1,730,582	1,735,465	1,734,370	1,733,177	1,730,056	1,718,818
4,044,671	4,066,429	4,079,688	4,067,302	4,050,429	4,098,982	4,146,495	4,167,087	4,167,075	4,161,508	4,159,473

Maximum 12 month ave based on 24-month period 4,167,087

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING MINUS PAST ACTUAL TONS)

Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
18,440	18,844	18,651	18,946	18,937	18,490	17,679	18,164	18,512	18,869	19,120
28,035	28,390	28,662	29,558	25,800	25,880	25,582	25,041	24,447	24,005	23,767
43,816	43,499	42,696	42,385	42,067	41,299	43,643	44,320	44,029	43,011	42,518
42,686	43,658	45,041	46,542	47,402	47,542	47,884	48,627	48,870	49,156	50,698
132,977	134,391	135,050	137,430	134,207	133,212	134,788	136,152	135,858	135,041	136,103

Maximum 12 month ave based on 24-month period 137,430

Table DJ - 5
Dave Johnston PM Emissions Evaluation

PAST ACTUAL MONTHLY Heat Input from CEM- MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	856,431	844,024	859,980	796,191	771,495	830,992	794,081	790,058	755,565	705,789	814,907	636,508	64,361	865,233	898,989	850,065	839,265	889,113	761,050	854,608	510,887	768,919	805,844	763,921	761,638	870,352	899,059
Dave Johnston 2	795,108	865,625	896,770	893,942	822,671	876,102	850,915	870,506	818,261	865,149	824,134	852,348	727,099	807,422	780,342	853,560	805,081	847,368	490,199	891,457	830,876	823,457	827,020	751,571	706,844	839,818	774,083
Dave Johnston 3	1,804,474	1,821,648	1,715,572	1,778,662	1,644,492	1,132,635	1,422,374	1,099,774	1,822,212	1,763,400	1,701,982	1,755,382	1,852,475	1,765,454	1,792,281	1,728,809	1,704,463	983,972	1,590,540	1,621,163	1,767,719	1,700,796	1,747,452	1,764,582	1,575,157	1,727,127	1,623,855
Dave Johnston 4	2,410,268	2,165,148	2,641,791	2,893,136	2,067,922	1,900,922	0	1,718,614	1,766,980	2,387,031	2,211,376	2,809,332	2,851,882	2,595,128	2,876,375	2,518,036	2,581,635	2,869,238	2,678,826	2,500,662	2,286,693	2,235,030	2,521,138	2,680,320	2,565,823	2,673,697	2,341,411
Dave Johnston Totals	5,866,281	5,696,445	6,114,113	6,361,931	5,306,580	4,740,651	3,067,370	4,478,952	5,163,018	5,721,369	5,552,399	6,053,570	5,495,817	6,033,237	6,347,987	5,950,470	5,930,444	5,589,691	5,520,615	5,867,890	5,396,175	5,528,202	5,901,454	5,960,394	5,609,462	6,110,994	5,638,408

MONTHLY PM EMISSION RATES lb/MMBtu (average 1999-2006 Method 5 test results)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	0.035	0.035	0.035	0.035	0.035	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136
Dave Johnston 2	0.021	0.021	0.021	0.021	0.021	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
Dave Johnston 3	0.032	0.032	0.032	0.032	0.032	0.022	0.022	0.022	0.022	0.022	0.022	0.022	0.022	0.022	0.022	0.022	0.022	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
Dave Johnston 4	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.088	0.088	0.088	0.088	0.088
Dave Johnston Totals																											

BASELINE ACTUAL PM EMISSIONS (calculated by multiplying montly HI by the tested PM emission rate)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	15	15	15	14	14	7	7	7	7	6	7	6	1	8	8	8	8	60	52	58	35	52	55	52	52	59	61
Dave Johnston 2	8	9	9	9	9	22	21	22	20	22	21	21	18	20	20	21	20	18	11	19	18	18	18	16	15	18	17
Dave Johnston 3	29	29	27	28	26	12	16	12	20	19	19	19	20	19	20	19	19	27	43	44	48	46	47	48	43	47	44
Dave Johnston 4	46	41	50	55	39	36	0	33	34	45	70	88	90	82	91	79	81	90	84	79	72	70	111	118	113	118	103
Dave Johnston Totals	98	94	102	107	88	78	44	74	81	93	116	135	129	129	138	127	128	196	190	200	172	186	231	234	222	242	225

PAST ACTUAL ANNUAL PM EMISSIONS - TONS (24-month average divided by 2)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																							258	276	299	322
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																							205	209	213	217
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																							328	335	344	352
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																							792	826	864	891
Dave Johnston Totals																								1,584	1,646	1,720	1,781

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	91.60	93.95	92.29	84.38	91.11	89.77	89.23	84.36	85.65	76.40	87.32	78.84	5.83	99.99	99.41	92.62	97.68	97.80	86.75	92.41	60.20	88.96	89.20	86.43	83.38	98.96	98.26
Dave Johnston 2	94.78	94.78	94.14	93.07	94.59	91.36	92.33	87.90	91.23	89.38	84.09	92.28	79.72	94.76	94.05	92.38	90.96	93.03	55.12	96.31	94.01	88.75	90.58	90.26	86.60	96.76	84.32
Dave Johnston 3	95.34	98.78	87.94	91.77	94.80	57.59	77.31	56.25	96.07	89.22	86.37	93.57	96.63	95.78	91.95	88.74	94.47	49.16	83.47	81.95	93.12	84.27	87.26	91.05	78.88	93.07	84.84
Dave Johnston 4	80.32	71.23	83.82	92.10	71.58	58.10	-0.27	55.90	60.72	80.43	67.90	94.44	93.23	89.00	92.83	78.96	89.19	96.56	93.55	85.16	77.37	74.63	86.70	98.57	91.94	98.32	83.45

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	95.92	97.87	96.70	88.93	98.09	92.87	94.21	89.76	90.41	81.49	92.24	83.51	7.13	99.59	98.61	92.99	99.30	99.30	89.37	95.84	64.21	94.68	94.05	92.51	86.77	99.58	99.47
Dave Johnston 2	97.91	98.21	97.62	96.97	98.07	94.77	95.87	94.95	96.37	94.76	89.72	97.14	84.35	98.12	97.93	96.91	94.83	97.64	57.34	98.94	98.29	93.75	95.90	95.73	89.83	98.79	86.78
Dave Johnston 3	95.52	98.52	90.85	94.08	95.39	62.01	77.62	57.81	98.17	93.67	90.45	96.64	98.90	98.61	95.65	92.54	97.60	51.70	85.94	85.81	97.96	89.32	92.74	95.96	83.31	94.88	87.65
Dave Johnston 4	83.61	75.41	86.86	95.18	75.54	61.00	0.00	57.79	67.00	82.49	72.62	96.27	94.29	89.84	93.67	79.92	91.15	97.59	94.70	86.54	81.23	77.45	87.81	99.15	92.44	98.22	84.71

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	1.047	1.042	1.048	1.054	1.077	1.034	1.056	1.064	1.056	1.067	1.056	1.059	1.222	0.996	0.992	1.004	1.017	1.015	1.030	1.037	1.067	1.064	1.054	1.070	1.041	1.006	1.012
Dave Johnston 2	1.033	1.036	1.037	1.042	1.037	1.037	1.038	1.080	1.056	1.060	1.067	1.053	1.058	1.035	1.041	1.049	1.043	1.050	1.040	1.027	1.046	1.056	1.059	1.061	1.037	1.021	1.029
Dave Johnston 3	1.002	0.997	1.033	1.025	1.006	1.077	1.004	1.028	1.022	1.050	1.047	1.033	1.023	1.030	1.040	1.043	1.033	1.052	1.030	1.047	1.052	1.060	1.063	1.054	1.056	1.019	1.033
Dave Johnston 4	1.041	1.059	1.036	1.033	1.055	1.050	1.000	1.034	1.103	1.026	1.069	1.019	1.011	1.009	1.009	1.012	1.022	1.011	1.012	1.016	1.050	1.038	1.013	1.006	1.005	0.999	1.015

MONTHLY PM EMISSIONS (CAPABLE OF ACCOMODATING) -TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	16	15	16	15	15	8	8	8	7	7	8	6	1	8	8	8	8	61	53	60	37	56	58	56	54	60	62
Dave Johnston 2	9	9	10	10	9	23	22	24	22	23	22	22	19	21	20	22	21	19	11	20	19	19	19	17	16	18	17
Dave Johnston 3	29	29	28	29	26	13	16	12	20	20	20	20	21	20	21	20	19	28	44	46	50	49	50	50	45	48	45
Dave Johnston 4	48	44	52	57	41	38	0	34	37	47	74	90	91	83	91	80	83	91	85	80	76	73	112	119	114	118	105
Dave Johnston Totals	101	97	106	110	91	82	45	77	86	97	124	139	132	131	140	130	131	200	194	206	182	196	239	242	228	243	229

ANNUAL PM EMISSIONS (CAPABILE OF ACCOMODATING) - TONS

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																							270	289	311	334
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																							215	219	223	227
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																							341	349	358	367
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																							813	846	883	909
Dave Johnston Totals																								1,639	1,703	1,776	1,837

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING MINUS PAST ACTUAL TONS)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																							12	13	12	12
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																							10	10	10	10
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																							12	14	14	14
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																							21	20	19	19
Dave Johnston Totals																								55	56	55	56

Table DJ - 5
Dave Johnston PM Emissions Evaluation

PAST ACTUAL MONTHLY Heat Input from CEM- MMBtu

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
887,613	793,559	862,736	799,533	796,213	510,464	875,697	790,628	759,498	939,813	912,058	940,878	872,609	843,575	852,904	879,017	898,648	851,332	864,772	845,102	856,530	832,375	814,898	909,330	930,155	808,528	908,806
858,475	756,779	751,196	804,862	845,923	816,327	888,851	899,942	851,153	875,693	844,639	880,710	883,430	798,527	923,586	856,839	891,522	848,902	879,763	883,641	868,062	884,863	862,874	873,509	878,048	767,119	51,353
1,563,409	1,600,760	1,832,992	1,736,630	0	1,233,347	1,677,105	1,842,953	1,466,158	1,920,179	1,708,914	1,785,167	1,780,608	1,616,737	1,682,034	1,710,615	1,468,702	1,699,082	1,612,449	1,758,656	1,704,793	1,856,805	1,885,075	1,945,134	1,670,192	1,628,678	1,883,465
2,427,887	2,468,116	2,528,088	722,727	2,442,836	2,709,570	2,912,463	3,019,038	2,688,141	3,333,738	2,788,847	3,146,888	2,928,298	2,891,035	2,502,726	2,900,980	2,654,024	2,776,580	2,406,900	2,832,028	2,896,399	2,494,366	3,118,490	3,230,964	3,307,097	2,429,874	2,804,144
5,737,384	5,619,214	5,975,012	4,063,752	4,084,972	5,269,708	6,354,116	6,552,561	5,764,950	7,069,423	6,254,458	6,753,643	6,464,945	6,149,874	5,961,250	6,347,451	5,912,896	6,175,896	5,763,884	6,319,427	6,325,784	6,068,409	6,681,337	6,958,937	6,785,492	5,634,199	5,647,768

MONTHLY PM EMISSION RATES lb/MMBtu (average 1999-2006 Method 5 test results)

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
0.136	0.136	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.005
0.043	0.043	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
0.054	0.054	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
0.088	0.088	0.088	0.088	0.088	0.088	0.088	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.081	0.081	0.081	0.081	0.081	0.081	0.081

BASELINE ACTUAL PM EMISSIONS (calculated by multiplying montly HI by the tested PM emission rate)

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
60	54	21	20	20	13	21	19	19	23	22	23	21	21	3	4	4	3	3	3	3	3	3	4	4	3	2
18	16	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	0
42	43	12	11	0	8	11	12	10	12	11	12	12	11	4	4	4	4	4	4	4	5	5	5	4	4	5
107	109	111	32	107	119	128	82	73	90	75	85	79	78	68	78	72	75	65	76	117	101	126	131	134	98	114
228	222	147	65	130	143	164	116	104	129	112	123	115	112	77	88	81	85	75	86	127	111	136	142	144	108	121

PAST ACTUAL ANNUAL PM EMISSIONS - TONS (24-month average divided by 2)

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
345	365	372	378	384	387	395	401	407	418	426	433	440	447	418	394	367	351	327	301	277	252	224	196	167	142	133
221	225	216	206	197	188	179	170	161	153	145	137	127	119	111	107	98	90	83	75	68	61	53	46	38	31	30
359	368	367	365	359	353	349	345	341	337	332	328	325	321	309	290	270	248	227	206	184	165	144	125	106	86	83
917	951	989	1,005	1,042	1,085	1,126	1,132	1,124	1,124	1,121	1,118	1,118	1,117	1,105	1,102	1,099	1,100	1,097	1,080	1,080	1,074	1,078	1,092	1,106	1,101	1,102
1,842	1,909	1,944	1,954	1,982	2,013	2,049	2,049	2,033	2,033	2,024	2,016	2,010	2,003	1,943	1,893	1,833	1,790	1,734	1,662	1,608	1,553	1,500	1,459	1,417	1,360	1,346

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
95.82	96.45	94.67	94.53	91.38	58.71	95.80	95.64	88.31	98.91	99.72	98.78	91.25	97.21	87.67	93.94	91.70	91.89	87.78	86.59	91.22	86.57	87.59	94.23	96.10	92.71	93.71
93.83	95.93	83.34	95.99	94.47	91.43	88.77	88.81	88.25	90.58	92.04	91.84	90.89	94.65	91.33	89.58	88.84	85.43	83.68	86.10	89.11	89.58	89.29	88.25	87.60	83.49	4.84
81.24	93.30	95.58	91.95	-0.33	59.24	80.90	90.24	75.95	99.09	95.49	97.20	97.79	95.14	86.30	91.27	74.77	88.60	80.91	88.18	88.83	93.06	96.47	96.90	84.71	90.89	95.89
86.69	96.91	88.08	24.30	85.62	93.60	92.19	93.38	84.88	95.55	79.07	91.61	84.45	90.81	69.95	86.11	76.20	87.19	73.75	85.76	89.14	70.79	89.22	86.25	86.57	70.46	82.79

EQUIVALENT AVAILABILITY % (represents what the output of the unit could have provided if there had been demand for the unit's output)

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
98.78	99.04	97.52	98.78	97.65	61.00	98.58	98.61	90.57	99.60	99.99	99.88	92.52	98.59	91.24	96.92	96.24	95.01	91.99	90.80	95.56	89.69	92.47	96.99	98.32	96.34	96.49
96.90	98.43	98.24	98.76	97.95	96.45	94.27	94.07	91.98	93.65	97.67	95.69	94.83	98.72	94.68	92.20	93.15	89.78	87.91	90.82	93.85	93.62	94.18	91.76	91.36	88.75	5.47
85.96	96.27	98.26	95.41	0.00	63.07	85.02	95.17	80.03	99.59	99.26	99.29	99.05	96.68	88.80	96.28	79.24	94.12	84.65	92.71	93.38	94.43	99.49	99.07	87.52	93.26	97.75
87.26	97.39	89.90	25.63	86.70	94.74	94.20	95.17	86.81	96.63	82.76	94.50	87.99	92.68	73.04	90.99	78.93	89.72	76.37	87.90	91.52	74.04	91.30	88.52	88.72	72.81	85.49

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Factor)

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
1.031	1.027	1.030	1.045	1.069	1.039	1.029	1.031	1.026	1.007	1.003	1.011	1.014	1.014	1.041	1.032	1.049	1.034	1.048	1.049	1.048	1.036	1.056	1.029	1.023	1.039	1.030
1.033	1.026	1.179	1.029	1.037	1.055	1.062	1.059	1.042	1.034	1.061	1.042	1.043	1.043	1.037	1.029	1.049	1.051	1.050	1.055	1.053	1.045	1.055	1.040	1.043	1.063	1.131
1.058	1.032	1.028	1.038	1.000	1.065	1.051	1.055	1.054	1.005	1.039	1.022	1.013	1.016	1.029	1.055	1.060	1.062	1.046	1.051	1.051	1.015	1.031	1.022	1.033	1.026	1.019
1.007	1.005	1.021	1.055	1.013	1.012	1.022	1.019	1.023	1.011	1.047	1.032	1.042	1.021	1.044	1.057	1.036	1.029	1.036	1.025	1.027	1.046	1.023	1.026	1.025	1.033	1.033

MONTHLY PM EMISSIONS (CAPABLE OF ACCOMODATING) -TONS

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
62	55	22	20	21	13	22	20	19	23	22	23	22	21	4	4	4	4	4	4	4	3	3	4	4	3	2
19	17	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	0
45	45	12	12	0	9	11	13	10	13	12	12	12	11	4	5	4	5	4	5	4	5	5	5	4	4	5
108	109	114	34	109	121	131	83	74	91	79	88	82	80	71	83	74	77	67	78	120	106	129	134	137	102	117
233	226	151	69	133	145	168	119	106	130	116	126	119	114	81	93	84	87	77	89	131	116	140	145	148	111	125

ANNUAL PM EMISSIONS (CAPABILE OF ACCOMODATING) - TONS

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
358	378	385	392	398	401	409	415	422	433	440	448	455	461	432	408	379	363	337	309	283	258	230	201	172	146	136
232	236	226	216	206	197	187	178	168	160	151	142	133	124	115	111	102	94	86	78	70	64	56	48	40	32	31
374	383	383	381	375	369	364	361	356	352	347	343	339	335	323	303	282	259	237	214	191	171	150	130	109	89	86
935	968	1,006	1,023	1,061	1,102	1,145	1,149	1,141	1,141	1,139	1,137	1,138	1,137	1,126	1,125	1,122	1,123	1,120	1,103	1,104	1,100	1,106	1,120	1,135	1,132	1,134
1,899	1,966	2,000	2,012	2,040	2,069	2,105	2,102	2,086	2,085	2,078	2,070	2,065	2,056	1,997	1,947	1,886	1,839	1,779	1,704	1,649	1,593	1,541	1,499	1,456	1,399	1,386

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODATING MINUS PAST ACTUAL TONS)

Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
13	13	13	14	14	14	14	14	14	14	14	15	15	15	14	14	13	12	10	9	7	6	6	5	5	4	4
10	10	10	10	9	9	8	7	7	6	6	6	5	5	5	4	4	4	3	3	3	2	2	2	2	2	1
15	16	15	16	16	16	15	15	15	15	15	15	14	14	13	13	12	11	10	8	7	6	6	5	4	3	3
18	17	17	18	18	17	18	17	17	17	18	19	20	20	21	23	23	23	22	23	24	26	27	28	30	31	32
57	57	57	58	57	56	56	54	53	52	53	54	54	54	53	54	52	49	45	43	40	40	41	41	40	40	40

Table DJ - 5
Dave Johnston PM Emissions Evaluation

PAST ACTUAL MONTHLY Heat Input from CEM- MMBtu

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
882,222	669,094	843,247	871,993	887,351	857,352
373,565	850,987	908,999	950,525	959,272	935,049
1,816,071	1,777,689	1,666,793	1,844,154	1,702,079	1,738,721
3,140,705	3,116,798	2,958,429	2,966,380	2,877,134	1,985,973
6,212,563	6,414,568	6,377,468	6,633,051	6,425,837	5,517,095

MONTHLY PM EMISSION RATES lb/MMBtu (average 1999-2006 Method 5 te

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
0.005	0.005	0.005	0.005	0.005	0.005
0.005	0.002	0.002	0.002	0.002	0.002
0.005	0.013	0.013	0.013	0.013	0.013
0.081	0.081	0.081	0.081	0.098	0.098

BASELINE ACTUAL PM EMISSIONS (calculated by multiplying montly HI by

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
2	2	2.1	2	2	2
1	1	1	1	1	1
5	12	11	12	11	11
127	126	120	120	141	97
135	140	134	135	155	112

PAST ACTUAL ANNUAL PM EMISSIONS - TONS (24-month average div

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
124	115	110	100	92	83
29	28	27	25	24	23
79	85	86	87	87	87
1,149	1,159	1,159	1,155	1,185	1,197
1,381	1,386	1,382	1,368	1,387	1,391
		Maximum 12 month ave based on 24-month period			2,049

CAPACITY FACTOR % (represents unit's output as a percent of what it's

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
93.96	65.11	88.87	88.25	88.84	90.02
37.02	84.59	94.50	94.61	94.61	96.30
96.32	89.11	86.18	91.27	84.56	90.17
93.54	90.49	90.73	87.85	82.50	64.74

EQUIVALENT AVAILABILITY % (represents what the output of the unit co

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
96.31	68.17	92.97	92.32	92.98	93.18
39.84	87.02	97.57	98.10	98.19	99.10
98.30	93.21	91.43	95.08	87.64	93.47
94.97	91.96	92.78	90.07	84.48	68.36

DEMAND GROWTH ADJUSTMENT (Equivalent Availability/Capacity Facto

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
1.025	1.047	1.046	1.046	1.047	1.035
1.076	1.029	1.032	1.037	1.038	1.029
1.021	1.046	1.061	1.042	1.036	1.037
1.015	1.016	1.023	1.025	1.024	1.056

MONTHLY PM EMISSIONS (CAPABLE OF ACCOMODATING) -TONS

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
2	2	2	2	2	2
1	1	1	1	1	1
5	12	11	12	11	12
129	128	123	123	144	103
137	143	137	139	159	118

ANNUAL PM EMISSIONS (CAPABILE OF ACCOMODATING) - TONS

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
127	118	112	102	93	85
30	29	28	27	25	24
82	88	90	90	89	90
1,181	1,191	1,192	1,188	1,219	1,233
1,420	1,425	1,421	1,407	1,427	1,433
			Maximum Demand Growth Adjustment		2,105

DEMAND GROWTH ADJUSTMENT (ANNUAL CAPABLE OF ACCOMODAT

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
3	3	2	2	2	2
1	1	1	1	1	1
3	3	3	3	3	3
32	32	33	33	34	36
39	39	40	39	40	41
			Maximum Demand Growth Adjustment		58

Table DJ-6 Dave Johnston Non-Stack PM_{10} Emission

Data from 2002-2006 Emissions Inventories submitted to Wyoming DEQ

	2002	2003	2004	2005	2006
Description of Emission Unit	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**
1R Feeder, 1 & 11 Conveyors (#1 Track Hopper)	0.0	0.0			
25 Feeder & 25 Conveyor (#2 Track Hopper)	0.0	0.0			
31 & 32 Conveyors, 31 Feeder (#1 Ready Pile)	0.0	0.0			
34 & 34 Conveyors, 33 Feeder (#2 Ready Pile)	0.3	0.2	0.2	0.2	0.18
35 Conveyor, 35 Feeder (#3 Ready Pile)	0.0	0.0	0.0	0.0	0.0
1A Tripper Deck Dust Collector	0.0	0.0	0.0	0.0	0.03
1B Tripper Deck Dust Collector	0.0	0.0	0.0	0.0	0.03
2A Tripper Deck Dust Collector	0.0	0.0	0.0	0.0	0.02
2B Tripper Deck Dust Collector	0.0	0.0	0.0	0.0	0.01
3 Tripper Deck, Conveyor 53	0.4	0.4	0.4	0.4	0.40
3 Tripper Deck, Conveyor 43 discharge & Conveyor 53	1.4	1.5	1.5	1.4	1.59
4A Tripper Deck, Conveyor 55A & Coal Silos	1.8	1.6	1.9	1.9	1.94
4B Tripper Deck, Conveyor 55B, 54B & Coal Silos	1.4	1.2	1.4	1.4	1.46
4 Tripper Deck, Feeders & Conveyors 54A, 54B & 55A	5.8	5.0	6.1	6.1	6.17
Rail Car Load-In Facility (East baghouse)	1.14	1.03	0.99	1.13	1.18
Rail Car Load-In Facility (West baghouse)	1.45	1.30	1.25	1.43	1.49
Overland Conveyor	0.00	0.00	0.00	0.00	0.00
Radial Stacker	0.00	0.00	0.00	0.00	0.00
Coal conveyors & transfer fugitive emissions	0.1	0.0	0.0	0.1	0.05
Active Coal piles fugitive emissions	24.8	24.8	24.8	31.1	31.06
Inactive Coal piles fugitive emissions	19.9	19.9	19.9	24.8	24.85
Fly ash silo truck loading	0.2	0.2	0.1	0.1	0.13
Ash haul road	2.8	2.7	1.9	1.8	1.99
Ash dumping at landfill	0.2	0.2	0.1	0.1	0.13
Ash landfill, wind erosion	56.8	56.8	56.8	71.0	70.99
Cooling tower Units 1,2,3	15.1	14.8	14.9	15.9	16.46
Cooling tower Unit #4	145.4	125.0	146.0	143.4	149.35
Unit 4 Lime Silo Baghouse	0.7	0.6	0.7	0.7	0.72
Emergency diesel generator Units 1, 2, & 3	0.03	0.03	0.03	0.06	0.06
Emergency diesel generator Units 4	0.02	0.02	0.02	0.05	0.05
Scrubber emergency diesel generator Unit 4	0.02	0.02			
Diesel fire water booster pump	0.01	0.01	0.01	0.01	0.01
Total PM_{10}	**280**	**257**	**279**	**303**	**310**
Maximum Non-stack PM_{10}	**310**				

Table DJ-7
Dave Johnston CO Emissions Evaluation

Carbon Monoxide emission Factor AP-42, Table 1.1-3, 9/98 0.5 lb/ton
CO emissions (tons/year) = EPA emission factor * coal consumption

CO Emissions (tons/year)

Baseline Actual annual coal consumption (based on past actual annual coal consumption, Table DJ-4)	4,031,217	**Past Actual CO Emissions**	1,008	tons/year
Potential to Emit coal consumption (based on potential past actual annual coal xonsumption, Table DJ-4))	4,167,087	**Potential to Emit CO Emissions**	1,042	tons/year

	Projected Actual coal consumption (based on coal burned adjusted for 100% capacity factor, Table DJ-7)	**Maximum Hourly Heat Input**	**Projected CO Emission Rate lb/MMBtu**	**Projected CO Emission, tons/yr**
Dave Johnston 1	629,819	*--- calculated using AP-42 Emission factor --->*		157
Dave Johnston 2	637,664	*--- calculated using AP-42 Emission factor --->*		159
Dave Johnston 3	[redacted]	2,800	0.25	3,066
Dave Johnston 4	[redacted]	4,700	0.20	4,117
			Dave Johnston total	7,500

Table DJ-8
Dave Johnston VOC Emissions Evaluation

VOC emission Factor AP-42, Table 1.1-3, 9/98 0.06 lb/ton
VOC emissions (tons/year) = EPA emission factor * coal consumption

Equation for Calculating Plant VOC Emissions:
(AP-42 VOC Emission Factor (lbs VOC/tons of coal burned))*(tons of coal burned/year)*(1 ton/2000 lbs) = tons of VOC emitted/year

Past VOC Emissions (tons/year)

Baseline Actual annual coal consumption (based on past actual annual coal consumption, Table DJ-4)	4,031,217	**Past Actual VOC Emissions**	121	tons/year
Potential to Emit annual coal consumption (based on potential past actual annual coal xonsumption, Table DJ-	4,167,087	**EA adjusted VOC Emissions**	125	tons/year
Projected Actual annual coal consumption (based on coal burned adjusted for 100% capacity factor, Table DJ-13)	4,635,894	**EA adjusted VOC Emissions**	139	tons/year

Table DJ-9
Dave Johnston Lead Emissions Evaluation

Lead emissions calculated using AP-42 Table 1.1-16 9/98

Lead emissions (lb/year) = $3.4 * (C/A * PM)^{0.80} * HI$

C = 2.33 milligrams/kilogram (lead concentration in coal) (Coal trace element analyses, 2003)
A = 5% (percent ash in coal) (Coal trace element analyses, 2003)
PM = Average particulate matter emission rate (DJ-5)
HI = heat input (DJ-3)

Baseline Actual (tons/year)

Plant Name	Heat Input MMBtu/year[1]	lbs/yr	tons/yr	Average PM_{10} Emission Rates for Highest Heat Input 24 month period (DJ-5)
Dave Johnston 1	10,289,006	120	0.06	0.100
Dave Johnston 2	9,794,125	41	0.02	0.028
Dave Johnston 3	20,865,552	109	0.05	0.037
Dave Johnston 4	34,666,434	364	0.18	0.088
Dave Johnston total	75,615,117	635	0.32	

[1] DJ-3 Heat Input

Potential to Emit (tons/year)

Plant Name	Heat Input MMBtu/year[2]	lbs/yr	tons/yr	Average PM_{10} Emission Rates for Highest Heat Input 24 month period (DJ-5)
Dave Johnston 1	10,619,911	123	0.06	0.100
Dave Johnston 2	10,242,581	43	0.02	0.028
Dave Johnston 3	21,612,788	113	0.06	0.037
Dave Johnston 4	35,675,919	375	0.19	0.088
Dave Johnston total	78,151,199	655	0.33	

[2] DJ-3 Heat Input, Capable of Accomodating

Projected Actual (tons/year)

	Projected Actual Heat Input at 100% Capacity Factor MMBtu/yr	lbs/yr	tons/yr	Predicted PM Emission Rate lb/MMBtu[a] (U1/2-Max PM from Testing) (U3/4-Predicted PM)
Dave Johnston 1[3]	11,340,026	169	0.08	0.136
Dave Johnston 2[3]	11,780,692	79	0.04	0.050
Dave Johnston 3[4]	24,528,000	63	0.03	0.015
Dave Johnston 4[5]	41,172,000	105.11	0.05	0.015
Dave Johnston total	88,820,719	415.4	0.21	

[3] Table DJ-6, Heat Input at 100% Capacity Factor

[4] Maximum Heat Input = 2800 MMBtu/hr

[5] Maximum Heat Input = 4700 MMBtu/hr

Table DJ - 10
Dave Johnston Fluoride Emissions Evaluation

$M_{HF} = F_{comb}$ x 2000 lb/ton x C_{HF} x $1/10^6$ x F_{acid}

Where:

M_{HF} =	Manufacture of Hydrogen Fluoride, lb/year		
F_{comb} =	Coal combustion, tons/year		
F_{comb} =	574,815	tons/year (Unit 1)	
F_{comb} =	532,455	tons/year (Unit 2)	
F_{comb} =	1,239,640	tons/year (Unit 3)	
F_{comb} =	1,684,307	tons/year (Unit 4)	
C_{HF} =	60.33	Fluoride concentration in coal, ppm (concentration occuring during maximum coal consumption period)	
F_{acid} =	M_{HF}/M_F	Acid conversion factor: ratio of molecular weights, compound/parent chemical	
M_F =	18.9984	Molecular weight of fluorine	
M_{HF} =	20.0063	Molecular weight of hydrogen fluoride	
F_{acid} =	1.053053932		
AR =	Annual release of hydrogen fluoride, lb/year		
E_{HF} =	90%	HF emission factor for bituminous coal	
EF_{FGD} =	6%	HF emission factor for FGD systems	
$EF_{No\ FGD}$ =	50%	HF emission factor without FGD, sub bituminus	

Note: Maximum annual coal burn rates
Table DJ-4

$AR_{FGD\ Removal} = (1.0 - F_{Bypass}) \times E_{FGD} \times M_{HF}$
$AR_{Bypass} = F_{Bypass} \times EF_{NoFGD} \times M_{HF}$
$AR_{Total} = AR_{FGD\ Removal} + AR_{Bypass}$

Historical Coal Fluoride Concentrations (Parts Per Million)
(From Emission Tables)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Highest 1996-2006 Fluoride Concentration (ppm)
DJ-1				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33
DJ-2				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33
DJ-3				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33
DJ-4				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33

Calculation Method:

EPRI LARK-TRIPP *Calculation and Methods for Threshold Determination and Release Estimates*
HF Emission Factor with FGD System: 6%
Bituminous Coal Emission Factor: 90%
(Table 5-1 Emission Factors for HCL and HF)

Maximum Annual Coal Burn Rate

	Annual Coal Burn Rate
DJ-1	574,815
DJ-2	532,455
DJ-3	1,239,640
DJ-4	1,684,307

Note: Maximum annual coal burn rates
Table DJ-4

U1: F_{Bypass} = 0.00 (0% Scrubber Bypass)
U2: F_{Bypass} = 0.00 (0% Scrubber Bypass)
U3: F_{Bypass} = 0.00 (0% Scrubber Bypass)
U4: F_{Bypass} = 0.00 (0% Scrubber Bypass)

M_{HF} = 36.5 tons/year (Unit 1 HF manufacture)
M_{HF} = 33.8 tons/year (Unit 2 HF manufacture)
M_{HF} = 78.8 tons/year (Unit 3 HF manufacture)
M_{HF} = 107.0 tons/year (Unit 3 HF manufacture)

$AR_{No\ FGD\ Removal} = (1.0 - F_{Bypass}) \times EF_{No\ FGD} \times M_{HF}$
$AR_{FGD\ Removal} = (1.0 - F_{Bypass}) \times EF_{FGD} \times M_{HF}$

$AR_{No\ FGD\ Removal}$ = 18.3 tons/year Unit 1 stack air release
$AR_{No\ FGD\ Removal}$ = 16.9 tons/year Unit 2 stack air release
$AR_{No\ FGD\ Removal}$ = 39.4 tons/year Unit 3 stack air release
$AR_{FGD\ Removal}$ = 6.4 tons/year Unit 4 stack air release

AR_{Total} = 81.0 tons/year (Baseline Actual Hydrogen Fluoride Emissions)

DJ-11
Dave Johnston H2SO4 Emissions Evaluation
Baseline Actual

Facility: Dave Johnston
Emission Unit: Steam generating unit (primary fuel, coal)
ID # : 1, 2, 3, & 4

H_2SO_4 Summary	(lbs/yr)	(tons/yr)
Unit 1	8,659	4.3
Unit 2	8,349	4.2
Unit 3	19,438	9.7
Unit 4	7,145	3.6
Total	43,591	21.8

	Unit 1	Unit 2	Unit 3	Unit 4
SO_2 from CEM, tons (SO2 emissions from DJ-1)	3,841.7	3,704.4	8,624.1	5,785.8
SCR	N	N	N	N
FGC SO_3 Injection	N	N	N	N

Next use Eqn. 5-8 to determine the total quantity of H_2SO_4 manufactured from combustions, E1
Fuel Impact Factors, F1, are obtained from Table 1 of Appendix B.

E1 = K x F1 x E2				
K, molecular weight and units conversion constant	3063	3063	3063	3063
$F1_{coal}$, Sub. PC Boiler	0.0018	0.0018	0.0018	0.0018
E2, Sulfur dioxide emissions, CEM	3,841.7	3,704.4	8,624.1	5,785.8
$E1_{total}$	**21,181.1**	**20,423.8**	**47,548.0**	**31,899.2**

Next use Eqn. 5-9 to determine the quantity of H_2SO_4 released, E1'
Technology Impact Factor, F2, are found in Table 3 of Appendix B.

$E1'_{comb}$ = K x F1 x E2 x $F2_X$				
$F2_X$, F2 for applicable $F2_S$ other than scrubber				
$F2_X$ for Air preheater - wstrn sub	0.56	0.56	0.56	0.56
$F2_X$ for Cold Side ESP	0.73	0.73	0.73	1
$F2_X$ for Wet Spray Tower, PRB, Lignite	1	1	1	0.4
$E1'_{comb}$	**8,658.8**	**8,349.3**	**19,437.6**	**7,145.4**

DJ-11
Dave Johnston H2SO4 Emissions Evaluation
Potential to Emit

Facility: Dave Johnston
Emission Unit: Steam generating unit (primary fuel, coal)
ID # : 1, 2, 3, & 4

H_2SO_4 Summary	(lbs/yr)	(tons/yr)
Unit 1	8,952	4.5
Unit 2	8,716	4.4
Unit 3	20,115	10.1
Unit 4	7,362	3.7
Total	45,145	22.6

	Unit 1	Unit 2	Unit 3	Unit 4
SO_2 from CEM, tons(SO2 emissions from DJ-1)	3,971.7	3,867.2	8,924.6	5,961.0
SCR	N	N	N	N
FGC SO_3 Injection	N	N	N	N

Next use Eqn. 5-8 to determine the total quantity of H_2SO_4 manufactured from combustions, E1
Fuel Impact Factors, F1, are obtained from Table 1 of Appendix B.

E1 = K x F1 x E2				
K, molecular weight and units conversion constant	3063	3063	3063	3063
$F1_{coal}$, Sub. PC Boiler	0.0018	0.0018	0.0018	0.0018
E2, Sulfur dioxide emissions, CEM	3,971.7	3,867.2	8,924.6	5,961.0
$E1_{total}$	**21,897.4**	**21,321.3**	**49,205.0**	**32,865.3**

Next use Eqn. 5-9 to determine the quantity of H_2SO_4 released, E1'
Technology Impact Factor, F2, are found in Table 3 of Appendix B.

$E1'_{comb}$ = K x F1 x E2 x $F2_X$				
$F2_X$, F2 for applicable $F2_S$ other than scrubber				
$F2_X$ for Air preheater - wstrn sub	0.56	0.56	0.56	0.56
$F2_X$ for Cold Side ESP	0.73	0.73	0.73	1
$F2_X$ for Wet Spray Tower, PRB, Lignite	1	1	1	0.4
$E1'_{comb}$	**8,951.7**	**8,716.2**	**20,115.0**	**7,361.8**

DJ-11
Dave Johnston H2SO4 Emissions Evaluation
Projected Actual

Facility: Dave Johnston
Emission Unit: Steam generating unit (primary fuel, coal)
ID # : 1, 2, 3, & 4

H_2SO_4 Summary	(lbs/yr)	(tons/yr)
Unit 1	9,560	5
Unit 2	9,955	5
Unit 3	322	0
Unit 4	422	0
Total	20,259	10

	Unit 1	Unit 2	Unit 3	Unit 4
E2, SO_2 from CEM, tons (DJ-17, SO2 Emissions adjusted for 100%	4,241.6	4,416.9	-	-
SO2 Production Estimated from Fuel Burn Data E2=K1 x K2 x C1 x S1				
C1=Fuel Burn, tons/yr (DJ-13, Coal burned, adjusted for 100% C	-	-	1,370,479	1,997,932
S1=Fuel sulfur weighted average, %	-	-	0.40	0.36
K1=Molecular weight, 0.02	-	-	0.02	0.02
K2=Sulfur Conversion to SO2 for Bituminous coals	-	-	0.95	0.95
E2=SO_2 from Coal Burned tons	-	-	10,415.64	13,665.85
SCR	N	N	N	N
FGC SO_3 Injection	N	N	Y	Y

Next use Eqn. 5-8 to determine the total quantity of H_2SO_4 manufactured from combustions, E1
Fuel Impact Factors, F1, are obtained from Table 4-1.

E1 = K x F1 x E2				
K, molecular weight and units conversion constant	3063	3063	3063	3063
$F1_{coal}$, Sub. PC Boiler	0.0018	0.0018	0.0018	0.0018
E2, Sulfur dioxide emissions	4,241.6	4,416.9	10,415.6	13,665.9
$E1_{total}$	**23,385.4**	**24,352.1**	**57,425.6**	**75,345.3**

Next use Eqn. 5-9 to determine the quantity of H_2SO_4 released, E1'
Technology Impact Factor, F2, are found in Table 3 of Appendix B.

$E1'_{comb}$ = [SBf + (1 - SBf) x F2s] x K x F1 x E2 x $F2_X$				
SB_f, FGD Bypass, fraction	1	1	1	1
$F2_S$, F2 for Scrubber	0.5	0.5	0.5	0.5
$F2_X$, F2 for applicable $F2_S$ other than scrubber				
$F2_X$ for Air preheater - wstrn sub	0.56	0.56	0.56	0.56
$F2_X$ for Cold Side ESP	0.73	0.73	1	1
$F2_X$ for Dry FGD and Baghouse	1	1	0.01	0.01
$F2_X$ for Wet Scrubber	1	1	1	1
$E1'_{comb}$	9,559.9	9,955.1	321.6	421.9

	Emission Data Summary Sheets					
Weight percent sulfur in coal, %	**2002**	**2003**	**2004**	**2005**	**2006**	**Maximum**
Unit 3	0.33	0.37	0.4	0.4	0.4	0.4
Unit 4	0.34	0.35	0.32	0.36	0.36	0.36

PAST ACTUAL MONTHLY Heat Input from CEM- MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	856,431	844,024	859,980	796,191	771,495	830,992	794,081	790,058	755,565	705,789	814,907	636,508	64,361	865,233	898,989	850,065	839,265	889,113	761,050	854,608	510,887	768,919
Dave Johnston 2	795,108	865,625	896,770	893,942	822,671	876,102	850,915	870,506	818,261	865,149	824,134	852,348	727,099	807,422	780,342	853,560	805,081	847,368	490,199	891,457	830,876	823,457
Dave Johnston 3	1,804,474	1,821,648	1,715,572	1,778,662	1,644,492	1,132,635	1,422,374	1,099,774	1,822,212	1,763,400	1,701,982	1,755,382	1,852,475	1,765,454	1,792,281	1,728,809	1,704,463	983,972	1,590,540	1,621,163	1,767,719	1,700,796
Dave Johnston 4	2,410,268	2,165,148	2,641,791	2,893,136	2,067,922	1,900,922	0	1,718,614	1,766,980	2,387,031	2,211,376	2,809,332	2,851,882	2,595,128	2,876,375	2,518,036	2,581,635	2,869,238	2,678,826	2,500,662	2,286,693	2,235,030
Dave Johnston Totals	5,866,281	5,696,445	6,114,113	6,361,931	5,306,580	4,740,651	3,067,370	4,478,952	5,163,018	5,721,369	5,552,399	6,053,570	5,495,817	6,033,237	6,347,987	5,950,470	5,930,444	5,589,691	5,520,615	5,867,890	5,396,175	5,528,202

PAST ACTUAL ANNUAL HEAT INPUT(based on 24-Month Rolling Average) - MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston Totals																						

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	91.60	93.95	92.29	84.38	91.11	89.77	89.23	84.36	85.65	76.40	87.32	78.84	5.83	99.99	99.41	92.62	97.68	97.80	86.75	92.41	60.20	88.96
Dave Johnston 2	94.78	94.78	94.14	93.07	94.59	91.36	92.33	87.90	91.23	89.38	84.09	92.28	79.72	94.76	94.05	92.38	90.96	93.03	55.12	96.31	94.01	88.75
Dave Johnston 3	95.34	98.78	87.94	91.77	94.80	57.59	77.31	56.25	96.07	89.22	86.37	93.57	96.63	95.78	91.95	88.74	94.47	49.16	83.47	81.95	93.12	84.27
Dave Johnston 4	80.32	71.23	83.82	92.10	71.58	58.10	-0.27	55.90	60.72	80.43	67.90	94.44	93.23	89.00	92.83	78.96	89.19	96.56	93.55	85.16	77.37	74.63

CORRECTION TO 100% CAPACITY FACTOR [(1/CAPACITY FACTOR)*100]

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	1.09	1.06	1.08	1.19	1.10	1.11	1.12	1.19	1.17	1.31	1.15	1.27	17.15	1.00	1.01	1.08	1.02	1.02	1.15	1.08	1.66	1.12
Dave Johnston 2	1.06	1.06	1.06	1.07	1.06	1.09	1.08	1.14	1.10	1.12	1.19	1.08	1.25	1.06	1.06	1.08	1.10	1.07	1.81	1.04	1.06	1.13
Dave Johnston 3	1.05	1.01	1.14	1.09	1.05	1.74	1.29	1.78	1.04	1.12	1.16	1.07	1.03	1.04	1.09	1.13	1.06	2.03	1.20	1.22	1.07	1.19
Dave Johnston 4	1.25	1.40	1.19	1.09	1.40	1.72	-370.73	1.79	1.65	1.24	1.47	1.06	1.07	1.12	1.08	1.27	1.12	1.04	1.07	1.17	1.29	1.34

MONTHLY HEAT INPUT (100% CAPACITY FACTOR) - MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	934,975	898,346	931,818	943,584	846,766	925,654	889,923	936,513	882,155	923,794	933,202	807,337	1,103,711	865,290	904,344	917,796	859,167	909,078	877,247	924,829	848,624	864,384
Dave Johnston 2	838,918	913,300	952,574	960,554	869,689	958,944	921,646	990,343	896,930	967,981	980,028	923,642	912,093	852,069	829,705	924,011	885,142	910,857	889,334	925,623	883,859	927,849
Dave Johnston 3	1,892,603	1,844,117	1,950,751	1,938,085	1,734,762	1,966,770	1,839,861	1,955,281	1,896,815	1,976,413	1,970,646	1,875,957	1,917,075	1,843,148	1,949,097	1,948,142	1,804,218	2,001,647	1,905,521	1,978,290	1,898,299	2,018,345
Dave Johnston 4	3,000,888	3,039,612	3,151,818	3,141,311	2,889,017	3,271,630	0	3,074,548	2,910,202	2,967,803	3,256,678	2,974,786	3,059,054	2,915,916	3,098,394	3,188,814	2,894,528	2,971,545	2,863,615	2,936,552	2,955,547	2,994,938
Dave Johnston Totals	6,667,385	6,695,376	6,986,961	6,983,534	6,340,234	7,122,998	3,651,430	6,956,686	6,586,103	6,835,990	7,140,555	6,581,722	6,991,934	6,476,422	6,781,540	6,978,764	6,443,055	6,793,127	6,535,716	6,765,294	6,586,330	6,805,517

ANNUAL HEAT INPUT (100% CAPACITY FACTOR) - MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston Totals																						

Table DJ - 12
Dave Johnston Heat Input Adjusted for 100% Capacity Factor

PAST ACTUAL MONTHLY Heat Input from CEM- MMBtu

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
805,844	763,921	761,638	870,352	899,059	887,613	793,559	862,736	799,533	796,213	510,464	875,697	790,628	759,498	939,813	912,058	940,878	872,609	843,575	852,904	879,017
827,020	751,571	706,844	839,818	774,083	858,475	756,779	751,196	804,862	845,923	816,327	888,851	899,942	851,153	875,693	844,639	880,710	883,430	798,527	923,586	856,839
1,747,452	1,764,582	1,575,157	1,727,127	1,623,855	1,563,409	1,600,760	1,832,992	1,736,630	0	1,233,347	1,677,105	1,842,953	1,466,158	1,920,179	1,708,914	1,785,167	1,780,608	1,616,737	1,682,034	1,710,615
2,521,138	2,680,320	2,565,823	2,673,697	2,341,411	2,427,887	2,468,116	2,528,088	722,727	2,442,836	2,709,570	2,912,463	3,019,038	2,688,141	3,333,738	2,788,847	3,146,888	2,928,298	2,891,035	2,502,726	2,900,980
5,901,454	5,960,394	5,609,462	6,110,994	5,638,408	5,737,384	5,619,214	5,975,012	4,063,752	4,084,972	5,269,708	6,354,116	6,552,561	5,764,950	7,069,423	6,254,458	6,753,643	6,464,945	6,149,874	5,961,250	6,347,451

PAST ACTUAL ANNUAL HEAT INPUT(based on 24-Month Rolling Average) - MMBtu

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
8,782,178	9,164,138	9,116,742	9,129,906	9,149,445	9,195,156	9,206,188	9,222,060	9,224,786	9,227,864	9,105,313	9,190,267	9,178,128	9,239,623	9,677,349	9,700,761	9,721,706	9,732,978	9,735,133	9,717,028	9,776,012
9,457,706	9,833,492	9,789,360	9,776,456	9,715,113	9,697,379	9,664,433	9,601,980	9,578,954	9,566,662	9,565,695	9,577,546	9,615,450	9,614,853	9,689,150	9,707,758	9,757,942	9,772,877	9,769,600	9,807,709	9,991,029
18,858,866	19,741,157	19,626,498	19,579,238	19,533,379	19,425,753	19,403,887	19,754,065	19,911,193	19,361,306	19,066,874	19,023,726	19,094,212	18,949,600	18,983,452	18,955,182	18,951,625	18,977,524	18,933,661	19,282,692	19,342,730
26,743,582	28,083,742	28,161,519	28,415,794	28,265,604	28,032,979	28,233,076	28,546,659	28,908,023	29,270,134	29,741,429	30,004,145	30,407,976	30,347,380	30,588,308	30,685,168	30,820,424	31,025,555	31,180,255	30,996,999	31,108,076
63,842,331	66,822,528	66,694,118	66,901,393	66,663,540	66,351,267	66,507,584	67,124,764	67,622,955	67,425,965	67,479,310	67,795,684	68,295,765	68,151,455	68,938,258	69,048,868	69,251,696	69,508,934	69,618,649	69,804,428	70,217,846

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
89.20	86.43	83.38	98.96	98.26	95.82	96.45	94.67	94.53	91.38	58.71	95.80	95.64	88.31	98.91	99.72	98.78	91.25	97.21	87.67	93.94
90.58	90.26	86.60	96.76	84.32	93.83	95.93	83.34	95.99	94.47	91.43	88.77	88.81	88.25	90.58	92.04	91.84	90.89	94.65	91.33	89.58
87.26	91.05	78.88	93.07	84.84	81.24	93.30	95.58	91.95	-0.33	59.24	80.90	90.24	75.95	99.09	95.49	97.20	97.79	95.14	86.30	91.27
86.70	98.57	91.94	98.32	83.45	86.69	96.91	88.08	24.30	85.62	93.60	92.19	93.38	84.88	95.55	79.07	91.61	84.45	90.81	69.95	86.11

CORRECTION TO 100% CAPACITY FACTOR [(1/CAPACITY FACTOR)*100]

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
1.12	1.16	1.20	1.01	1.02	1.04	1.04	1.06	1.06	1.09	1.70	1.04	1.05	1.13	1.01	1.00	1.01	1.10	1.03	1.14	1.06
1.10	1.11	1.15	1.03	1.19	1.07	1.04	1.20	1.04	1.06	1.09	1.13	1.13	1.13	1.10	1.09	1.09	1.10	1.06	1.09	1.12
1.15	1.10	1.27	1.07	1.18	1.23	1.07	1.05	1.09	-306.52	1.69	1.24	1.11	1.32	1.01	1.05	1.03	1.02	1.05	1.16	1.10
1.15	1.01	1.09	1.02	1.20	1.15	1.03	1.14	4.11	1.17	1.07	1.00	1.07	1.18	1.05	1.26	1.09	1.18	1.10	1.43	1.16

MONTHLY HEAT INPUT (100% CAPACITY FACTOR) - MMBtu

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
903,396	883,853	913,429	879,514	914,989	926,315	822,770	911,303	845,823	871,308	869,398	914,073	826,655	860,077	950,148	914,575	952,485	956,329	867,744	972,844	935,701
913,040	832,630	816,217	867,977	918,004	914,964	788,908	901,408	838,472	895,475	892,887	1,001,290	1,013,321	964,528	966,762	917,660	958,984	971,984	843,664	1,011,311	956,500
2,002,569	1,938,079	1,996,939	1,855,816	1,914,105	1,924,326	1,715,747	1,917,773	1,888,674	0	2,081,776	2,073,061	2,042,208	1,930,374	1,937,855	1,789,593	1,836,683	1,820,879	1,699,336	1,949,135	1,874,169
2,907,816	2,719,150	2,790,875	2,719,410	2,805,675	2,800,618	2,546,796	2,870,192	2,974,010	2,853,035	2,894,952	2,912,463	3,233,216	3,166,878	3,489,083	3,526,992	3,435,029	3,467,521	3,183,708	3,577,738	3,368,976
6,726,821	6,373,712	6,517,460	6,322,716	6,552,773	6,566,224	5,874,221	6,600,676	6,546,979	4,619,818	6,739,013	6,900,888	7,115,400	6,921,857	7,343,848	7,148,819	7,183,181	7,216,713	6,594,452	7,511,028	7,135,347

ANNUAL HEAT INPUT (100% CAPACITY FACTOR) - MMBtu

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
	10,857,893	10,847,120	10,837,704	10,829,289	10,820,654	10,808,657	10,801,481	10,779,431	10,746,829	10,740,450	10,735,590	10,682,316	10,708,686	10,631,905	10,656,547	10,680,618	10,699,884	10,704,172	10,736,055	10,765,283
	10,930,382	10,919,031	10,896,370	10,879,085	10,856,290	10,815,900	10,787,132	10,745,544	10,698,110	10,696,088	10,712,743	10,729,389	10,749,832	10,777,167	10,809,963	10,874,602	10,898,588	10,877,849	10,928,077	10,961,660
	23,023,246	23,075,414	23,081,263	23,062,940	23,056,060	23,046,553	23,022,054	23,046,461	22,068,820	22,161,301	22,209,625	22,245,406	22,272,614	22,283,004	22,256,226	22,200,019	22,136,388	22,083,947	22,057,691	22,042,015
	34,592,082	34,487,075	34,326,974	34,153,903	33,983,556	33,812,446	33,611,726	35,098,732	34,987,975	34,980,350	34,952,680	34,940,949	35,036,996	35,252,010	35,557,548	35,725,866	35,865,219	36,009,808	36,312,905	36,565,585
	79,403,603	79,328,641	79,142,311	78,925,217	78,716,561	78,483,555	78,222,394	79,670,168	78,501,734	78,578,189	78,610,638	78,598,061	78,768,128	78,944,086	79,280,284	79,481,105	79,600,079	79,675,777	80,034,728	80,334,543

Table DJ - 12
Dave Johnston Heat Input Adjusted for 100% Capacity Factor

PAST ACTUAL MONTHLY Heat Input from CEM- MMBtu

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
898,648	851,332	864,772	845,102	856,530	832,375	814,898	909,330	930,155	808,528	908,806	882,222	669,094	843,247	871,993	887,351	857,352
891,522	848,902	879,763	883,641	868,062	884,863	862,874	873,509	878,048	767,119	51,353	373,565	850,987	908,999	950,525	959,272	935,049
1,468,702	1,699,082	1,612,449	1,758,656	1,704,793	1,856,805	1,885,075	1,945,134	1,670,192	1,628,678	1,883,465	1,816,071	1,777,689	1,666,793	1,844,154	1,702,079	1,738,721
2,654,024	2,776,580	2,406,900	2,832,028	2,896,399	2,494,366	3,118,490	3,230,964	3,307,097	2,429,874	2,804,144	3,140,705	3,116,798	2,958,429	2,966,380	2,877,134	1,985,973
5,912,896	6,175,896	5,763,884	6,319,427	6,325,784	6,068,409	6,681,337	6,958,937	6,785,492	5,634,199	5,647,768	6,212,563	6,414,568	6,377,468	6,633,051	6,425,837	5,517,095

PAST ACTUAL ANNUAL HEAT INPUT(based on 24-Month Rolling Average) - MMBtu

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
9,798,032	9,968,254	10,016,181	10,035,810	10,082,114	10,117,483	10,089,756	10,094,891	10,116,162	10,123,647	10,146,682	10,188,026	10,124,467	10,290,858	10,289,006	10,337,367	10,386,294
9,991,062	10,000,075	10,028,228	10,056,538	10,114,784	10,203,793	10,215,321	10,265,034	10,274,821	10,279,991	9,930,069	9,714,421	9,716,953	9,763,289	9,794,125	9,823,791	9,865,739
19,266,499	19,232,181	19,188,007	19,193,609	19,163,715	19,304,539	19,383,513	19,544,152	19,597,544	19,611,503	19,636,739	19,676,460	20,565,304	20,782,027	20,865,552	20,795,115	20,931,396
31,184,757	31,429,701	31,515,636	31,671,081	31,779,120	31,743,392	31,965,788	32,410,565	32,850,170	32,831,049	32,969,077	34,178,066	34,515,047	34,639,476	34,666,434	34,595,482	34,244,398
70,240,349	70,630,210	70,748,051	70,957,037	71,139,732	71,369,206	71,654,377	72,314,642	72,838,696	72,846,188	72,682,566	73,756,972	74,921,770	75,475,650	75,615,117	75,551,755	75,427,828

Maximum 12 month ave based on 24-month period **75,615,117**

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
91.70	91.89	87.78	86.59	91.22	86.57	87.59	94.23	96.10	92.71	93.71	93.96	65.11	88.87	88.25	88.84	90.02
88.84	85.43	83.68	86.10	89.11	89.58	89.29	88.25	87.60	83.49	4.84	37.02	84.59	94.50	94.61	94.61	96.30
74.77	88.60	80.91	88.18	88.83	93.06	96.47	96.90	84.71	90.89	95.89	96.32	89.11	86.18	91.27	84.56	90.17
76.20	87.19	73.75	85.76	89.14	70.79	89.22	86.25	86.57	70.46	82.79	93.54	90.49	90.73	87.85	82.50	64.74

CAPACITY FACTOR % (represents unit's output as a percent of what it's output wou CORRECTION TO 100% CAPACITY FACTOR [(1/CAPACITY FACTOR)*100]

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
1.09	1.09	1.14	1.15	1.10	1.16	1.14	1.06	1.04	1.08	1.07	1.06	1.54	1.00	1.13	1.13	1.11
1.13	1.17	1.20	1.16	1.12	1.12	1.12	1.13	1.14	1.20	20.65	2.70	1.18	1.06	1.06	1.06	1.04
1.34	1.13	1.24	1.13	1.13	1.07	1.04	1.03	1.18	1.10	1.04	1.04	1.12	1.16	1.10	1.18	1.11
1.31	1.15	1.36	1.17	1.12	1.41	1.12	1.16	1.16	1.42	1.21	1.07	1.11	1.10	1.14	1.21	1.54

MONTHLY HEAT INPUT (100% CAPACITY FACTOR) - MMBtu

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
979,964	926,501	985,184	975,943	938,960	961,538	930,406	964,966	967,907	872,146	969,848	938,950	1,027,683	843,247	988,086	998,819	952,401
1,003,497	993,699	1,051,332	1,026,295	974,200	987,740	966,360	989,762	1,002,379	918,794	1,060,425	1,009,006	1,006,045	961,909	1,004,626	1,013,923	970,975
1,964,205	1,917,637	1,992,854	1,994,477	1,919,146	1,995,321	1,954,008	2,007,462	1,971,677	1,791,919	1,964,128	1,885,528	1,994,886	1,934,099	2,020,639	2,012,866	1,928,270
3,482,976	3,184,462	3,263,611	3,302,098	3,249,310	3,523,861	3,495,128	3,745,886	3,820,136	3,448,368	3,387,036	3,357,471	3,444,528	3,260,869	3,376,772	3,487,435	3,067,614
7,430,641	7,022,299	7,292,982	7,298,812	7,081,616	7,468,459	7,345,903	7,708,077	7,762,100	7,031,227	7,381,437	7,190,956	7,473,142	7,000,124	7,390,123	7,513,043	6,919,261

Maximum monthly ave based on 24-month period **7,762,100**

ANNUAL HEAT INPUT (100% CAPACITY FACTOR) - MMBtu

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
10,792,850	10,831,789	10,892,188	10,928,462	10,956,016	10,980,070	11,005,516	11,030,505	11,051,301	11,075,989	11,105,262	11,151,825	11,230,013	11,216,937	11,253,944	11,340,026	11,386,188
11,000,596	11,055,517	11,117,258	11,173,885	11,244,670	11,330,431	11,379,623	11,415,502	11,459,209	11,524,152	11,603,661	11,688,928	11,744,213	11,778,724	11,780,392	11,780,692	11,783,916
22,034,973	22,044,642	22,031,897	22,027,851	22,018,384	22,017,575	22,066,671	22,113,350	22,137,026	22,175,112	22,198,290	22,196,717	23,194,160	23,120,322	23,094,111	23,079,439	23,078,388
36,838,797	36,953,255	37,087,591	37,284,732	37,549,812	37,916,305	38,304,164	38,774,269	39,284,028	39,734,814	39,993,236	40,184,967	40,480,713	40,663,672	40,895,826	41,022,936	40,973,303
80,667,217	80,885,202	81,128,934	81,414,930	81,768,882	82,244,381	82,755,975	83,333,627	83,931,565	84,510,068	84,900,448	85,222,437	86,649,099	86,779,654	87,024,272	87,223,094	87,221,795

Maximum 12 month ave based on 24-month period **87,223,094**

Table DJ - 13
Dave Johnston Coal Burn Adjusted for 100% Capacity Factor

PAST ACTUAL MONTHLY COAL BURN from CEM- MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	51,837	50,275	51,063	49,092	47,399	48,817	46,448	46,420	43,570	41,192	48,151	38,260	4,636	48,907	51,396	46,875	47,460	49,313	42,774	48,697	30,351	47,522
Dave Johnston 2	52,512	50,920	52,195	55,255	49,171	50,611	47,845	48,372	45,762	47,028	44,884	46,786	40,194	45,595	47,527	46,675	45,042	45,703	27,493	49,720	47,789	47,165
Dave Johnston 3	102,041	103,313	94,331	101,430	93,019	60,860	75,434	58,487	98,129	105,220	101,300	101,476	112,414	107,172	100,185	94,867	100,518	57,289	87,027	94,042	97,711	94,639
Dave Johnston 4	129,795	110,857	136,111	150,726	101,328	92,278	0	92,864	91,297	123,755	106,820	143,721	148,054	130,220	142,954	118,440	127,425	149,676	140,930	136,329	119,004	124,604
Dave Johnston Totals	336,185	315,365	333,700	356,503	290,917	252,565	169,727	246,144	278,758	317,195	301,155	330,243	305,298	331,894	342,062	306,858	320,445	301,981	298,224	328,788	294,855	313,930

PAST ACTUAL ANNUAL COAL BURN (based on 24-Month Rolling Average) - MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston Totals																						

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	91.60	93.95	92.29	84.38	91.11	89.77	89.23	84.36	85.65	76.40	87.32	78.84	5.83	99.99	99.41	92.62	97.68	97.80	86.75	92.41	60.20	88.96
Dave Johnston 2	94.78	94.78	94.14	93.07	94.59	91.36	92.33	87.90	91.23	89.38	84.09	92.28	79.72	94.76	94.05	92.38	90.96	93.03	55.12	96.31	94.01	88.75
Dave Johnston 3	95.34	98.78	87.94	91.77	94.80	57.59	77.31	56.25	96.07	89.22	86.37	93.57	96.63	95.78	91.95	88.74	94.47	49.16	83.47	81.95	93.12	84.27
Dave Johnston 4	80.32	71.23	83.82	92.10	71.58	58.10	-0.27	55.90	60.72	80.43	67.90	94.44	93.23	89.00	92.83	78.96	89.19	96.56	93.55	85.16	77.37	74.63

CORRECTION TO 100% CAPACITY FACTOR [(1/CAPACITY FACTOR)*100]

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	1.09	1.06	1.08	1.19	1.10	1.11	1.12	1.19	1.17	1.31	1.15	1.27	17.15	1.00	1.01	1.08	1.02	1.02	1.15	1.08	1.66	1.12
Dave Johnston 2	1.06	1.06	1.06	1.07	1.06	1.09	1.08	1.14	1.10	1.12	1.19	1.08	1.25	1.06	1.06	1.08	1.10	1.07	1.81	1.04	1.06	1.13
Dave Johnston 3	1.05	1.01	1.14	1.09	1.05	1.74	1.29	1.78	1.04	1.12	1.16	1.07	1.03	1.04	1.09	1.13	1.06	2.03	1.20	1.22	1.07	1.19
Dave Johnston 4	1.25	1.40	1.19	1.09	1.40	1.72	-370.73	1.79	1.65	1.24	1.47	1.06	1.07	1.12	1.08	1.27	1.12	1.04	1.07	1.17	1.29	1.34

MONTHLY COAL BURN (100% CAPACITY FACTOR) - MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	56,591	53,511	55,329	58,180	52,024	54,378	52,054	55,026	50,870	53,915	55,141	48,528	79,502	48,910	51,702	50,610	48,585	50,420	49,305	52,698	50,415	53,422
Dave Johnston 2	55,405	53,724	55,443	59,372	51,982	55,396	51,822	55,031	50,162	52,618	53,374	50,699	50,420	48,116	50,533	50,528	49,522	49,128	49,879	51,626	50,836	53,144
Dave Johnston 3	107,025	104,587	107,262	110,521	98,125	105,680	97,575	103,984	102,147	117,930	117,291	108,446	116,334	111,888	108,951	106,903	106,401	116,540	104,261	114,759	104,929	112,309
Dave Johnston 4	161,600	155,630	162,389	163,655	141,561	158,817	0	166,132	150,365	153,865	157,313	152,185	158,809	146,317	153,988	149,991	142,869	155,013	150,652	160,092	153,812	166,969
Dave Johnston Totals	380,621	367,453	380,423	391,729	343,691	374,271	201,451	380,172	353,544	378,328	383,119	359,859	405,065	355,231	365,175	358,032	347,377	371,101	354,096	379,175	359,993	385,844

ANNUAL COAL BURN (100% CAPACITY FACTOR) - MMBtu

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 3	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston 4	This is based on a 24-month rolling average so there are no valid averages until September 2004																					
Dave Johnston Totals																						

Table DJ - 13
Dave Johnston Coal Burn Adjusted for 100% Capacity Factor

PAST ACTUAL MONTHLY COAL BURN from CEM- MMBtu

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
48,550	43,359	44,299	48,306	50,384	49,229	44,835	49,160	47,000	47,935	30,560	53,900	51,915	46,459	51,325	50,052	51,936	48,983	46,326	47,297	46,527
47,565	45,041	45,728	46,426	42,331	47,479	43,518	43,822	47,571	50,608	47,408	48,884	47,916	45,765	46,976	46,127	48,127	48,672	44,356	50,119	45,560
98,907	99,317	92,462	99,161	96,899	85,084	98,871	100,746	98,994	0	70,536	97,554	103,573	85,417	112,255	102,937	116,376	115,583	102,587	99,346	99,145
137,381	149,497	146,050	149,086	133,742	140,198	142,223	141,209	38,438	143,093	150,770	154,799	152,452	135,691	152,796	123,067	147,592	136,616	138,537	118,397	138,497
332,403	337,214	328,539	342,979	323,356	321,991	329,447	334,937	232,003	241,637	299,273	355,137	355,855	313,333	363,352	322,183	364,031	349,854	331,806	315,159	329,728

PAST ACTUAL ANNUAL COAL BURN (based on 24-Month Rolling Average) - MMBtu

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
514,503	536,182	532,413	531,429	531,089	531,158	529,876	530,047	530,323	531,081	524,576	530,929	532,811	536,911	560,255	560,828	561,098	562,152	561,585	560,577	562,453
540,905	563,426	560,034	557,787	552,855	548,967	546,140	542,746	542,609	543,727	544,550	545,478	546,994	546,483	549,874	550,140	550,440	551,438	551,095	553,303	562,336
1,069,906	1,119,564	1,114,775	1,112,699	1,113,983	1,105,810	1,108,736	1,128,679	1,140,459	1,111,215	1,097,418	1,093,585	1,094,722	1,086,692	1,086,613	1,084,495	1,092,591	1,102,949	1,103,983	1,125,012	1,131,071
1,377,284	1,452,032	1,460,160	1,479,274	1,478,090	1,472,826	1,493,274	1,517,739	1,536,959	1,562,073	1,591,810	1,607,332	1,630,148	1,626,133	1,628,504	1,624,927	1,627,246	1,636,335	1,641,891	1,626,251	1,625,035
3,502,598	3,671,205	3,667,382	3,681,189	3,676,017	3,658,761	3,678,026	3,719,212	3,750,349	3,748,096	3,758,353	3,777,324	3,804,674	3,796,219	3,825,247	3,820,391	3,831,376	3,852,874	3,858,554	3,865,143	3,880,895

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
89.20	86.43	83.38	98.96	98.26	95.82	96.45	94.67	94.53	91.38	58.71	95.80	95.64	88.31	98.91	99.72	98.78	91.25	97.21	87.67	93.94
90.58	90.26	86.60	96.76	84.32	93.83	95.93	83.34	95.99	94.47	91.43	88.77	88.81	88.25	90.58	92.04	91.84	90.89	94.65	91.33	89.58
87.26	91.05	78.88	93.07	84.84	81.24	93.30	95.58	91.95	-0.33	59.24	80.90	90.24	75.95	99.09	95.49	97.20	97.79	95.14	86.30	91.27
86.70	98.57	91.94	98.32	83.45	86.69	96.91	88.08	24.30	85.62	93.60	92.19	93.38	84.88	95.55	79.07	91.61	84.45	90.81	69.95	86.11

CORRECTION TO 100% CAPACITY FACTOR [(1/CAPACITY FACTOR)*100]

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
1.12	1.16	1.20	1.01	1.02	1.04	1.04	1.06	1.06	1.09	1.70	1.04	1.05	1.13	1.01	1.00	1.01	1.10	1.03	1.14	1.06
1.10	1.11	1.15	1.03	1.19	1.07	1.04	1.20	1.04	1.06	1.09	1.13	1.13	1.13	1.10	1.09	1.09	1.10	1.06	1.09	1.12
1.15	1.10	1.27	1.07	1.18	1.23	1.07	1.05	1.09	-306.52	1.69	1.24	1.11	1.32	1.01	1.05	1.03	1.02	1.05	1.16	1.10
1.15	1.01	1.09	1.02	1.20	1.15	1.03	1.14	4.11	1.17	1.07	1.00	1.07	1.18	1.05	1.26	1.09	1.18	1.10	1.43	1.16

MONTHLY COAL BURN (100% CAPACITY FACTOR) - MMBtu

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
54,427	50,166	53,128	48,814	51,277	51,376	46,485	51,927	49,721	52,456	52,049	56,262	54,280	52,612	51,889	50,190	52,577	53,683	47,653	53,948	49,527
52,512	49,899	52,804	47,983	50,201	50,603	45,366	52,585	49,557	53,573	51,854	55,068	53,953	51,861	51,862	50,115	52,404	53,551	46,863	54,879	50,859
113,347	109,082	117,221	106,550	114,219	104,726	105,974	105,405	107,661	0	119,058	120,586	114,771	112,462	113,288	107,797	119,734	118,197	107,828	115,122	108,624
158,452	151,663	158,860	151,635	160,261	161,722	146,756	160,318	158,173	167,121	161,085	154,799	163,267	159,857	159,916	155,640	161,106	161,773	152,562	169,253	160,839
378,738	360,810	382,012	354,982	375,958	368,427	344,581	370,235	365,113	273,150	384,045	386,715	386,271	376,791	376,956	363,742	385,821	387,203	354,906	393,202	369,850

ANNUAL COAL BURN (100% CAPACITY FACTOR) - MMBtu

Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
	642,855	641,123	638,775	636,749	633,347	630,578	629,353	628,186	626,901	627,491	628,664	628,234	630,275	616,469	617,109	617,546	619,083	618,617	620,381	620,492
	625,587	624,286	621,415	618,794	614,409	611,102	609,696	608,563	607,834	608,680	609,905	610,194	610,775	611,496	612,495	613,430	614,942	613,613	616,489	616,979
	1,303,138	1,308,236	1,309,218	1,312,696	1,309,798	1,313,723	1,313,585	1,318,628	1,266,636	1,275,091	1,276,419	1,275,159	1,277,167	1,275,644	1,273,599	1,278,990	1,284,638	1,285,351	1,284,642	1,286,823
	1,786,070	1,784,700	1,782,702	1,781,638	1,780,671	1,783,269	1,784,020	1,863,106	1,863,601	1,868,961	1,869,428	1,872,405	1,876,241	1,876,795	1,881,456	1,885,015	1,890,906	1,895,753	1,902,873	1,907,967
	4,357,649	4,358,345	4,352,109	4,349,877	4,338,226	4,338,671	4,336,653	4,418,484	4,364,973	4,380,223	4,384,417	4,385,993	4,394,459	4,380,404	4,384,659	4,394,982	4,409,568	4,413,333	4,424,384	4,432,260

Table DJ - 13
Dave Johnston Coal Burn Adjusted for 100% Capacity Factor

PAST ACTUAL MONTHLY COAL BURN from CEM- MMBtu **PAST ACTUAL MONTHLY COAL BURN from CEM- MMBtu**

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
51,649	51,269	46,494	47,170	47,952	46,424	45,099	48,903	48,909	45,716	49,295	48,776	35,398	46,861	48,895	49,889	48,173
48,617	48,341	45,581	47,749	47,679	48,664	46,861	48,903	48,909	46,480	2,455	20,077	44,007	46,926	50,043	51,591	50,367
86,471	100,946	94,585	104,234	101,189	108,325	110,701	115,357	100,416	96,652	113,229	106,343	101,930	96,848	104,836	99,237	98,468
129,802	145,961	127,673	146,493	146,280	120,010	148,086	150,881	148,957	111,067	142,659	155,903	152,176	147,093	151,928	145,638	110,130
316,539	346,518	314,334	345,646	343,100	323,423	350,747	364,044	347,191	299,915	307,638	331,098	333,511	488,037	488,037	488,037	488,037

PAST ACTUAL ANNUAL COAL BURN (based on 24-Month Rolling Average) - MMBtu **PAST ACTUAL ANNUAL COAL BURN (based on 24-Month Rolling Average) - MMBtu**

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
563,929	574,388	573,874	573,184	575,481	576,543	574,940	574,199	574,039	574,480	574,547	575,435	569,167	577,317	574,815	573,802	574,659
561,785	562,061	561,269	561,361	562,680	564,148	564,366	567,652	568,367	569,847	549,164	535,417	532,116	531,876	532,455	534,293	536,594
1,127,285	1,128,903	1,128,876	1,131,539	1,132,475	1,140,407	1,146,177	1,155,406	1,163,072	1,161,962	1,168,204	1,171,878	1,222,843	1,235,999	1,239,640	1,237,472	1,243,998
1,621,771	1,635,250	1,636,784	1,641,340	1,639,732	1,626,712	1,626,212	1,634,781	1,639,161	1,623,583	1,624,308	1,683,040	1,687,581	1,685,743	1,684,307	1,680,900	1,668,119
3,874,770	3,900,602	3,900,804	3,907,425	3,910,368	3,907,810	3,911,694	3,932,038	3,944,638	3,929,872	3,916,223	3,965,770	4,011,708	4,030,935	4,031,217	4,026,467	4,023,370

Maximum 12 month ave based on 24-month period 4,031,217

CAPACITY FACTOR % (represents unit's output as a percent of what it's output would have been if the unit had operated at 100% of its capacity over the period being evaluated)

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
91.70	91.89	87.78	86.59	91.22	86.57	87.59	94.23	96.10	92.71	93.71	93.96	65.11	88.87	88.25	88.84	90.02
88.84	85.43	83.68	86.10	89.11	89.58	89.29	88.25	87.60	83.49	4.84	37.02	84.59	94.50	94.61	94.61	96.30
74.77	88.60	80.91	88.18	88.83	93.06	96.47	96.90	84.71	90.89	95.89	96.32	89.11	86.18	91.27	84.56	90.17
76.20	87.19	73.75	85.76	89.14	70.79	89.22	86.25	86.57	70.46	82.79	93.54	90.49	90.73	87.85	82.50	64.74

CAPACITY FACTOR % (represents unit's output as a percent of what it's output wou CORRECTION TO 100% CAPACITY FACTOR [(1/CAPACITY FACTOR)*100]

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
1.09	1.09	1.14	1.15	1.10	1.16	1.14	1.06	1.04	1.08	1.07	1.06	1.54	1.00	1.13	1.13	1.11
1.13	1.17	1.20	1.16	1.12	1.12	1.12	1.13	1.14	1.20	20.65	2.70	1.18	1.06	1.06	1.06	1.04
1.34	1.13	1.24	1.13	1.13	1.07	1.04	1.03	1.18	1.10	1.04	1.04	1.12	1.16	1.10	1.18	1.11
1.31	1.15	1.36	1.17	1.12	1.41	1.12	1.16	1.16	1.42	1.21	1.07	1.11	1.10	1.14	1.21	1.54

MONTHLY COAL BURN (100% CAPACITY FACTOR) - MMBtu **MONTHLY COAL BURN (100% CAPACITY FACTOR) - MMBtu**

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
56,322	55,796	52,968	54,473	52,567	53,628	51,492	51,895	50,894	49,313	52,606	51,912	54,369	46,861	55,405	56,156	53,514
54,723	56,587	54,470	55,458	53,509	54,322	52,481	55,411	55,835	55,670	50,695	54,229	52,025	49,658	52,891	54,530	52,302
115,644	113,931	116,900	118,211	113,912	116,406	114,749	119,053	118,542	106,339	118,078	110,410	114,384	112,379	114,868	117,357	109,203
170,344	167,403	173,117	170,808	164,103	169,541	165,971	174,927	172,065	157,621	172,313	166,663	168,177	162,130	172,947	176,531	170,111
397,034	393,717	397,455	398,950	384,091	393,897	384,693	401,287	397,336	368,944	393,693	383,213	388,956	371,028	396,112	404,574	385,130

Maximum monthly ave based on 24-month period 404,574

ANNUAL COAL BURN (100% CAPACITY FACTOR) - MMBtu **ANNUAL COA ANNUAL COAL BURN (100% CAPACITY FACTOR) - MMBtu**

May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
622,304	624,994	624,767	624,790	625,990	626,240	627,579	627,888	627,647	629,061	629,400	630,496	631,453	628,859	628,430	629,368	629,819
618,527	621,403	622,066	623,538	625,343	626,102	628,351	630,956	633,572	638,724	637,779	640,115	639,341	638,243	637,155	637,444	637,664
1,287,266	1,291,767	1,294,063	1,296,495	1,298,910	1,298,502	1,302,602	1,305,019	1,311,927	1,312,110	1,318,447	1,319,821	1,377,013	1,373,674	1,370,815	1,372,108	1,370,479
1,913,092	1,919,888	1,922,962	1,929,140	1,935,360	1,940,701	1,947,869	1,955,202	1,960,374	1,965,806	1,971,804	1,976,049	1,976,577	1,977,099	1,986,173	1,992,805	1,997,932
4,441,190	4,458,052	4,463,857	4,473,963	4,485,603	4,491,546	4,506,401	4,519,066	4,533,520	4,545,702	4,557,430	4,566,481	4,624,383	4,617,875	4,622,573	4,631,725	4,635,894

Maximum 12 month ave based on 24-month period 4,635,894

Table DJ - 14
Dave Johnston Projected Actual PM Emissions

Plant Name	Maximum Hourly Heat Input MMBtu/hour	Maximum Annual Unit Operating Time Hours/Year	Predicted PM Emission Rate lb/MMBtu[a] (U1/2-Max PM from Testing) (U3/4-Predicted PM)	Predicted PM tons/year (Using Max PM for U1/2)
Dave Johnston 1	1,300	8,760	0.136	774.3
Dave Johnston 2	1,345	8,760	0.050	294.6
Dave Johnston 3	2,800	8,760	0.015	184.0
Dave Johnston 4	4,700	8,760	0.015	308.8
Stack Totals				**1,562**

Table DJ - 15
Potential to Emit Fluoride Emissions

$M_{HF} = F_{comb} \times 2000$ lb/ton $\times C_{HF} \times 1/10^6 \times F_{acid}$

Where:	M_{HF} =	Manufacture of Hydrogen Fluoride, lb/year	
	F_{comb} =	Coal combustion, tons/year	
	F_{comb} =	629,819	tons/year (Unit 1)
	F_{comb} =	637,664	tons/year (Unit 2)
	F_{comb} =	1,370,479	tons/year (Unit 3)
	F_{comb} =	1,997,932	tons/year (Unit 4)
	C_{HF} =	60.33	Fluoride concentration in coal, ppm (concentration occuring during maximum coal consumption period)
	F_{acid} =	M_{HF}/M_F	Acid conversion factor: ratio of molecular weights, compound/parent chemical
	M_F =	18.9984	Molecular weight of fluorine
	M_{HF} =	20.0063	Molecular weight of hydrogen fluoride
	F_{acid} =	1.053053932	
	AR =	Annual release of hydrogen fluoride, lb/year	
	E_{HF} =	90%	HF emission factor for bituminous coal
	EF_{FGD} =	6%	HF emission factor for FGD systems
	$EF_{No\ FGD}$ =	50%	HF emission factor without FGD, sub bituminus

Note: Maximum annual coal burn rates Table DJ-7

$AR_{FGD\ Removal} = (1.0 - F_{Bypass}) \times E_{FGD} \times M_{HF}$
$AR_{Bypass} = F_{Bypass} \times EF_{NoFGD} \times M_{HF}$
$AR_{Total} = AR_{FGD\ Removal} + AR_{Bypass}$

Historical Coal Fluoride Concentrations (Parts Per Million)
(From Emission Tables)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Highest 1996-2006 Fluoride Concentration (ppm)
DJ-1				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33
DJ-2				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33
DJ-3				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33
DJ-4				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33

Calculation Method:

EPRI LARK-TRIPP *Calculation and Methods for Threshold Determination and Release Estimates*
HF Emission Factor with FGD System: 6%
Bituminous Coal Emission Factor: 90%
(Table 5-1 Emission Factors for HCL and HF)

Maximum Annual Coal Burn Rate

	Annual Coal Burn Rate
DJ-1	595,481
DJ-2	556,917
DJ-3	1,280,319
DJ-4	1,734,370

Note: Maximum annual coal burn rates Table DJ-7

U1: F_{Bypass} = 0.00 (0% Scrubber Bypass)
U2: F_{Bypass} = 0.00 (0% Scrubber Bypass)
U3: F_{Bypass} = 0.00 (0% Scrubber Bypass)
U4: F_{Bypass} = 0.00 (0% Scrubber Bypass)

M_{HF} = 37.8 tons/year (Unit 1 HF manufacture)
M_{HF} = 35.4 tons/year (Unit 2 HF manufacture)
M_{HF} = 81.3 tons/year (Unit 3 HF manufacture)
M_{HF} = 110.2 tons/year (Unit 3 HF manufacture)

$AR_{No\ FGD\ Removal} = (1.0 - F_{Bypass}) \times EF_{No\ FGD} \times M_{HF}$
$AR_{FGD\ Removal} = (1.0 - F_{Bypass}) \times EF_{FGD} \times M_{HF}$

$AR_{No\ FGD\ Removal}$ = 18.9 tons/year Unit 1 stack air release
$AR_{No\ FGD\ Removal}$ = 17.7 tons/year Unit 2 stack air release
$AR_{No\ FGD\ Removal}$ = 40.7 tons/year Unit 3 stack air release
$AR_{FGD\ Removal}$ = 6.6 tons/year Unit 4 stack air release

AR_{Total} = 83.9 tons/year (Potential to Emit Hydrogen Fluoride Emissions)

Table DJ - 16
Projected Acutal Fluoride Emissions

$M_{HF} = F_{comb} \times 2000$ lb/ton $\times C_{HF} \times 1/10^6 \times F_{acid}$

Where:
M_{HF} = Manufacture of Hydrogen Fluoride, lb/year
F_{comb} = Coal combustion, tons/year
F_{comb} = 629,819 tons/year (Unit 1)
F_{comb} = 637,664 tons/year (Unit 2)
F_{comb} = 1,370,479 tons/year (Unit 3)
F_{comb} = 1,997,932 tons/year (Unit 4)

Note: Maximum annual coal burn rates Table DJ-7

C_{HF} = 60.33 Fluoride concentration in coal, ppm (concentration occuring during maximum coal consumption period)
F_{acid} = M_{HF}/M_F Acid conversion factor: ratio of molecular weights, compound/parent chemical
M_F = 18.9984 Molecular weight of fluorine
M_{HF} = 20.0063 Molecular weight of hydrogen fluoride
F_{acid} = 1.053053932
AR = Annual release of hydrogen fluoride, lb/year
E_{HF} = 90% HF emission factor for bituminous coal
EF_{FGD} = 6% HF emission factor for FGD systems
$EF_{No\ FGD}$ = 50% HF emission factor without FGD, sub bituminus
$AR_{FGD\ Removal} = (1.0 - F_{Bypass}) \times E_{FGD} \times M_{HF}$
$AR_{Bypass} = F_{Bypass} \times EF_{NoFGD} \times M_{HF}$
$AR_{Total} = AR_{FGD\ Removal} + AR_{Bypass}$

Historical Coal Fluoride Concentrations (Parts Per Million)
(From Emission Tables)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Highest 1996-2006 Fluoride Concentration (ppm)
DJ-1				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33
DJ-2				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33
DJ-3				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33
DJ-4				18.85	18.85	18.85	18.85	18.85	60.33	60.33	60.33	60.33

Calculation Method:

EPRI LARK-TRIPP *Calculation and Methods for Threshold Determination and Release Estimates*
HF Emission Factor with FGD System: 6%
Bituminous Coal Emission Factor: 90%
(Table 5-1 Emission Factors for HCL and HF)

Maximum Annual Coal Burn Rate

	Annual Coal Burn Rate
DJ-1	629,819
DJ-2	637,664
DJ-3	1,370,479
DJ-4	1,997,932

Note: Maximum annual coal burn rates Table DJ-7

U1: F_{Bypass} = 0.00 (0% Scrubber Bypass)
U2: F_{Bypass} = 0.00 (0% Scrubber Bypass)
U3: F_{Bypass} = 0.00 (0% Scrubber Bypass)
U4: F_{Bypass} = 0.00 (0% Scrubber Bypass)

M_{HF} = 40.0 tons/year (Unit 1 HF manufacture)
M_{HF} = 40.5 tons/year (Unit 2 HF manufacture)
M_{HF} = 87.1 tons/year (Unit 3 HF manufacture)
M_{HF} = 126.9 tons/year (Unit 3 HF manufacture)

$AR_{No\ FGD\ Removal} = (1.0 - F_{Bypass}) \times EF_{No\ FGD} \times M_{HF}$
$AR_{FGD\ Removal} = (1.0 - F_{Bypass}) \times EF_{FGD} \times M_{HF}$

$AR_{No\ FGD\ Remov}$ 20.0 tons/year Unit 1 stack air release
$AR_{No\ FGD\ Remov}$ 20.3 tons/year Unit 2 stack air release
$AR_{FGD\ Removal}$ = 5.2 tons/year Unit 3 stack air release
$AR_{FGD\ Removal}$ = 7.6 tons/year Unit 4 stack air release

AR_{Total} = 53.1 tons/year (Projected Actual Hydrogen Fluoride Emissions)

Table DJ - 17
Dave Johnston Projected Actual SO_2 Emissions Evaluation

Baseline Actual Monthly SO_2 Emissions from CEMs - Tons/Month

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	377	376	373	355	340	369	332	339	327	281	296	215	16	277	270	289	308	323	255	263	158
Dave Johnston 2	362	414	421	427	376	391	356	372	365	354	298	283	232	248	224	278	291	304	164	276	257

Capacity Factor % (represent's unit's output as a percentage of what its output would have been if the unit had operated at 100% of its capacity over the time period being evaluated)

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	91.60	93.95	92.29	84.38	91.11	89.77	89.23	84.36	85.65	76.40	87.32	78.84	5.83	99.99	99.41	92.62	97.68	97.80	86.75	92.41	60.20
Dave Johnston 2	94.78	94.78	94.14	93.07	94.59	91.36	92.33	87.90	91.23	89.38	84.09	92.28	79.72	94.76	94.05	92.38	90.96	93.03	55.12	96.31	94.01

Monthly SO_2 Emissions (Adjusted to 100% Capacity Factor) Tons/Month

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	412.0	400.1	404.6	420.6	373.0	410.9	371.7	402.2	382.3	368.3	338.7	272.6	268.1	276.6	271.3	311.5	315.1	330.1	294.2	285.1	262.1
Dave Johnston 2	382.0	436.9	447.5	458.4	397.4	428.2	385.7	423.2	399.5	396.3	353.9	306.5	290.9	261.6	237.7	300.6	319.6	327.3	296.8	286.2	273.4

Annual SO_2 Emissions (Adjusted to 100% Capacity Factor) Based on a rolling 24-month period) Tons/Year

UNIT NAME	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Dave Johnston 1	This is based on a 24-month rolling average so there are no valid averages until September 2004																				
Dave Johnston 2	This is based on a 24-month rolling average so there are no valid averages until September 2004																				

Table DJ - 17
Dave Johnston Projected Actual SO_2 Emissions Evaluation

Past Actual Monthly SO_2 Emissions from CEMs - Tons/Month

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06
233	238	238	218	257	290	262	242	293	230	285	194	341	280	256	281	308	318	326	333
245	247	235	202	250	252	258	231	270	245	308	294	334	312	285	267	293	299	335	314

Capacity Factor % (represent's unit's output as a percentage of what its output would have been if the unit had operated at 100% of its capacity over the time period being evaluated)

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06
88.96	89.20	86.43	83.38	98.96	98.26	95.82	96.45	94.67	94.53	91.38	58.71	95.80	95.64	88.31	98.91	99.72	98.78	91.25	97.21
88.75	90.58	90.26	86.60	96.76	84.32	93.83	95.93	83.34	95.99	94.47	91.43	88.77	88.81	88.25	90.58	92.04	91.84	90.89	94.65

Monthly SO_2 Emissions (Adjusted to 100% Capacity Factor) Tons/Month

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06
262.1	267.0	275.7	261.9	260.0	295.1	272.9	250.6	309.4	243.5	311.4	329.8	356.2	293.0	289.5	283.6	308.6	321.7	356.8	342.9
276.4	272.5	260.8	233.7	258.7	299.1	274.7	241.0	323.5	255.1	325.9	322.1	376.6	350.9	322.5	295.1	318.2	325.4	368.5	332.0

Annual SO_2 Emissions (Adjusted to 100% Capacity Factor) Based on a rolling 24-month period) Tons/Year

Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06
		3,988	3,913	3,843	3,788	3,714	3,653	3,602	3,538	3,493	3,467	3,461	3,438	3,446	3,454	3,470	3,495	3,518	3,532
		4,110	4,036	3,946	3,872	3,780	3,702	3,650	3,585	3,536	3,497	3,487	3,486	3,494	3,496	3,524	3,568	3,602	3,608

Table DJ - 17
Dave Johnston Projected Actual SO_2 Emissions Evaluation

Past Actual Monthly SO_2 Emissions from CEMs - Tons/Month

Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
323	326	345	326	322	332	313	318	311	321	330	279	317	327	256	336	356	341	339
352	316	339	322	323	348	313	336	330	310	317	265	19	141	335	368	376	396	395

Capacity Factor % (represent's unit's output as a percentage of what its output would have been if the unit had operated at 100% of its capacity over the time period being evaluated)

Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
87.67	93.94	91.70	91.89	87.78	86.59	91.22	86.57	87.59	94.23	96.10	92.71	93.71	93.96	65.11	88.87	88.25	88.84	90.02
91.33	89.58	88.84	85.43	83.68	86.10	89.11	89.58	89.29	88.25	87.60	83.49	4.84	37.02	84.59	94.50	94.61	94.61	96.30

Monthly SO_2 Emissions (Adjusted to 100% Capacity Factor) Tons/Month

Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
368.6	346.9	375.7	354.5	366.7	383.8	343.3	367.0	354.9	340.6	343.7	300.7	338.5	348.1	393.8	378.4	403.5	384.2	376.6
385.0	352.8	381.4	376.9	385.8	404.0	351.4	375.0	369.7	351.6	361.7	317.4	388.7	381.3	396.4	389.4	397.7	418.5	409.8

Annual SO_2 Emissions (Adjusted to 100% Capacity Factor) Based on a rolling 24-month period) Tons/Year

Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
3,551	3,577	3,623	3,669	3,721	3,779	3,813	3,866	3,913	3,936	3,971	3,996	4,011	4,063	4,104	4,129	4,152	4,198	4,242
3,637	3,665	3,713	3,765	3,819	3,885	3,930	4,001	4,056	4,083	4,126	4,164	4,197	4,260	4,295	4,329	4,339	4,373	4,417

13.0 Appendix F

Best Available Control Technology/LAER Clearinghouse

TABLE F-1: Best Available Control Technology/LAER Clearinghouse

New Source Review RACT/Best Available Control Technology/LAER Clearinghouse Database
Best Available Control Technology-Prevention of Significant Deterioration Sources for carbon monoxide
Coal Fueled Boilers

RBLC ID	Company Name and Location	Unit	Size and Configuration	Control Technology	Control Efficiency	Emission Limit Standardized	Limit 1	Limit 2	Permit Date and Permit No.
MI-0379	Detroit Edison Company Monroe Power Plant	1	Pulverized coal, 7624 mmbtu/h cell burner boiler	Good Combustion Practices	not given	not given	not given	not given	11/15/05 222-05
MI-0380	Detroit Edison Company St. Clair Power Plant	1	Pulverized coal, 1900 mmbtu/h cell burner boiler	Good Combustion Practices	not given	not given	not given	not given	01/04/06 288-05
		2	Pulverized coal, 1900 mmbtu/h cell burner boiler	Good Combustion Practices	not given	not given	not given	not given	
MI-0381	Detroit Edison Company Monroe Power Plant	4	Pulverized coal, 7624 mmbtu/h cell burner boiler	Good Combustion Practices	not given	not given	not given	not given	03/03/06 330-05
TX-298	Reliant Energy Inc. WA Parish	7	Coal, 6700 mmbtu/hr Tangentially fired	Good Combustion Practices	not given	0.28 lb/mmbtu	1891 lb/hr	8281 t/yr	10/15/2003 PSD-TX-901, PSD-TX-902 & -33M1
		6	Coal, 7400 mmbtu/hr Tangentially fired	Good Combustion Practices	not given	0.29 lb/mmbtu	2168 lb/hr	9496 t/yr	
		5	Coal, 7400 mmbtu/hr Tangentially fired	Good Combustion Practices	not given	0.29 lb/mmbtu	2168 lb/hr	9496 t/yr	
TX-0342	Reliant Energy Inc. Limestone Electric Generating Station	1	Coal, 7863 mmbtu/hr Tangentially fired	Good Combustion Practices	not given	0.28 lb/mmbtu	873 lb/hr	2202 lb/hr	05/23/01 PSD-TX-371 (M3)
		2	Coal, 7863 mmbtu/hr Tangentially fired	Good Combustion Practices	not given	0.28 lb/mmbtu	873 lb/hr	2202 lb/hr	

14.0 Appendix G

Forms

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

PERMIT APPLICATION FORM

Date of Application: October 15, 2007

1. Name of Firm or Institution: PacifiCorp - Dave Johnston Plant

2. Mailing Address

Number	Street	City	State
1591	Tank Farm Road	Glenrock	Wyoming

County	Zip	Telephone
Converse	82637	(307) 436-2712

3. Plant Location

Number	Street	City	State
1591	Tank Farm Road	Glenrock	Wyoming

County	Zip	Telephone
Converse	82637	(307) 436-2712

4. Name of owner or company official to contact regarding air pollution matters

Name	Title	Telephone
Gregory Hager	Managing Director	(307) 436-2001

Number	Street	City	State	Zip
1591	Tank Farm Road	Glenrock	Wyoming	82637

5. General nature of business

Coal-fueled steam-electric generating plant

6. Permit application is made for: ___ New Construction _X_ Modification
___ Relocation ___ Operation

7. Type of equipment to be constructed, modified, or relocated. (List each major piece of equipment separately.)

Dave Johnston 1

- Plant projects listed in Appendix A

Dave Johnston 2

- Plant projects listed in Appendix B

Dave Johnston 3

- Replacement of the existing cell burner configuration with low-NO_X burners
- Installation of a flue gas desulfurization system with a fabric filter baghouse to achieve an 80 percent removal rate of sulfur dioxide
- Plant projects listed in Appendix C

Dave Johnston 4

- The replacement of the existing coal burners on unit 4 with a new Alstom TFS 2000™ low-NO_X firing system and the installation of one elevation of separated overfire air.
- Installation of a flue gas desulfurization system with a fabric filter baghouse to achieve an 80 percent removal rate of sulfur dioxide
- Plant projects listed in Appendix D

8. If application is being made for operation of an existing source in a new location, list previous location and new location:

Previous Location:	Not Applicable
New Location:	

9. If application is being made for a crushing unit, is there: (mark all appropriate boxes)
Not Applicable – The permitted projects are for the installation of pollution control equipment used to reduce SO_2 and NO_X emissions from unit 3 and unit 4. No crushing equipment is involved with the identified plant projects.

10. Materials used in unit or process (include solid fuels):

Not Applicable – The permitted projects are for the installation of pollution control equipment used to reduce SO_2 and NO_X emissions from unit 3 and unit 4. No crushing equipment is involved with the identified plant projects.

Type of Material	Process Weight Average (lb/hr)	Process Weight Maximum (lb/hr)	Quantity/Year

11. Air contaminants emitted:

The identified projects have the potential to change the characteristics of the air pollutants emitted from the Dave Johnston units 3 and 4 exhaust stacks. NO_X emissions will be reduced by approximately 40 percent from current levels. There will be a reduction in sulfur dioxide emissions associated with the installation of a flue gas desulfurization system. There will be a potential net annual increase in carbon monoxide (CO) emissions associated with the installation of the low NO_X burners on units 3 and 4 of approximately 147 tons per year.

Calculations of the Emission Estimates

Summary of Baseline Actual Emissions

Dave Johnston	SO_2 tons/yr	NO_X tons/yr	PM tons/yr	VOC tons/yr	CO tons/yr	H_2SO_4 tons/yr	Lead tons/yr	Fluorides tons/yr
Stack Emissions	21,956	15,838	2,049	121	1,008	21.8	0.32	81.0
Non-stack Emissions[1]	-	-	310	-	-	-	-	-
Total Past Emissions	21,969	15,838	2,359	121	1,008	21.8	0.32	81

[1]Maximum past non-stack PM emissions from 2002-2006 emissions inventories

Summary of Projected Actual Emissions

	SO_2 tons/yr[2]	NO_X tons/yr[2]	PM tons/yr	VOC tons/yr	CO tons/yr	H_2SO_4 tons/yr	Lead tons/yr	Fluorides tons/yr
Past Actual Annual Baseline Emissions (Not Including Non-Stack Sources)	21,953	15,553	2,049	121	1,008	21.8	0.32	81.0
Potential Past Annual (Not Including Non-Stack Sources)	22,724	16,385	2,105	125	1,042	22.6	0.33	83.9
Potential Annual Emissions (Not Including Non-Stack Sources)	-	-	1,562	139	7,500	10	0.21	53.1
Capable of Accommodating Adjustment (Potential Past – Past Actual)	-	-	56	4	34	0.8	0.01	2.9
Potential Annual Emissions minus "what the unit was capable of accommodating"	-	-	1,506	135	7,466	9.2	0.2	50.2

Evaluation of significance levels by pollutant

To determine if a Prevention of Significant Deterioration significance level has been reached the baseline actual annual emissions are subtracted from the projected actual emissions.

Permitted Projects: Unit 3 and 4 Low NO_x burners and flue gas desulfurization systems	Baseline Actual tons/year	Projected Actual emissions tons/year	Projected Actual minus Baseline Actual	PSD Review Significance Level - tons/year	Emission Increase Greater than significance level
SO_2	21,953	-	-	40	NO
NO_X	15,553	-	-	40	NO
PM	2,049	1,562	-487	25	NO
CO	1,008	7,500	6,492	100	**YES**
Ozone (as VOC)	121	139	18	40	NO
Fluoride (as HF)	81.0	53.1	-27.9	3	NO
Lead	0.32	0.21	-0.11	0.6	NO
Sulfuric acid mist	21.8	10.0	-11.8	7	NO

12. Air contaminant control equipment:

Emission Point	Type	Pollutant Removed	Efficiency
Unit 3 stack	Advanced Low NO_X burners with over-fire air	NO_X	This equipment is expected to reduce annual NO_X emissions by 30-40 percent when compared to pre-project emissions
Unit 3 stack	Spray dryer flue gas desulfurization	SO_2	This equipment is expected to reduce annual SO_2 emissions by 80 percent when compared to pre-project emissions
Unit 4 stack	Advanced Low NO_X burners with one level of separated over-fire air	NO_X	This equipment is expected to reduce annual NO_X emissions by 30-40 percent when compared to pre-project emissions
Unit 4 stack	Spray dryer flue gas desulfurization	SO_2	This equipment is expected to reduce annual SO_2 emissions by 80 percent when compared to pre-project emissions

13. Type of combustion unit: (check if applicable):

A. Coal

1. *Pulverized* _X_:
General __; Dry Bottom _X_; Wet Bottom __; With Flyash Reinjection __;
Without Flyash Reinjection __; Other

2. *Spreader Stoker* __:
With Flyash Reinjection __; Without Flyash Reinjection __; Cyclone __;
Hand-Fired __; Other

B. Fuel Oil
Horizontally Fired __ Tangentially Fired

Type of combustion unit: (check if applicable):

C. Natural Gas

D. If other, please specify

The maximum unit 3 hourly heat input value will increase to 2,800 MMBtu/hour following installation of the spray dryer absorber flue gas desulfurization system.

14. Operating Schedule: 24 hours/day; 7 days/week; 52 weeks/year.

Peak production season (if any):

15. Fuel analysis: Not Applicable – The planned Dave Johnston plant projects will not change the amount or quality of fuel burned or the capacity of the generating units.

	COAL	FUEL OIL	NATURAL GAS
% Sulfur			
% Ash			
BTU Value			

16. Products of process or unit: Not Applicable – The planned Dave Johnston plant projects will not change the amount or quality of fuel burned or the capacity of the generating units.

Products	Quantity/Year

17. Emissions to the atmosphere (each point of emission should be listed separately and numbered so that it can be located on the flow sheet):

Emission Point	Stack Height (ft)	Stack Diameter (ft)	Gas Discharge SCFM	Exit Temp (^{O}F)	Gas Velocity (ft/s)
Unit 1 stack	500	11 (exit I.D.)	538,000	300	94
Unit 2 stack	500	11 (exit I.D.)	538,000	300	94
Unit 3 stack*	500	18 (exit I.D.)	1,314,000	190	73
Unit 4 stack*	500	18 (exit I.D.)	1,352,000	190	89

* proposed new stack installation for Unit 3 and Unit 4

18. Does the input material or product from this process or unit contain finely divided materials which could become airborne?

_X__ Yes __ No

Is this material stored in piles or in some other way as to make possible the creation of dust problems?

__X_ Yes __ No

18. Continued:
List storage pile (if any):

Type of Material	Particle Size (Diameter or Screen Size)	Pile Size (Average Tons on Pile)	Pile Wetted (Yes or No)	Pile Covered (Yes or No)
Coal	1 inch minus	273,000	No	No

19. Using a flow diagram:

(1) Illustrate input of raw materials.

(2) Label production processes, process fuel combustion, process equipment, and air pollution control equipment.

(3) Illustrate locations of air contaminant release so that emission points under items 11, 12 and 17 can be identified. For refineries show normal pressure relief and venting systems. Attach extra pages as needed.

20. A site map should be included indicating the layout of facility at the site. All buildings, pieces of equipment, roads, pits, rivers and other such items should be shown on the layout.

21. A location drawing should be included indicating location of the facility with respect to prominent highways, cities, towns, or other facilities (include UTM coordinates).

"I certify to the accuracy of the plans, specifications, and supplementary data submitted with this application. It is my Opinion that any new equipment installed in accordance with these submitted plans and operated in accordance with the manufacturer's recommendations will meet emission limitations specified in the Wyoming Air Quality Standards and Regulations."

Signature			Typed Name	Gregory L. Hager	
Title	Managing Director		Company	PacifiCorp	
Mailing Address	1591 Tank Farm Road		Telephone No.	(307) 436-2001	
City	Glenrock	State	Wyoming	Zip	83267
P.E. Registration (if applicable)					
State where registered					

Figure 1 – Dave Johnston Site

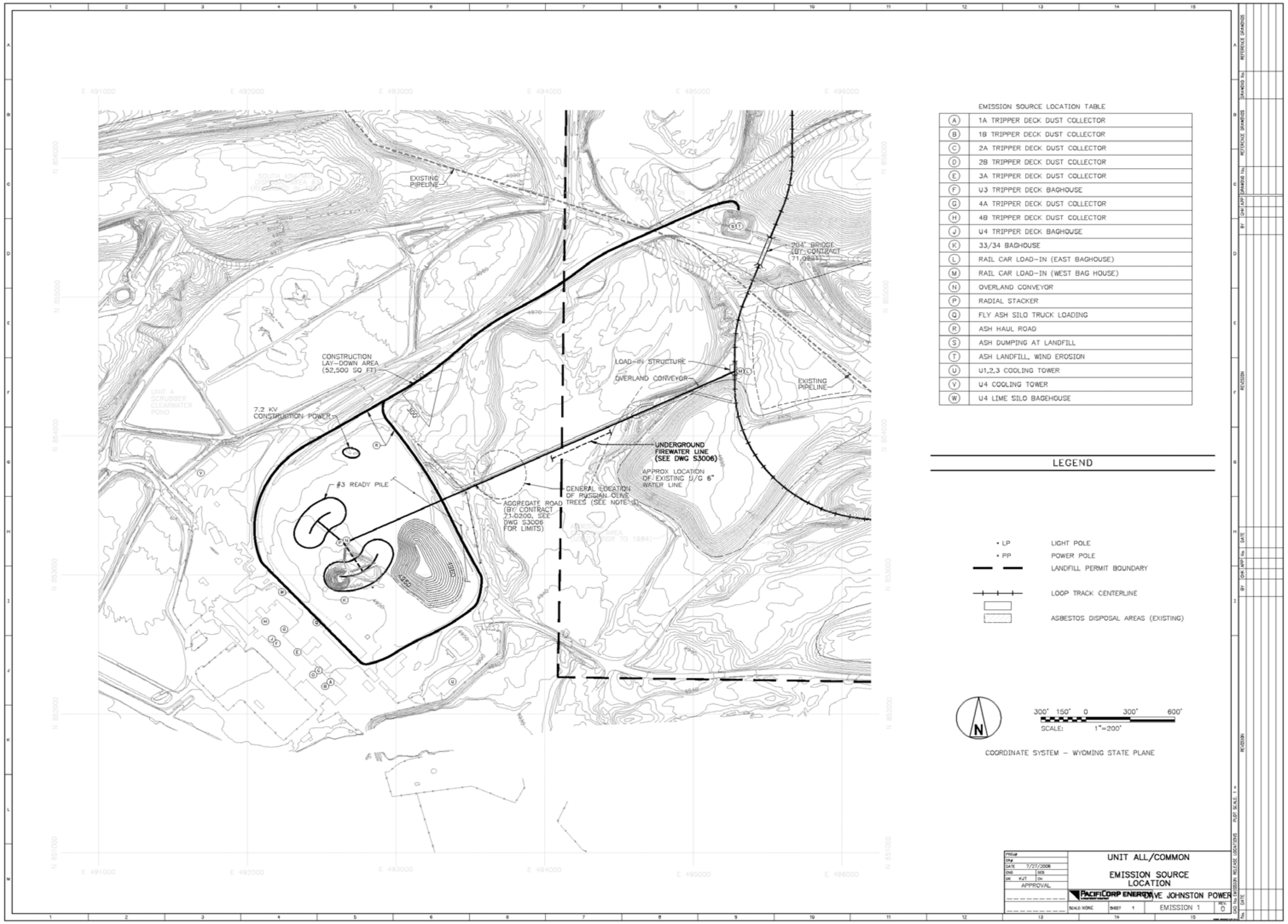


Figure 2 – Dave Johnston Aerial Site Photo

15.0 Appendix H

Modeling Protocols and Results

APPENDIX H

DISPERSION MODELING RESULTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF FIGURES
(Continued, Page 2 of 2)

1.0 INTRODUCTION AND SUMMARY

1.1 INTRODUCTION

PacifiCorp proposes several projects to modify the four existing coal-fired units at the Dave Johnston plant. As a result of the proposed modifications, only CO emissions will increase. Nitrogen oxides (NO_x), sulfur dioxide (SO_2), and particulate matter less than or equal to 10 micrometers (PM_{10}) emissions will remain the same. The increase in CO emissions will be above the Prevention of Significant Deterioration (PSD) Significant Emission Rate (SER) of 100 tons per year (tpy) for CO. Therefore, CO will be subject to PSD regulations under Wyoming Air Quality Standards and Regulations (WAQSR), Chapter 6, Section 4(b)(i)(A)(I). In addition to meeting the PSD requirements, ambient air impacts from NO_x, SO_2, PM_{10}, lead, and fluoride emissions will be compared to the Wyoming Ambient Air Quality Standards (WAAQS).

Environmental Consulting & Technology, Inc. (ECT), has been retained by PacifiCorp to perform the air quality analysis. This air quality analysis supplements the permit application for the proposed modifications. The purpose of this Appendix is to:

- Further define the modeling approach discussed in the modeling protocol.
- Identify the emissions data, meteorological data, and dispersion model used.
- Present the modeling results and discuss any potential impacts.

1.2 SUMMARY

Refined modeling, using a dense receptor grid and 4 years of onsite meteorology (1998, 2000, 2001, and 2002), was conducted to determine air quality impacts for CO, NO_x, SO_2, PM_{10}, lead, and fluoride emissions from the Dave Johnston plant. The modeling results show that the CO impacts were below the PSD significant impact levels (SIL) and NO_x, SO_2, PM_{10}, lead, and fluoride impacts were below the WAAQS. Accordingly, the proposed modifications to the Dave Johnston plant will not cause any exceedances of the WAAQS.

Section 2.0 of the report describes the applicable regulatory requirements. Section 3.0 provides a site description for the Dave Johnston facility. Section 4.0 contains the modeling approach and input data for modeling. Section 5.0 summarizes the results of the modeling analysis. A description of the modeling files, used to perform the modeling analysis, can be found in Attachment A. The electronic modeling files are on the enclosed CD.

This appendix is submitted to Wyoming Department of Environmental Quality (WDEQ) in fulfillment of the PSD requirements and WDEQ's request for a WAAQS analysis.

2.0 AIR QUALITY STANDARDS AND THEIR APPLICABILITY

As a result of the 1977 Clean Air Act (CAA) Amendments, the U.S. Environmental Protection Agency (EPA) has enacted primary and secondary National Ambient Air Quality Standards (NAAQS) for six air pollutants (40 Code Federal Regulations [CFR] 50). Primary NAAQS are intended to protect the public health, and secondary NAAQS are intended to protect the public welfare from any known or anticipated adverse effects associated with the presence of pollutants in the ambient air. Wyoming has adopted most of the NAAQS for the criteria pollutants, and they have produced AAQS for additional pollutants, i.e. fluorides, hydrogen sulfide, suspended sulfates, and odors. Table 2-1 presents the current WAAQS standards for NO_2, SO_2, PM_{10}, CO, ozone, lead, and fluorides.

A source impact analysis must be performed for any modification that proposes an increase in emissions above the PSD SER. EPA requires the use of atmospheric dispersion models in performing an ambient impact analysis, estimating baseline and future air quality levels, and determining compliance with WAAQS and allowable PSD increments. Designated EPA models must normally be used in performing the impact analysis. Specific applications for other than EPA-recommended models require prior approval. Guidance for the use and application of dispersion models is presented in the EPA publication, *Guideline on Air Quality Models (Revised)* (GAQM), as published in Appendix W to 40 CFR 51. Criteria pollutants may be exempt from the full source impact analysis if the net increase in impacts due to the new source or modification is below the appropriate SIL, as presented in Table 2-2. Accordingly, CO impacts are to be initially compared to the CO SIL to determine if further analysis is required.

Table 2-1. Wyoming Ambient Air Quality Standards (WAAQS)

Pollutant	Averaging Time	WAAQS ($\mu g/m^3$) Primary	Secondary
PM_{10}	Annual arithmetic mean	50	50
	24-hour maximum*	150	150
$PM_{2.5}$	Annual arithmetic mean	15	15
	24-hour maximum†	65	65
SO_2	Annual arithmetic mean	60	NA
	24-hour maximum‡	260	NA
	3-hour maximum‡	NA	1,300
NO_2	Annual arithmetic mean	100	100
CO	8-hour maximum‡	10,000	NA
	1-hour maximum‡	40,000	NA
Ozone	8-hour maximum**	157	157
Lead	Calendar quarter arithmetic mean	1.5	1.5
Fluorides	Annual arithmetic mean	NA	23,310
	30-day maximum	0.4	NA
	7-day maximum	0.5	NA
	24-hour maximum	1.8	NA
	12-hour maximum	3.0	NA

Note: NA = not applicable.

*Standard is attained when the 99th percentile 24-hour concentration is less than or equal to the standard.
†Standard is attained when the 98th percentile 24-hour concentration is less than or equal to the standard.
‡Maximum concentration not to be exceeded more than once per year.
**Standard is attained when the average of the annual 4th highest daily maximum 8-hour average concentration is less than or equal to the standard.

Sources: WAQSR, 2006.
ECT, 2006.

Table 2-2. PSD Significant Impact Levels for Criteria Pollutants

Pollutant	Averaging Period	Concentration ($\mu g/m^3$)
SO_2	Annual	1
	24-Hour	5
	3-Hour	25
PM_{10}	Annual	1
	24-Hour	5
NO_x	Annual	1
CO	8-Hour	500
	1-Hour	2,000
Lead	Quarterly	0.03

Sources: 40 CFR 51.165(b)(2).
WAQSR, Section 4.
ECT, 2006.

3.0 SITE DESCRIPTION

The Dave Johnston plant is located in Converse County, Wyoming, approximately 5 miles southeast of Glenrock and approximately 35 miles east of Casper. The project site is located along the North Platte River. The surrounding area is sparsely populated. Figures 3-1 and 3-2 show the location of the Dave Johnston Plant on a street map and a topographic map, respectively.

Major buildings and structures at the Dave Johnston Plant are shown on the site plan provided in Appendix G the permit application. The dimensions (i.e., length, width, and height) of each major facility/structure are provided in Table 3-1. All entrances to the plant site have a security gate to control site access. The site is composed of multiple sections in which each section is fenced. The fence line will be discussed in Section 4.7.

The base elevation of the site near the coal-fired units is approximately 4,950 feet above mean sea level (ft-msl). Elevations on the property vary from 4,940 to 5,040 ft-msl. The terrain immediately surrounding the site is relatively flat and varies from 4,880 to 5,250 ft-msl. Terrain to the south of the site gradually rises for approximately 8 kilometers (km) and then increases more dramatically. Elevations of approximately 6,500 ft-msl can be found at a distance of approximately 10 km from the site.

M:/ACAD/060313/Vicinity.mxd

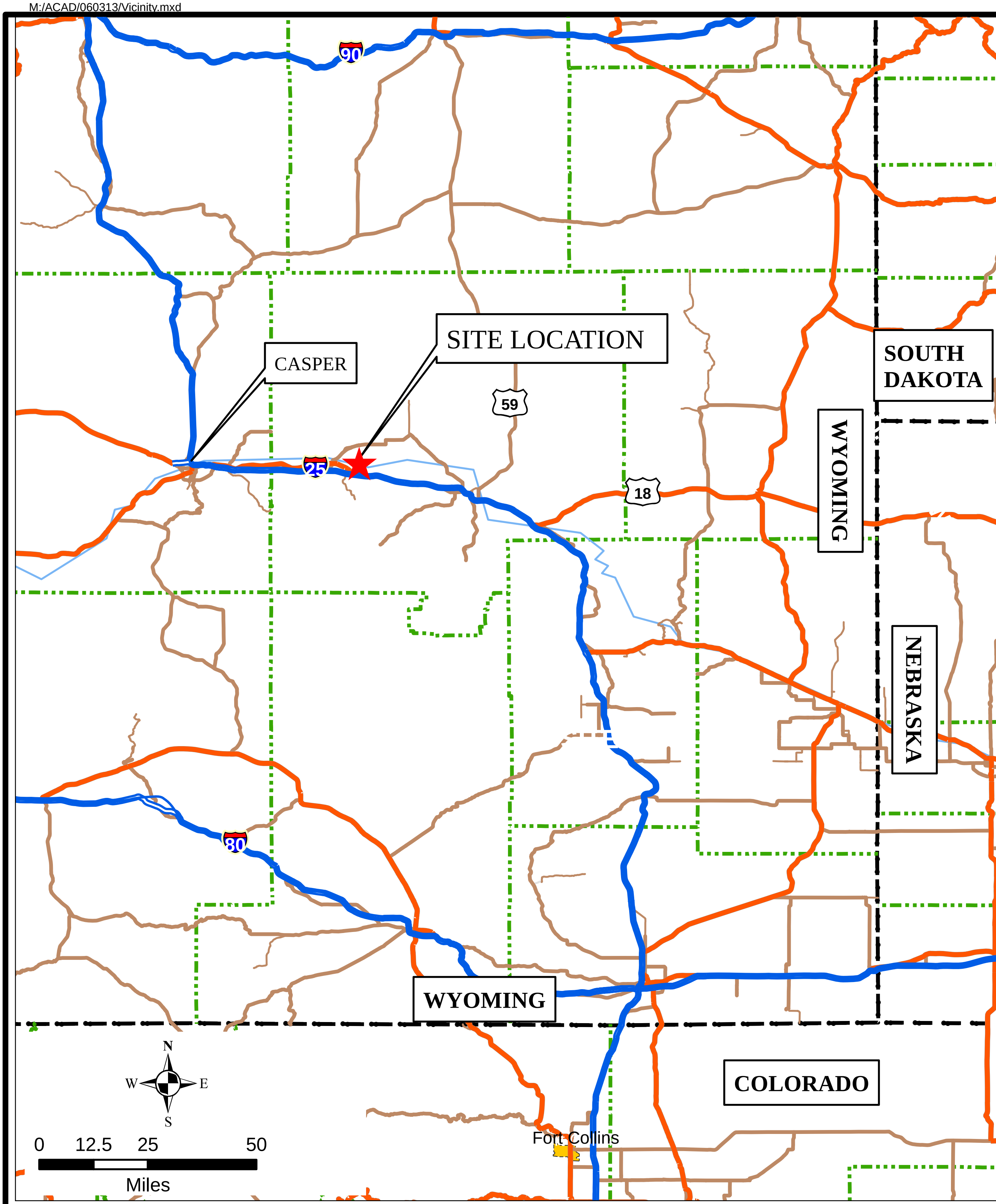


FIGURE 3-1.
SITE LOCATION
DAVE JOHNSTON PLANT
CONVERSE COUNTY, WYOMING

Sources: ESRI Street Map; ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

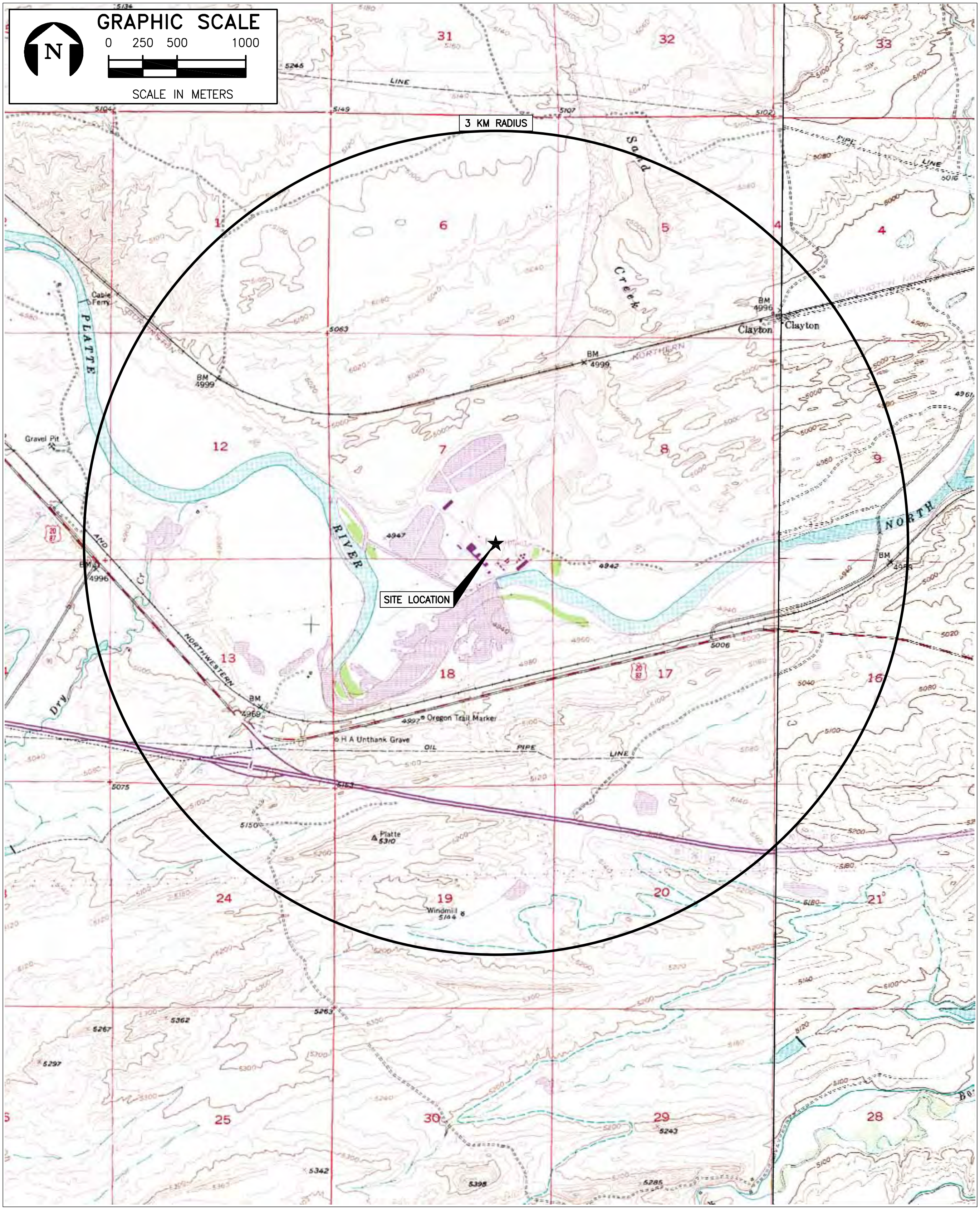


FIGURE 3-2.

LOCATION OF DAVE JOHNSTON PLANT

Sources: USGS Quad: Glenrock & Careyhurst, WY, 1974; ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

Table 3-1. Building/Structure Dimensions for Dave Johnston

Building/Structure	Dimensions		
	Width (meters)	Length (meters)	Height (meters)
Coal Boiler Unit 1	18.1	29.2	52.4
Coal Boiler Unit 2	19.0	29.7	52.4
New Coal Boiler Unit 3	25.5	16.8	57.8
New Coal Boiler Unit 4	20.4*		51.8
Admin. Building	20.4*		51.8
AQC Breaker Bldg.	12.4	22.9	9.1
Ash Silo-South (Tier 1)	10.0	12.6	6.1
Ash Silo-South (Tier 2)	9.8*		15.2
Ash Silo-North (Tier 1)	16.8	9.8	6.1
Ash Silo-North (Tier 2)	9.8*		15.2
South Coal Loading Hopper	15.9	6.5	24.4
North Coal Loading Hopper	6.4	11.1	24.4
Coal Yard Maintenence Bldg.	15.2	18.3	6.1
Cooling Tower for Units 1-3	79.6	21.1	18.3
Cooling Tower for Unit 4	72.6	20.5	15.2
No. 1 Crusher House	7.5	7.4	48.5
No. 2 Crusher House	8.5	9.6	48.5
No. 3 Crusher House	7.7	7.4	48.5
Floc Filter Plant	10.1	18.4	9.1
Plant Garage	51.7	24.7	15.2
Hazardous Material Storage	12.3	7.3	15.2
High Tank	9.1*		36.6
Ignition Oil Tank	7.6*		7.3
Lignasite Pump House	5.7	12.3	22.9
Lime System Building	16.5	4.6	24.4
Maintenence Shop	33.1	31.5	41.6
Maintenence Storage for Unit 4	6.9	6.9	9.1
Mill Shop	12.5	17.4	15.2
Heavy Oil Pump House	21.3	4.7	6.1
Unit 3 Old Stack	7.6*		76.4
Unit 2 Old Stack	7.6*		76.4
Unit 1 Old Stack	7.6*		76.4
Ready Pile No. 1 (Tier 1)	50.6*		4.4
Ready Pile No. 1 (Tier 2)	38*		8.8
Ready Pile No. 1 (Tier 3)	25.3*		13.3
Ready Pile No. 1 (Tier 4)	17.7*		17.7
Ready Pile No. 2 South (Tier 1)	68.6*		4.0
Ready Pile No. 2 South (Tier 2)	53.3*		7.9
Ready Pile No. 2 South (Tier 3)	38.1*		11.9
Ready Pile No. 2 South (Tier 4)	22.9*		15.9
Ready Pile No. 2B (Tier 1)	68.6*		4.0

Table 3-1. Building/Structure Dimensions for Dave Johnston (Continued, Page 2 of 2)

Building/Structure	Dimensions		
	Width (meters)	Length (meters)	Height (meters)
Ready Pile No. 2B (Tier 2)	53.3*		7.9
Ready Pile No. 2B (Tier 3)	38.1*		11.9
Ready Pile No. 2B (Tier 4)	22.9*		15.9
Ready Pile No. 3 South (Tier 1)	73.2*		4.9
Ready Pile No. 3 South (Tier 2)	54.9*		9.8
Ready Pile No. 3 South (Tier 3)	36.6*		14.6
Ready Pile No. 3 South (Tier 4)	18.3*		19.5
Ready Pile No. 3 North (Tier 1)	73.2*		4.9
Ready Pile No. 3 North (Tier 2)	54.9*		9.8
Ready Pile No. 3 North (Tier 3)	36.6*		14.6
Ready Pile No. 3 North (Tier 4)	18.3*		19.5
ESPs for Units 1 through 3	93.9	33.1	42.7
Recycle Pump House	6.0	30.3	15.2
New Unit 3 Baghouse	22.0	30.8	28.0
New Unit 4 Baghouse	22.0	30.8	28.0
New Units 3/4 Waste Ash Silo	7.9*		23.5
Coal Storage Silo for Units 1 and 2	76.4	17.0	48.8
Coal Storage Silo for Unit 3	83.8	12.4	50.3
Storage Building No. 1	33.5	15.1	30.5
Storage Building No. 2	12.8	11.4	15.2
Storage Building No. 3	12.0	4.2	9.1
Storage Buliding No. 4	7.7	21.7	6.1
Main Fuel Tank A	15.2*		13.4
Main Fuel Tank B	15.2*		13.4
Main Fuel Tank C	7.6*		9.1
Training Bldg	29.9	12.4	6.1
Turbine Generator Building	230.7	18.2	45.7
Unit 3 Steam Generator	23.5	10.8	38.1
Unit 4 South Silo	54.3	10.5	50.3
Unit 4 North Silos	10.1	54.2	50.3
Units 3/4 Lime Silo	9.8*		36.7
Units 3/4 Lime Prep, Ash Recycle Bldg	24.4	46.3	23.8
Units 1/2 Stack Enclosure	15.9*		152.4
Units 3/4 Stack Enclosure	14.1*		152.4
Warehouse	78.9	18.5	24.4

*Diameter.

Sources: PacifiCorp, 2007.
ECT, 2007.

4.0 MODELING APPROACH AND INPUT DATA

4.1 MODELING APPROACH

The primary objective of the air quality analysis is to compare the ambient CO impacts caused by the proposed modifications, with the PSD SIL. The remainder of the air quality analysis will include comparisons of NO_x, SO_2, PM_{10}, lead, and fluoride impacts against the WAAQS.

To achieve the primary objective, usually the CO impacts caused by the proposed modification alone are compared to the SIL. For this study, a conservative approach was taken by using the total CO emissions, including existing emissions, for the modeling analysis. If the modeled CO impacts are below the specified PSD SIL, then no further study would be required. The SIL are shown in Table 2-2. If the impacts of the proposed modifications are found to be significant, further analyses, considering all existing sources and background pollutant concentrations, are required.

To achieve the secondary objective, facility-wide emission rates were determined for NO_x, SO_2, PM_{10}, lead, and fluorides throughout the Dave Johnston plant. These emission sources were combined with significant emission sources from other facilities within 50 km of Dave Johnston. The total impact caused by the facilities was added to the respective ambient concentrations, and then compared to the WAAQS shown in Table 2-1.

The air quality modeling analysis was conducted in a manner consistent with EPA's GAQM and standard practices. This includes the use of regulatory default options, as appropriate. Specifics of the modeling approach are presented in the following paragraphs.

4.2 MODEL SELECTION AND USE

According to the modeling protocol submitted on July 24, 2006, the current version of the Industrial Source Complex-Plume Rise Model Enhancements (ISC-PRIME) model, Version 04269, was used to obtain ambient air impacts from all pollutants included in this study. Because of some unavoidable delays, submittal of this modeling analysis has been delayed, but the selection of ISC-PRIME remains valid, since an approved modeling protocol was agreed upon during the transition period of AERMOD or prior to the December 9, 2006. As stated in the GAQM, "…applications of ISC3 with approved protocols may be accepted…". For the purposes of this study ISC-PRIME is considered an acceptable *Alternative* model which has been proven previously to be reliable by EPA.

The ISC-PRIME model is a steady-state Gaussian plume model that can be used to assess potential air quality impacts from a wide variety of sources. It is capable of calculating concentrations for averaging times ranging from 1 hour to annual. Principal features of the ISC-PRIME model are summarized as follows:

- EPA has previously been approved the use of ISC-PRIME to address compliance with air quality standards in the United States.
- ISC-PRIME is capable of predicting impacts from multiple sources (including stack, area, and volume sources) that are distributed over large areas.
- Appropriate in areas of flat or elevated terrain.
- Rural or urban mode options can be selected.
- Either Cartesian or polar receptor coordinate grids can be used.
- Addresses potential for building downwash to occur.

The ISC-PRIME model calculates concentrations due to stack sources using the steady-state Gaussian plume equations for a continuous source. The plume rise equations developed for ISC-PRIME, including the momentum terms, are used to calculate plume rise. A wind profile exponent law is used to adjust the observed mean windspeed from the measurement height to the emission height, for the plume rise and concentration calculations. The Pasquill-Gifford dispersion curves are used to calculate the horizontal standard deviation (σ_y) and vertical standard deviation (σ_z) of the plume spread.

Procedures applicable to the ISC-PRIME dispersion model specified in EPA's 1999 GAQM were followed in conducting the refined dispersion modeling. In particular, the ISC-PRIME model control pathway MODELOPT keyword parameters DFAULT, CONC, and RURAL were selected. Selection of the parameter DFAULT, which specifies use of the regulatory default options, was recommended by the GAQM. The CONC and

RURAL parameters specify calculation of concentrations and use of rural dispersion, respectively.

ISC-PRIME Version 04269 was confirmed by the EPA Support Center for Regulatory Models (SCRAM) Internet site to be the latest available ISC-PRIME model code.

4.3 AREA DESCRIPTION

Area characteristics in the vicinity of proposed emission sources are important in determining model selection and use. The first consideration is whether the area is rural or urban, since dispersion rates differ between these two classifications. In general, urban areas cause greater rates of dispersion because of increased turbulent mixing and buoyancy-induced mixing. This is due to the combination of greater surface roughness caused by more buildings and structures and greater amount of heat released from concrete and similar surfaces. EPA guidance provides two procedures to determine whether the character of an area is predominantly urban or rural. One procedure is based on land use typing and the other is based on population density. The land use typing method utilizes the work of Auer (Auer, 1978) and is preferred by EPA because it is meteorologically oriented. In other words, the land use factors employed in making a rural/urban designation are also factors that have a direct effect on atmospheric dispersion. These factors include building types, extent of vegetated surface area and water surface area, types of industry and commerce, etc. Auer recommends that these land use factors be considered within 3 km of the source to be modeled to determine urban or rural classifications. The Auer land use typing method was used for the Dave Johnston air quality analysis.

The Auer technique recognizes four primary land use types: industrial (I), commercial (C), residential (R), and agricultural (A). Practically all industrial and commercial areas come under the heading of urban, while the agricultural areas are considered rural. However, those portions of generally industrial and commercial areas that are heavily vegetated can be considered rural in character. In the case of residential areas, the delineation between urban and rural is not as clear. For residential areas, Auer subdivides this land use type into four groupings based on building structures and associated vegetation. Accurate classification of the residential areas into proper groupings is important to determine the most appropriate land use classification for the study area.

U.S. Geological Survey (USGS) 7.5-minute series topographic maps for the area were used to identify the land use types within a 3-km radius area of the plant site (see Figure 3-2). Based on this analysis, clearly more than 50 percent of the land use surrounding the area is rural; therefore, rural dispersion coefficients and mixing heights were used.

4.4 TERRAIN CONSIDERATION

The GAQM defines *flat terrain* as terrain equal to the elevation of the stack base, *simple terrain* as terrain lower than the height of the stack top, and *complex terrain* as terrain above the height of the plume center line (for screening modeling, *complex terrain* is terrain above the height of the stack top). Terrain above the height of the stack top but below the height of the plume center line is defined as *intermediate terrain*.

USGS quadrangle maps covering the Dave Johnston plant site and vicinity (approximately 10-km radius) were studied for terrain features. The base elevation of the site is approximately 4,950 ft-msl. The terrain immediately surrounding the facility is relatively flat. Terrain to the south of the site reaches elevations of approximately 6,500 ft-msl at a distance of approximately 10 km from the site. Units 1 through 4 have stack heights of 500 feet above ground level (ft-agl). Therefore, with respect to Units 1 through 4, terrain above 5,450 ft-msl would be considered *complex*, as defined in the GAQM describing terrain above the height of stack tops.

Terrain of 6,000 ft-msl is found at a distance of approximately 8 km to the south of the site. Due to the complex terrain found within the vicinity of the site, elevations were assigned to each receptor using elevation data obtained from USGS Digital Elevation Model (DEM) files.

4.5 METEOROLOGICAL DATA

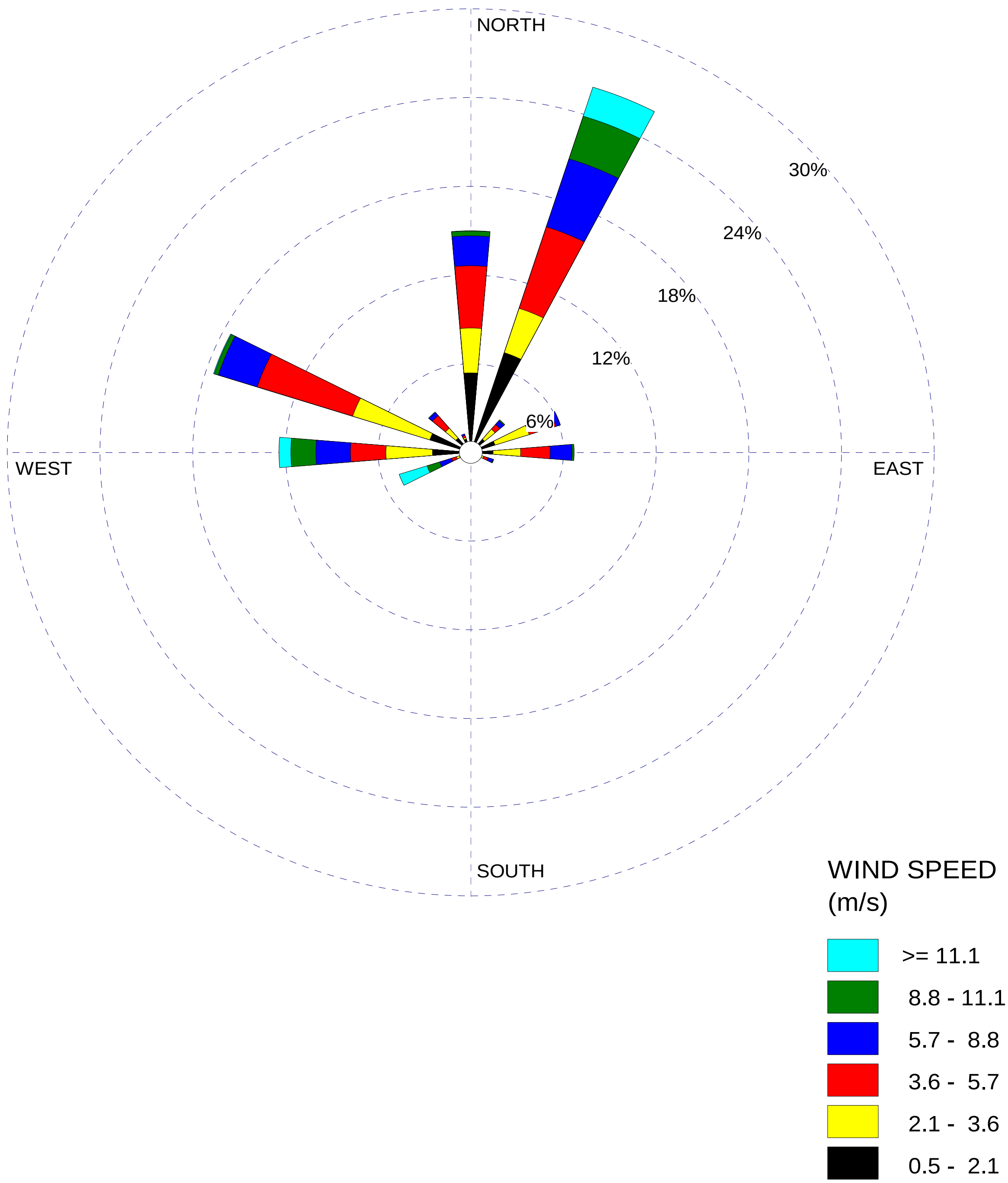
Detailed meteorological data are needed for modeling with the ISC dispersion models. The ISC-PRIME model requires a preprocessed data file compiled from hourly surface observations and concurrent twice-daily rawinsonde soundings (i.e., mixing height data).

Four years of onsite meteorological data (1998, 2000 through 2002) collected from an onsite meteorological tower were used. Data was collected for 1999, but the data set is only 60 percent complete for wind speed. Therefore, the 1999 data could not be used for this modeling analysis. Windroses for the onsite meteorological data, representing the years 1998 through 2002, are shown in Figures 4-1 through 4-5.

The onsite surface meteorological data does not include cloud cover data. Cloud cover and ceiling height data were obtained from the Casper Natrana County International Airport (WBAN 24089), which is approximately 38 miles west-northwest of the site.

The onsite windspeed, wind direction, temperature, and relative humidity data from the Dave Johnston site is more than 97 percent complete for 1998, 2000, 2001, and 2002, with years 1998, 2001, and 2002 being more than 99.5 percent complete. Reviewing the data on a quarterly basis, the minimum quarter of completeness is 92.3 percent and occurs during the summer of 2000. Any missing meteorology data was substituted according to EPA's *objective procedure*. If two or more hours are missing, then the nearest available data was reviewed to determine an appropriate value to substitute. For example, if two hours of data are missing, then the first hour was filled with the preceding hour, and the second hour was filled by the following hour. The ceiling height data was also reviewed to obtain an appropriate value to substitute. A cloud cover code of "0" is used if the ceiling height is unlimited, and a code of "7" is used if the ceiling height is less than or equal to 7,000 ft. The method of substitution of missing meteorological data can be found in Attachment B.

The mixing height data was calculated by National Climatic Data Center (NCDC) using data from the Casper Natrana County International Airport and the Riverton Regional Airport (WBAN 24061). ECT filled in missing data using the EPA's *objective procedure*.



Calms: 0.73%

Data availability: 99.0%

FIGURE 4-1.

ANNUAL WINDROSE FOR ONSITE MET. DATA (1998)
DAVE JOHNSON PLANT

Sources: PacifiCorp, 2006. ECT, 2006.

Environmental Consulting & Technology, Inc.

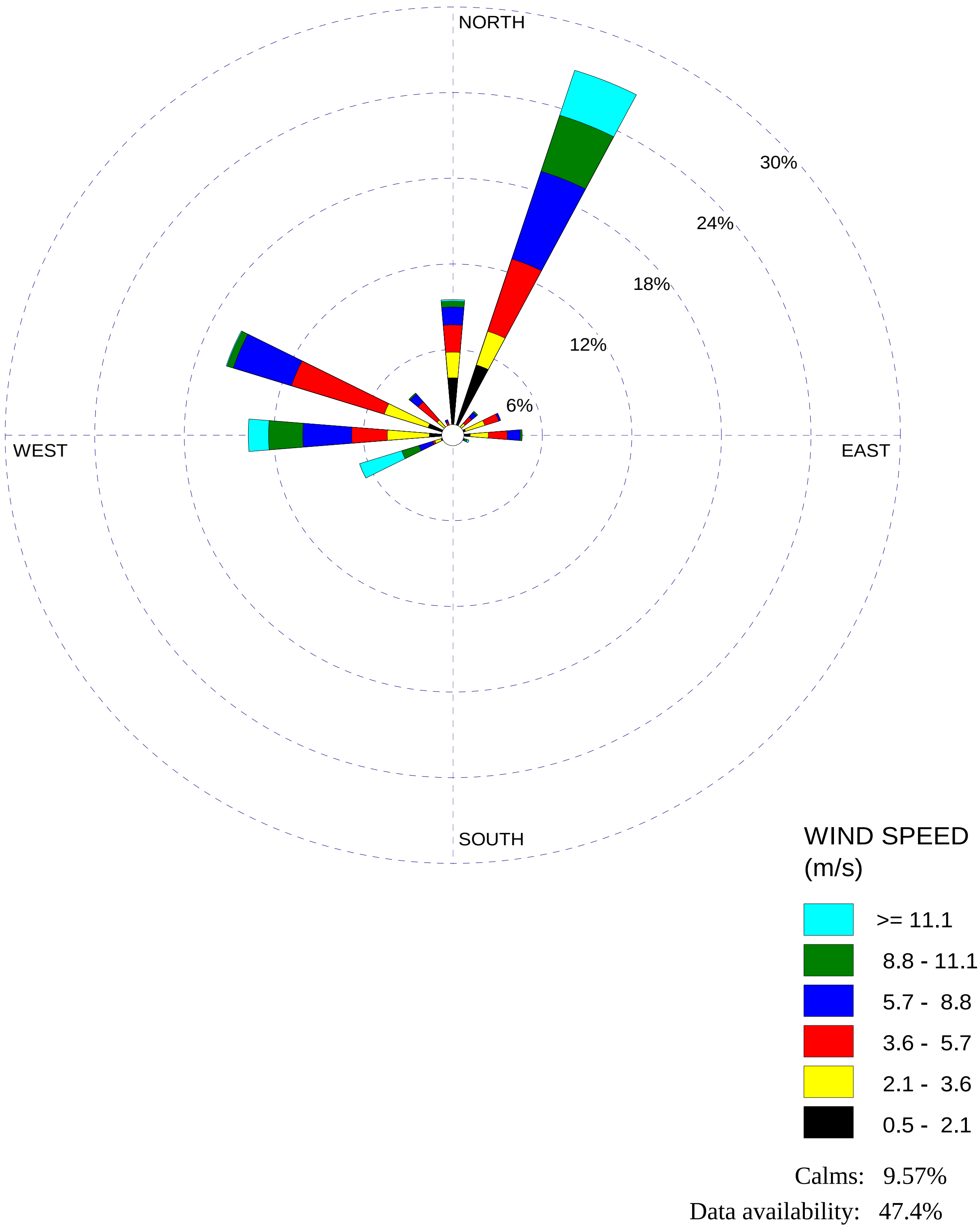


FIGURE 4-2.

ANNUAL WINDROSE FOR ONSITE MET. DATA (1999)
DAVE JOHNSON PLANT

Sources: PacifiCorp, 2006. ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

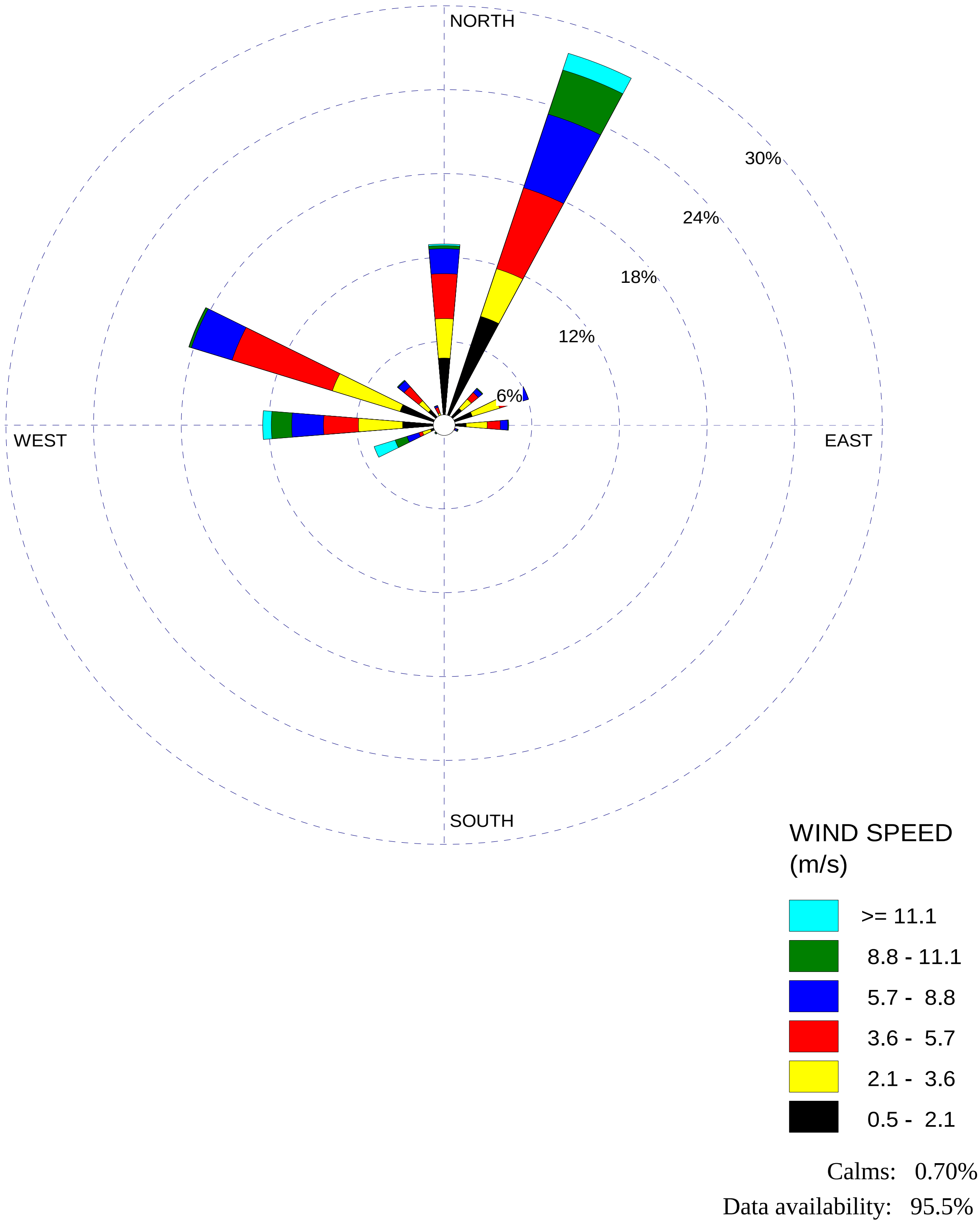


FIGURE 4-3.

ANNUAL WINDROSE FOR ONSITE MET. DATA (2000)
DAVE JOHNSON PLANT

Sources: PacifiCorp, 2006. ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

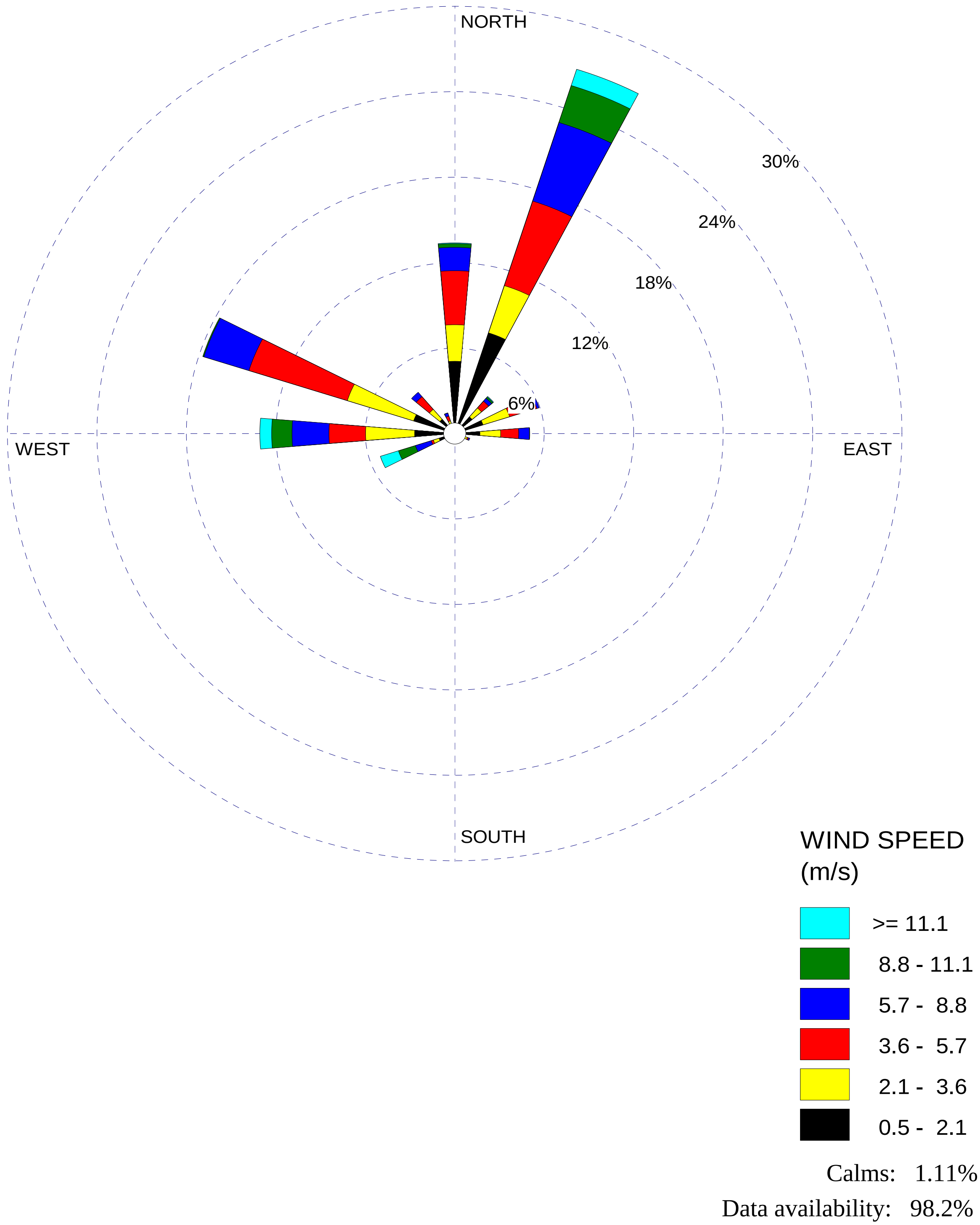


FIGURE 4-4.

ANNUAL WINDROSE FOR ONSITE MET. DATA (2001)
DAVE JOHNSON PLANT

Sources: PacifiCorp, 2006. ECT, 2006.

Environmental Consulting & Technology, Inc.

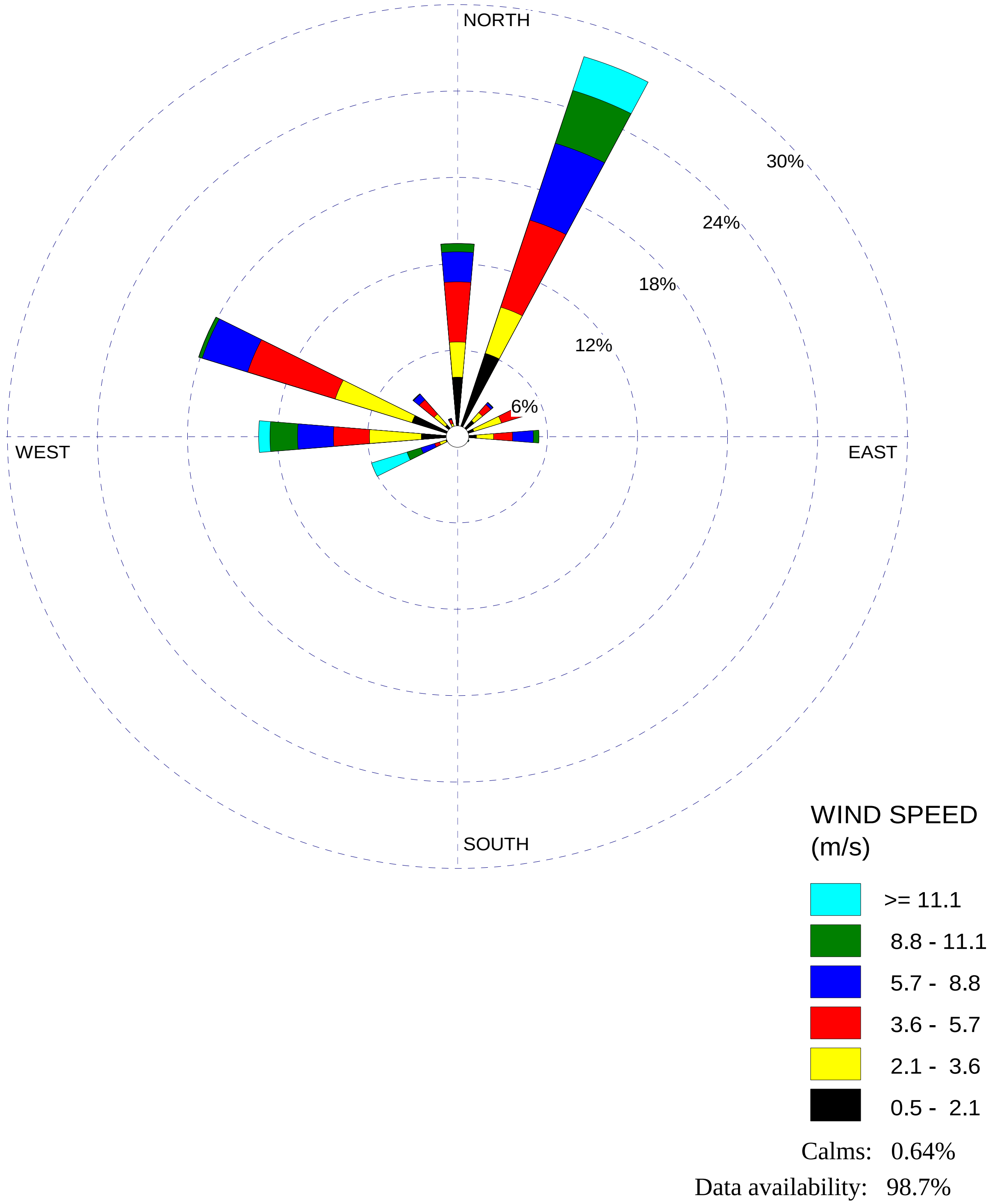


FIGURE 4-5.

ANNUAL WINDROSE FOR ONSITE MET. DATA (2002)
DAVE JOHNSON PLANT

Sources: PacifiCorp, 2006. ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

If one mixing height is missing, then the average of the proceeding and successive heights was substituted. For larger data gaps, interpolation between the series of mixing heights before and after the gap was used to fill the missing values.

The onsite and airport surface data were arranged in CD144 format. PCRAMMET was used to process the surface data and twice-daily mixing height observations from Riverton, Wyoming, to create the meteorological data set to be used by ISC-PRIME.

4.6 BUILDING WAKE EFFECTS

The CAA Amendments of 1990 require the degree of emission limitation required for control of any pollutant not be affected by a stack height that exceeds good engineering practice (GEP) or any other dispersion technique. On July 8, 1985, EPA promulgated final stack height regulations (40 CFR 51.100[ii]). For stacks in existence on January 12, 1979, but constructed after December 31, 1970, GEP stack height is defined as the highest of 65 meters, or a height established by applying the formula:

$$Hg = 2.5\ H$$

where: Hg = GEP stack height.
H = height of the structure or nearby structure.

Nearby is defined as a distance up to five times the lesser of the height or width dimension of a structure or terrain feature, but not greater than 800 meters. While GEP stack height regulations require that stack height used in modeling for determining compliance with NAAQS and PSD increments not exceed the GEP stack height, the actual stack height may be greater. Guidelines for determining GEP stack height have been issued by EPA (1985).

Since the stacks for existing boiler Units 1 through 3 was built in 1976, the above equation was used to calculate the GEP stack height. The height of the coal boiler Unit 4 is determined as a nearby structure and has a building height of 205 ft. Using the existing boiler Unit 4 height as H, the GEP stack height for the combined Units 1 through 3 stack is determined to be 512 ft. The actual stack heights for Units 1 through 3 is 500 ft, which is below the determined GEP stack height.

For the new Unit 3 and 4 boiler stacks, an enclosure will be built around both of the stacks. The enclosure will be circular with a diameter of 18 ft and a height of 500 ft. Adding this enclosure to the BPIP analysis, the resulting GEP stack heights for Units 3 and 4 is calculated at 568 ft. The proposed 500-ft stacks for Units 3 and 4 are below the calculated GEP for these units.

While the GEP stack height rules address the maximum stack height, which can be employed in a dispersion model analysis, stacks having heights lower than GEP stack height can potentially result in higher downwind concentrations due to building downwash ef fects. The ISC-PRIME dispersion model contains algorithms that assess the effect of building downwash. The following steps are employed in determining the effects of building downwash:

- A determination is made as to whether a particular stack is located in the area of influence of a building (i.e., within five times the lesser of the building's height or projected width). If the stack is not within this area, it will not be subject to downwash from that building.
- If a stack is within a building's area of influence, a determination is made as to whether it will be subject to downwash based on the heights of the stack and building. If the stack height to building height ratio is equal to or greater than 2.5, the stack will not be subject to downwash from that building.
- If both conditions in Items 1 and 2 are satisfied (a stack is within the area of influence of a building and has a stack height to building height ratio of less than 2.5), the stack will be subject to building downwash. The algorithim employed by BPIP-PRIME is used to determine the effects of the nearby building.
- The ISC-PRIME downwash input data consists of an array of 36 wind direction-specific building heights and projected widths for each stack. LB is defined as the lesser of the height and projected width of the building. For di-

rectionally dependent building downwash, wake effects are assumed to occur if a stack is situated within a rectangle composed of two lines perpendicular to the wind direction, one line at 5 LB downwind of the building and the other at 2 LB upwind of the building, and by two lines parallel to the wind, each at 0.5 LB away from the side of the building.

For the air quality analysis, the complex downwash analysis described above was performed using the current version of EPA's Building Profile Input Program—PRIME (BPIPPRM—Version 04274). The BPIPPRM program was used to determine the area of influence for each building, whether a particular stack is subject to building downwash, the area of influence for directionally dependent building downwash, and finally to generate the specific building dimension data required by the ISC-PRIME model. Dimensions of the building/structures evaluated for wake effects were previously shown on Table 3-1. A three-dimensional representation of the buildings used in the downwash analysis is presented in Figure 4-6.

4.7 RECEPTOR LOCATIONS

Receptors were placed at locations considered to be *ambient air*, which is defined as "that portion of the atmosphere, external to buildings, to which the general public has access." It is EPA policy that air quality impacts occurring at receptors on industrial property due to emission sources also located on the same industrial property do not count, with respect to determining compliance with PSD increments or AAQS.

The rectangular receptor grid included 100-meter spaced receptors out to approximately 2 km, 500-meter spaced receptors out to 5 km, 1-km spaced receptors out to 25 km, and 2-km spaced receptors out to 50 km, based on Universal Transverse Mercator (UTM) coordinate system. Receptors were also placed on the property line (or fence line) spaced every 50 meters. Additional 100-meter spaced grids were used to evaluate maximum impacts occurring outside of the near 100-meter spaced grid

Figure 4-7 shows the fence line receptors and near-field receptor grid placed on a topography map. Figure 4-8 shows the mid- and far-field receptor grids.

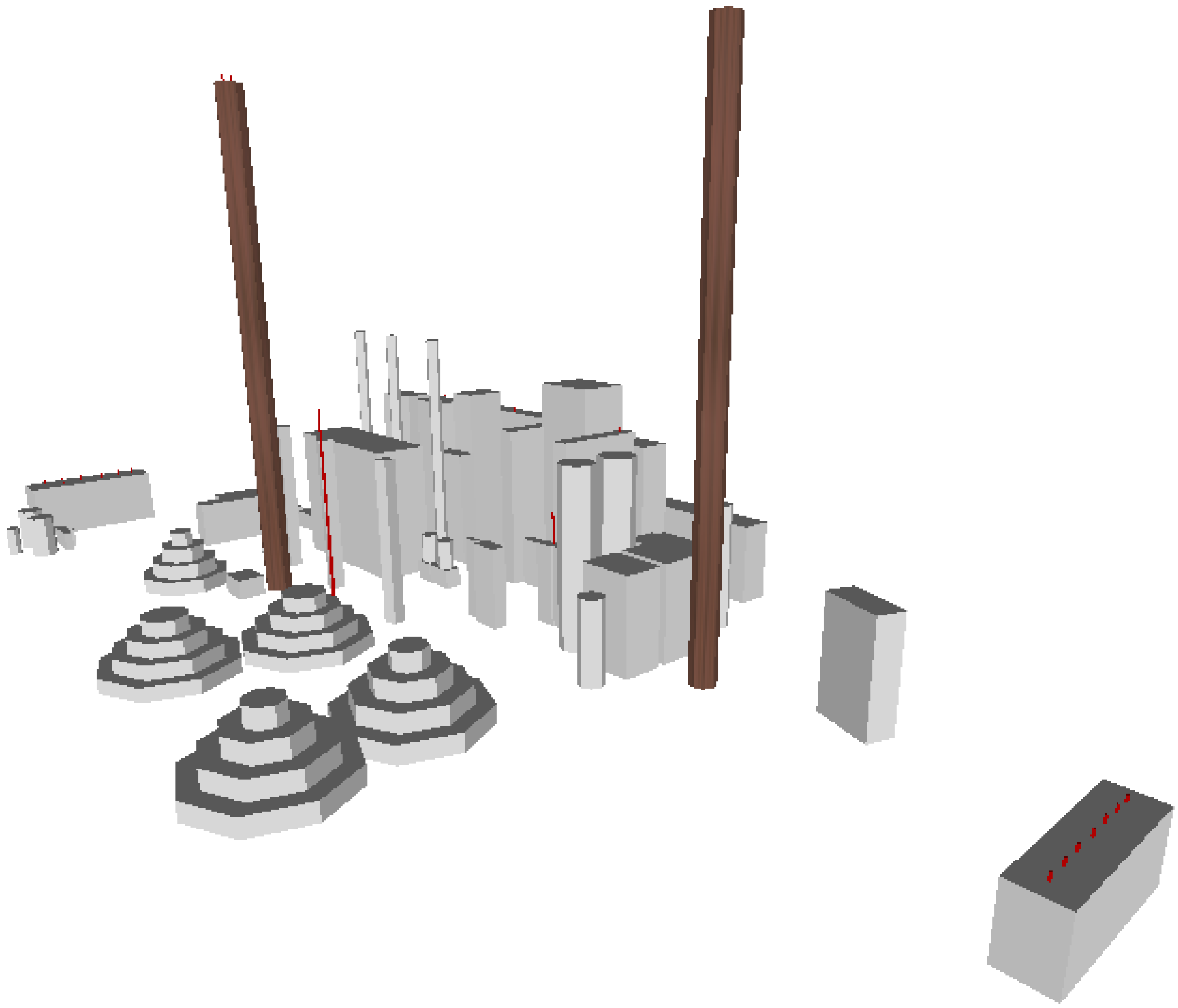


FIGURE 4-6.

BUILDING DOWNWASH PROFILE
DAVE JOHNSON PLANT

Source: ECT, 2007.

ECT
Environmental Consulting & Technology, Inc.

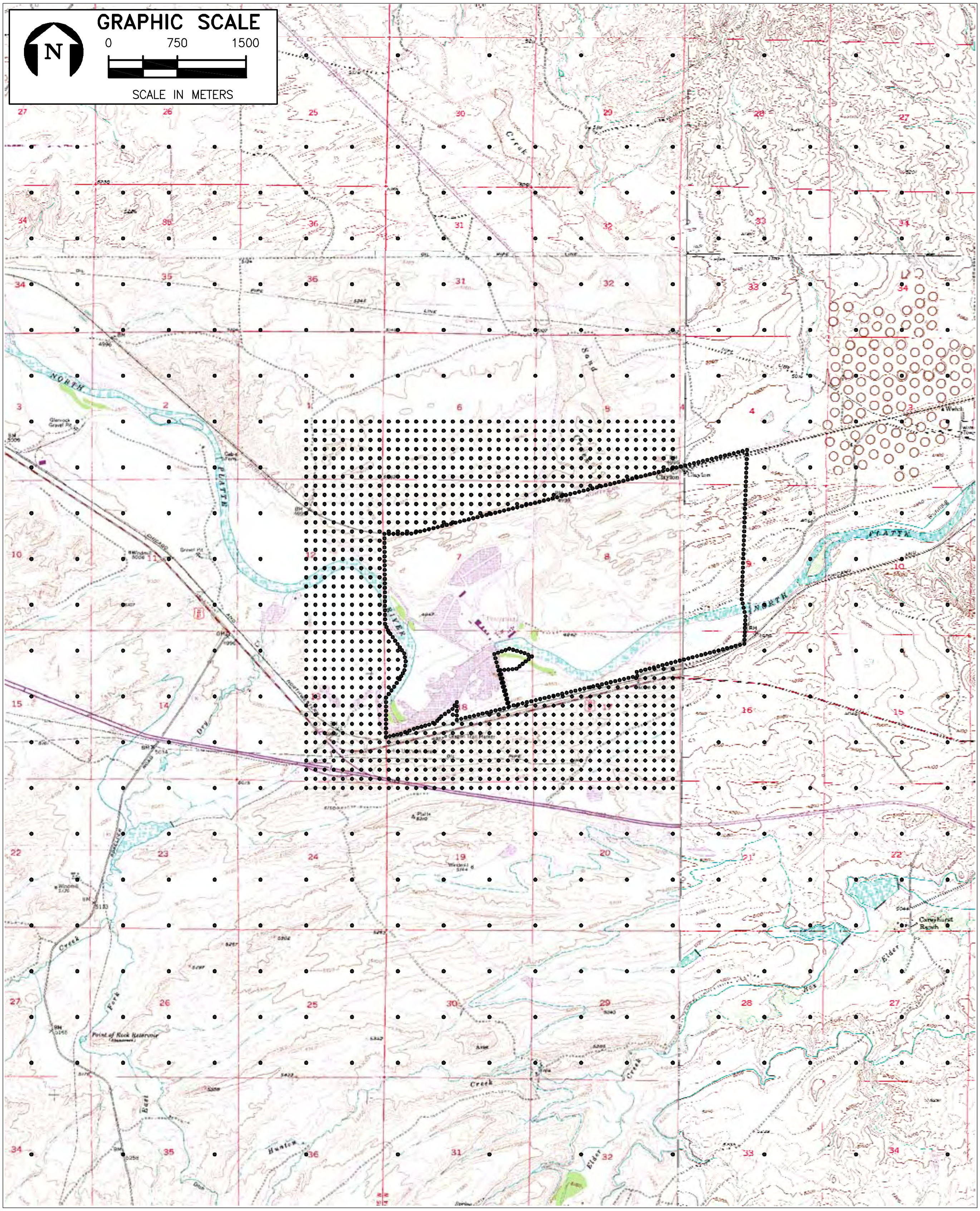


FIGURE 4-7.

LOCATION OF FENCE LINE AND NEAR-FIELD RECEPTORS

Sources: USGS Quad: Glenrock & Careyhurst, WY, 1974; ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

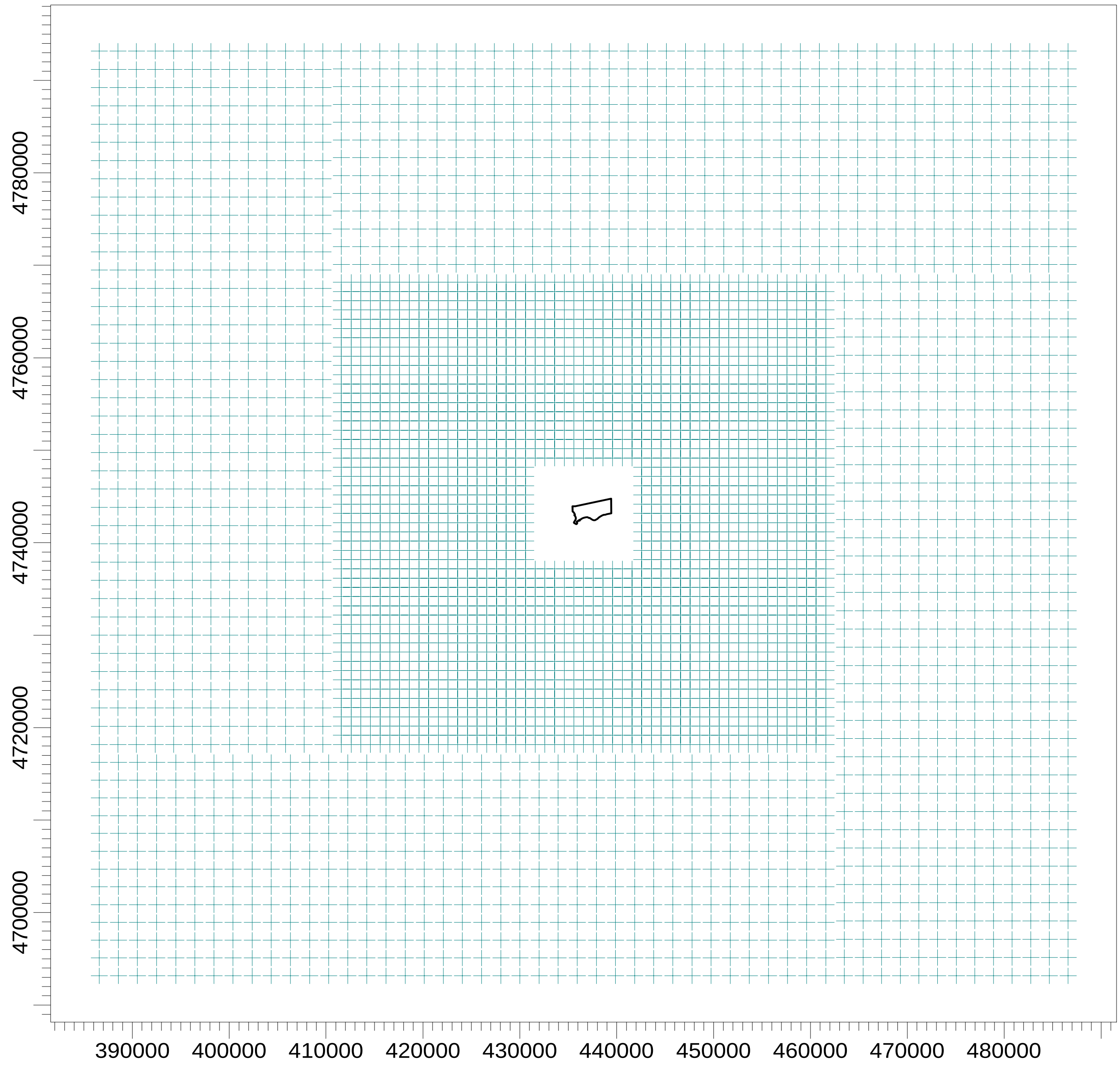


FIGURE 4-8

MID- AND FAR-FIELD RECEPTORS
1- AND 2-KM SPACING
Source: ECT, 2006.

Environmental Consulting & Technology, Inc.

It should be noted that a conservative approach was used to determine the location of the fence line. PacifiCorp's true fence line extends further than what was used for this modeling analysis, especially on the south end of the site along the North Platte River. The river was used as the property boundary when the actually southern boundary extends to the county road. This conservative approach was taken because PacifiCorp does grant public access to a small piece of land just southeast of the North Platte River damn. The submittal of this fence line for the modeling analysis does not prevent PacifiCorp from submitting a less conservative fence line for future modeling analyses.

4.8 EMISSION INVENTORY

Emission rates and stack parameters for the CO, NO_x, SO_2, and PM_{10} emission inventories are presented in Tables 4-1 through 4-4, respectively. The emission rates for Dave Johnston are derived in Appendix E of the permit application.

The stack parameters for Dave Johnston were provided by PacifiCorp. The offsite emission inventories were attained from WDEQ during a visit to the Cheyenne office. The emission inventories for some sources were further refined with assistance from WDEQ.

Table 4-1. CO Emission Inventory for the Dave Johnston PSD Signifance Analysis

Source	Source Code	UTM Location		Emission Rate (g/s)	Stack Height meters	Stack Temperature K	Stack Velocity m/s	Stack Diameter meters
		Easting	Northing					
Unit 1 coal-fired boiler	DJ1	436,651	4,742,960	4.62	152.4	422	28.7	3.353
Unit 2 coal-fired boiler	DJ2	436,648	4,742,957	4.62	152.4	422	28.7	3.353
Unit 3 coal-fired boiler	DJ3	436,402	4,743,110	88.2	152.4	361	22.3	5.486
Unit 4 coal-fired boiler	DJ4	436,397	4,743,105	118.4	152.4	361	22.3	5.486

Sources: WDEQ, 2006.
ECT, 2007.

Table 4-2. NO_x Emission Inventory for the Dave Johnston WAAQS Analysis

Source	Source Code	UTM Location Easting	UTM Location Northing	Emission Rate (g/s)	Stack Height meters	Stack Temperature K	Stack Velocity m/s	Stack Diameter meters
Dave Johnston Plant								
Unit 1 Coal-fired Boiler	DJ1	436,651	4,742,960	80.0	152.4	422	28.7	3.353
Unit 2 Coal-fired Boiler	DJ2	436,648	4,742,957	80.0	152.4	422	28.7	3.353
Unit 3 Coal-fired Boiler	DJ3	436,402	4,743,110	98.8	152.4	361	22.3	5.486
Unit 4 Coal-fired Boiler	DJ4	436,397	4,743,105	100.7	152.4	361	22.3	5.486
Sinclair Oil Company - Casper Refinery								
No. 4 Boiler	SRC1	398,624	4,745,609	2.02	17.7	458	6.19	1.369
No. 5 Boiler	SRC2	398,627	4,745,619	3.01	18.0	544	7.40	1.676
No. 6 Boiler	SRC3	398,629	4,745,604	0.97	41.1	527	2.49	2.134
No. 7 Boiler	SRC4	398,624	4,745,600	4.14	17.7	539	26.88	0.914
Asphalt Heater	SRC5	398,743	4,745,629	0.14	10.4	811	9.62	0.518
B-2 No. 3 Crude Heater	SRC8	398,537	4,745,598	0.60	18.3	755	13.22	0.914
B-1 No. 4 Crude Heater	SRC9	398,495	4,745,588	3.25	41.4	550	12.90	1.372
B-3 No. 4 Crude Heater	SRC7	398,528	4,745,605	1.47	41.1	575	13.80	0.914
No. 4 Vacuum Heater	SRC6	398,543	4,745,598	0.72	18.3	783	8.12	0.914
B-1 No. 5 Crude Heater	SRC11	398,312	4,745,659	2.82	18.3	811	13.40	1.524
B-1 Pretreater Heater	SRC19	398,252	4,745,662	0.61	18.4	800	7.88	1.219
B-20-1 Reformer No. 1 Heater	SRC16	398,271	4,745,663	0.79	18.3	855	17.97	0.914
B-20-2 Reformer No. 2 Heater	SRC15	398,277	4,745,662	1.36	18.5	783	38.59	0.914
B-20-2 Reformer No. 3 Heater	SRC14	398,283	4,745,662	0.62	18.3	783	20.39	0.762
B-20-3 Stabilizer Reboiler	SRC13	398,288	4,745,663	0.28	13.3	783	9.00	0.762
B-2 Splitter Reboiler	SRC17	398,265	4,745,662	0.39	18.3	816	9.13	0.914
B-201 CHD Heater	SRC18	398,246	4,745,662	0.076	18.3	728	4.80	1.219
F-202 FCC Feed Heater	SRC20	398,235	4,745,740	1.15	24.4	755	14.80	1.271
Fluid Catalyt. Cracking (FCC) Unit	SRC25	398,260	4,745,748	4.47	45.7	668	25.89	1.311
Truck Dock Flare	SRC26	398,487	4,745,471	0.30	10.7	700	8.33	2.438
Refinery Flare	SRC24	398,260	4,745,849	0.18	61.0	1273	20.19	0.945
Storage Tank Flare	SRC33	398,560	4,746,020	0.37	13.7	1033	0.06	2.438
TGTU Sulfur Recov. Unit	SRC23	398387	4745685	0.08	30.5	348	5.33	0.762
Reformer Heaters 1, 2, and 3	SRC74	398390	4745600	0.38	24.4	644	17.77	1.219

C:\projects\Book1\42—11/21/2007

Table 4-2. NO_x Emission Inventory for the Dave Johnston WAAQS Analysis (Continued, Page 2 of 3)

Source	Source Code	UTM Location Easting	UTM Location Northing	Emission Rate (g/s)	Stack Height meters	Stack Temperature K	Stack Velocity m/s	Stack Diameter meters
Kinder Morgan - Casper Extraction Plant								
Ford B6PF-6006B Fire Pump Engine	E10	398,889	4,745,343	0.009	1.7	533	14.87	0.051
Ford B6PF-6006B Fire Pump Engine	E11	398,889	4,745,343	0.009	2.5	533	14.87	0.051
1000 hp Solar T-1000 Turbine	E2	398,985	4,745,451	0.441	6.4	756	64.30	0.457
1000 hp Solar T-1000 Turbine	E3	398,983	4,745,449	0.441	6.4	756	64.30	0.457
550 hp Ingersol Rand SVG-10 Engine	E4	398,970	4,745,424	0.459	10.1	589	18.80	0.305
680 hp Intersol Rand PSVG-10 Generator	E5	398,960	4,745,446	0.167	7.6	811	44.01	0.244
1000 hp Worthington SLCH-10	E6	398,876	4,745,390	5.556	19.8	644	33.30	0.305
2500 hp Cooper GMVH-10C Engine	E7	398,916	4,745,355	1.109	9.9	689	46.30	0.546
1000 hp Cooper GMVC-6 Engine	E8	398,877	4,745,383	4.448	19.8	650	51.10	0.396
1000 hp Cooper GMVC-6 Engine	E9	398,876	4,745,374	4.448	19.8	650	51.10	0.396
425 hp Ajax DPC-540LE	F023E	398,935	4,745,443	0.239	8.8	561	13.10	0.457
1.0 MMBtu/hr Enclosed Flare	F1	399,121	4,745,366	0.214	17.3	1273	20.00	0.305
1.0 MMBtu/hr Elevated Flare	F2	399,126	4,745,415	0.026	30.0	1273	20.00	0.203
0.75 MMBtu/hr Glycol Reboiler	H1	399,005	4,745,447	0.021	6.6	533	3.30	0.244
Lean Oil Reboiler (1 of 2 Stacks)	H21	399,000	4,745,449	0.114	19.4	533	13.17	1.219
Lean Oil Reboiler (2 of 2 Stacks)	H22	399,000	4,745,445	0.114	19.4	533	13.17	1.219
0.5 MMBtu/hr Glycol Preheater	H3	399,004	4,745,451	0.014	3.5	411	1.60	0.254
1.5 MMBtu/hr Water Tank Heater	H4	398,877	4,745,352	0.043	7.6	533	9.50	0.203
Kinder Morgan - Douglas Gas Plant								
White Superior 8G-825	DE1	470,876	4,737,734	0.366	4.6	726	38.10	0.253
White Superior 8G-825	DE2	470,886	4,737,734	0.366	4.6	723	38.10	0.253
White Superior 8G-825	DE3	470,989	4,737,734	0.366	4.6	709	38.10	0.253
White Superior 8G-825	DE4	470,905	4,737,734	0.366	4.6	714	38.10	0.253
Clark HRA-8	DE5	470,910	4,737,768	4.209	15.2	508	53.68	0.305
White Superior 8G-825	DE6	470,916	4,737,734	0.367	4.6	728	38.10	0.253

Table 4-2. NO_x Emission Inventory for the Dave Johnston WAAQS Analysis (Continued, Page 3 of 3)

Source	Source Code	UTM Location Easting	UTM Location Northing	Emission Rate (g/s)	Stack Height meters	Stack Temperature K	Stack Velocity m/s	Stack Diameter meters
Clark HRA-8	DE7	470,916	4,737,768	4.209	15.2	505	53.68	0.305
Clark RA-6	DE8	470,827	4,737,661	3.533	10.7	655	54.44	0.253
Clark RA-6	DE9	470,836	4,737,661	3.533	10.7	655	54.44	0.253
Clark HRA-6	DE10	470,843	4,737,661	3.158	9.8	555	59.13	0.253
Clark HRA-6	DE11	470,851	4,737,661	3.158	10.7	551	59.13	0.253
Clark HRA-6	DE12	470,859	4,737,661	3.158	10.7	555	59.13	0.253
Clark HRA-6	DE13	470,865	4,737,661	3.158	10.4	555	46.12	0.287
Clark HRA-6	DE14	470,874	4,737,661	3.158	10.4	555	59.13	0.253
Clark RA-6	DE15	470,887	4,737,661	3.53	10.7	655	54.44	0.253
White Superior 8G-825	DE16	470,922	4,737,661	0.366	4.6	720	38.10	0.253
Clark HRA-8	DE17	470,922	4,737,768	4.209	15.2	505	53.68	0.305
Clark RA-6	DE18	470,907	4,737,661	3.533	10.7	655	54.44	0.253
Clark HRA-6	DE19	470,915	4,737,661	3.158	10.4	559	46.12	0.287
Clark HRA-6	DE20	470,924	4,737,661	3.158	10.4	556	46.12	0.204
White Superior 8G-825	DE21	470,924	4,737,734	0.366	4.6	728	38.10	0.253
Chrysler 413 Firepump	DE22	470,807	4,737,683	0.179	3.4	533	94.95	0.064
John Deere 375DLQ	DE23	471,000	4,737,608	0.397	1.5	533	77.48	0.064
Hot Oil Heater	DH1	470,973	4,737,674	0.519	15.9	555	3.74	0.991
Hot Oil Heater	DH3	470,973	4,737,664	0.26	15.9	555	1.86	0.991

Sources: WDEQ, 2006.
ECT, 2007.

C:\projects\Book1\42—11/21/2007

Table 4-3. SO_2 Emission Inventory for the Dave Johnston WAAQS Analysis

Source	Source Code	UTM Location Easting	UTM Location Northing	Emission Rate (g/s)	Stack Height meters	Stack Temperature K	Stack Velocity m/s	Stack Diameter meters
Dave Johnston Plant								
Unit 1 Coal-fired Boiler	DJ1	436,651	4,742,960	196.8	152.4	422	28.7	3.353
Unit 2 Coal-fired Boiler	DJ2	436,648	4,742,957	196.8	152.4	422	28.7	3.353
Unit 3 Coal-fired Boiler	DJ3	436,402	4,743,110	52.9	152.4	361	22.3	5.486
Unit 4 Coal-fired Boiler	DJ4	436,397	4,743,105	88.8	152.4	361	22.3	5.486
Sinclair Oil Company - Casper Refinery								
No. 4 Boiler	SRC1	398,624	4,745,609	7.3	17.7	458	6.19	1.369
No. 5 Boiler	SRC2	398,627	4,745,619	10.9	18.0	544	7.40	1.676
No. 6 Boiler	SRC3	398,629	4,745,604	0.090	41.1	527	2.49	2.134
No. 7 Boiler	SRC4	398,624	4,745,600	18.1	17.7	539	26.88	0.914
Asphalt Heater	SRC5	398,743	4,745,629	0.01	10.4	811	9.62	0.518
B-2 No. 3 Crude Heater	SRC8	398,537	4,745,598	0.06	18.3	755	13.22	0.914
B-1 No. 4 Crude Heater	SRC9	398,495	4,745,588	10.8	41.4	550	12.90	1.372
B-3 No. 4 Crude Heater	SRC7	398,528	4,745,605	4.9	41.1	575	13.80	0.914
No. 4 Vacuum Heater	SRC6	398,543	4,745,598	0.07	18.3	783	8.12	0.914
B-1 No. 5 Crude Heater	SRC11	398,312	4,745,659	9.4	18.3	811	13.40	1.524
B-1 Pretreater Heater	SRC19	398,252	4,745,662	0.060	18.4	800	7.88	1.219
B-20-1 Reformer No. 1 Heater	SRC16	398,271	4,745,663	0.080	18.3	855	17.97	0.914
B-20-2 Reformer No. 2 Heater	SRC15	398,277	4,745,662	0.15	18.5	783	38.59	0.914
B-20-2 Reformer No. 3 Heater	SRC14	398,283	4,745,662	0.060	18.3	783	20.39	0.762
B-20-3 Stabilizer Reboiler	SRC13	398,288	4,745,663	0.030	13.3	783	9.00	0.762
B-2 Splitter Reboiler	SRC17	398,265	4,745,662	0.040	18.3	816	9.13	0.914
B-201 CHD Heater	SRC18	398,246	4,745,662	0.050	18.3	728	4.80	1.219
F-202 FCC Feed Heater	SRC20	398,235	4,745,740	0.13	24.4	755	14.80	1.271
Fluid Catalyt. Cracking (FCC) Unit	SRC25	398,260	4,745,748	31.1	45.7	668	25.89	1.311
Truck Dock Flare	SRC26	398,487	4,745,471	0.010	10.7	700	8.33	2.438
Refinery Flare	SRC24	398,260	4,745,849	0.93	61.0	1273	20.19	0.945
Storage Tank Flare	SRC33	398,560	4,746,020	0.40	13.7	1033	0.06	2.438
TGTU Sulfur Recov. Unit	SRC23	398,387	4,745,685	0.58	30.5	348	5.33	0.762
Reformer Heaters 1, 2, and 3	SRC74	398,390	4,745,600	0.24	24.4	644	17.77	1.219

Sources: WDEQ, 2006.
ECT, 2007.

C:\projects\Book1\43—11/21/2007

Table 4-4. PM_{10} Emission Inventory for the Dave Johnston WAAQS Analysis

Source	Source Code	UTM Location Easting	UTM Location Northing	Emission Rate (g/s)	Stack Height meters	Stack Temperature K	Stack Velocity m/s	Stack Diameter meters
Dave Johnston Plant								
Unit 1 Coal-fired Boiler	DJ1	436,651	4,742,960	40.0	152.4	422	28.7	3.353
Unit 2 Coal-fired Boiler	DJ2	436,648	4,742,957	40.0	152.4	422	28.7	3.353
Unit 3 Coal-fired Boiler	DJ3	436,402	4,743,110	5.3	152.4	361	22.3	5.486
Unit 4 Coal-fired Boiler	DJ4	436,397	4,743,105	8.9	152.4	361	22.3	5.486
1A Tripper Deck Dust Collector	TRIP1A	436,573	4,742,829	0.00743	50.3	433	20.73	0.305
1B Tripper Deck Dust Collector	TRIP1B	436,561	4,742,818	0.00743	50.3	330	19.81	0.305
2A Tripper Deck Dust Collector	TRIP2A	436,549	4,742,855	0.00557	50.3	294	14.29	0.305
2B Trippper Decker Dust Collector	TRIP2B	436,537	4,742,844	0.00255	48.8	294	3.47	0.610
3A Tripper Decker Dust Collector	TRIP3A	436,505	4,742,893	0.0724	51.8	294	8.35	0.610
U4 Tripper Baghouse	TRIP4	436,452	4,742,923	0.354	51.8	294	23.56	0.914
U3 Tripper Deck Baghouse	TRIP3	436,462	4,742,912	0.291	48.8	294	19.32	0.914
4B Tripper Decker Dust Collector	TRIP4B	436,436	4,742,964	0.0835	51.8	294	13.81	0.610
4A Trippper Decker Dust Collector	TRIP4A	436,478	4,742,942	0.111	51.8	294	11.13	0.610
Unit 4 Lime Silo Baghouse	LIME_U4	436,474	4,743,025	0.0223	32.6	283	17.37	0.305
33/34 Baghouse	33_34BAG	436,601	4,743,007	0.0334	61.0	411	26.52	4.267
Radial Stacker	RADIAL	436,592	4,743,133	0.0211	3.0	283	8.35	0.610
Overland Conveyor	OVER	436,606	4,743,138	0.00776	3.0	283	8.35	0.610
Rail Car Load-In (West Baghouse)	RAIL_WES	437,414	4,743,508	0.279	3.0	283	97.29	0.610
Rail Car Load-In (East Baghouse)	RAIL_EAS	437,428	4,743,506	0.221	3.0	283	97.29	0.610
Unit 4 Cooling Tower - Cell 1	COOL4_C1	436,288	4,743,267	0.659	16.8	300	7.86	7.620
Unit 4 Cooling Tower - Cell 2	COOL4_C2	436,294	4,743,273	0.659	16.8	300	7.86	7.620
Unit 4 Cooling Tower - Cell 3	COOL4_C3	436,300	4,743,278	0.659	16.8	300	7.86	7.620
Unit 4 Cooling Tower - Cell 4	COOL4_C4	436,307	4,743,285	0.659	16.8	300	7.86	7.620
Unit 4 Cooling Tower - Cell 5	COOL4_C5	436,315	4,743,292	0.659	16.8	300	7.86	7.620
Unit 4 Cooling Tower - Cell 6	COOL4_C6	436,322	4,743,299	0.659	16.8	300	7.86	7.620
Unit 4 Cooling Tower - Cell 7	COOL4_C7	436,329	4,743,305	0.659	16.8	300	7.86	7.620
Cooling Tower for Units 1,2, and 3 - Cell 1	COOL1_C1	436,804	4,742,811	0.179	19.8	300	7.86	10.668
Cooling Tower for Units 1,2, and 3 - Cell 2	COOL1_C2	436,811	4,742,818	0.179	19.8	300	7.86	10.668
Cooling Tower for Units 1,2, and 3 - Cell 3	COOL1_C3	436,820	4,742,826	0.179	19.8	300	7.86	10.668

Table 4-4. PM_{10} Emission Inventory for the Dave Johnston WAAQS Analysis (Continued, Page 2 of 3)

Source	Source Code	UTM Location Easting	UTM Location Northing	Emission Rate (g/s)	Stack Height meters	Stack Temperature K	Stack Velocity m/s	Stack Diameter meters
Cooling Tower for Units 1,2, and 3 - Cell 4	COOL1_C4	436,830	4,742,836	0.179	19.8	300	7.86	10.668
Cooling Tower for Units 1,2, and 3 - Cell 5	COOL1_C5	436,839	4,742,845	0.179	19.8	300	7.86	10.668
Cooling Tower for Units 1,2, and 3 - Cell 6	COOL1_C6	436,848	4,742,852	0.179	19.8	300	7.83	10.668
Ash Dumping at Landfill (Area Source)	ASH_DUMP	437,393	4,743,815	0.0038	3.0	20	20.00	0.000
Fugitives from Ash Landfill (Area Source)	ASH_LAND	437,678	4,743,635	0.8935	6.1	518	106.68	-14.590
Fly Ash Truck Loading	FLY_ASH	436,532	4,742,969	0.00384	7.6	33	12.19	47.380
Coal Pile No. 3 - Push Out (Area Source)	C_PILE3P	436,416	4,743,208	0.321	6.1	90	170.00	42.590
Ready Coal Pile No. 1 (Area Source)	C_PILE1	436,692	4,742,936	0.045	3.0	45	45.00	-24.610
Long-term Coal Storage Pile (Area Source)	C_PILELT	436,542	4,743,353	0.408	6.1	240	145.00	57.870
Ready Coal Pile No. 3 (Area Source)	C_PILE3	436,532	4,743,100	0.179	9.8	135	66.60	-46.320
Ready Coal Pile No. 2 (Area Source)	C_PILE2	436,581	4,743,019	0.162	7.9	140	65.00	-26.600
Coal Pile No. 1 Push Out (Area Source)	C_PILE1P	436,744	4,742,944	0.187	6.1	60	140.00	-32.260
Dead Storage Coal Pile (Area Source)	C_PILEDS	436,685	4,743,161	0.307	6.1	222	118.00	58.800
Ash Haul Road (Start of Line Source)	ASH_HAUL	436,537	4,742,976	0.0573				
Ash Haul Road (Finish of Line Source)	ASH_HAUL	437,409	4,743,862	-				
Sinclair Oil Company - Casper Refinery								
No. 4 Boiler	SRC1	398,624	4,745,609	1.39	17.7	458	6.19	1.369
No. 5 Boiler	SRC2	398,627	4,745,619	1.94	18.0	544	7.40	1.676
No. 6 Boiler	SRC3	398,629	4,745,604	0.018	41.1	527	2.49	2.134
No. 7 Boiler	SRC4	398,624	4,745,600	2.95	17.7	539	26.88	0.914
Asphalt Heater	SRC5	398,743	4,745,629	0.003	10.4	811	9.62	0.518
B-2 No. 3 Crude Heater	SRC8	398,537	4,745,598	0.011	18.3	755	13.22	0.914
B-1 No. 4 Crude Heater	SRC9	398,495	4,745,588	1.92	41.4	550	12.90	1.372
B-3 No. 4 Crude Heater	SRC7	398,528	4,745,605	1.00	41.1	575	13.80	0.914
No. 4 Vacuum Heater	SRC6	398,543	4,745,598	0.013	18.3	783	8.12	0.914
B-1 No. 5 Crude Heater	SRC11	398,312	4,745,659	1.705	18.3	811	13.40	1.524
B-1 Pretreater Heater	SRC19	398,252	4,745,662	0.011	18.4	800	7.88	1.219
B-20-1 Reformer No. 1 Heater	SRC16	398,271	4,745,663	0.014	18.3	855	17.97	0.914
B-20-2 Reformer No. 2 Heater	SRC15	398,277	4,745,662	0.028	18.5	783	38.59	0.914

Table 4-4. PM_{10} Emission Inventory for the Dave Johnston WAAQS Analysis (Continued, Page 3 of 3)

Source	Source Code	UTM Location Easting	UTM Location Northing	Emission Rate (g/s)	Stack Height meters	Stack Temperature K	Stack Velocity m/s	Stack Diameter meters
B-20-2 Reformer No. 3 Heater	SRC14	398,283	4,745,662	0.011	18.3	783	20.39	0.762
B-20-3 Stabilizer Reboiler	SRC13	398,288	4,745,663	0.005	13.3	783	9.00	0.762
B-2 Splitter Reboiler	SRC17	398,265	4,745,662	0.008	18.3	816	9.13	0.914
B-201 CHD Heater	SRC18	398,246	4,745,662	0.016	18.3	728	4.80	1.219
F-202 FCC Feed Heater	SRC20	398,235	4,745,740	0.024	24.4	755	14.80	1.271
Fluid Catalyt. Cracking (FCC) Unit	SRC25	398,260	4,745,748	0.955	45.7	668	25.89	1.311
Truck Dock Flare	SRC26	398,487	4,745,471	0.001	10.7	700	8.33	2.438
Refinery Flare	SRC24	398,260	4,745,849	0.006	61.0	1273	20.19	0.945
Storage Tank Flare	SRC33	398,560	4,746,020	0.001	13.7	1033	0.06	2.438
TGTU Sulfur Recov. Unit	SRC23	398,387	4,745,685	0.004	30.5	348	5.33	0.762
Reformer Heaters 1, 2, and 3	SRC74	398,390	4,745,600	0.08	24.4	644	17.77	1.219

Sources: WDEQ, 2006.
ECT, 2007.

5.0 MODEL RESULTS

5.1 PSD SIGNIFICANCE LEVELS

The refined modeling runs were conducted for CO to assess the impacts from the Dave Johnston (DJ) modifications. ISC-PRIME model results for each year of meteorology evaluated (1998, and 2000-2002) are summarized in Table 5-1 (8-hour CO impacts) and Table 5-2 (1-hour CO impacts). Highest impacts in these tables are highlighted in bold-face type. Impacts for the year 2000 were run a second time using a 100-meter space grid surrounding the maximum impact. As shown in Table 5-1, the predicted maximum impacts are below the PSD significant impact levels for both 8- and 1-hour averaging periods. Therefore, no further analysis for CO is required. The concentration isopleths and maximum impacts for the 8- and 1-hour averaging periods are shown in Figures 5-1 and 5-2, respectively.

5.2 WAAQS ANALYSIS

An assessment of the project impacts, together with other sources within 50 km, was performed for comparison to the applicable WAAQS. The final emissions inventories for NO_x, SO_2, and PM_{10} are presented in Section 4.8. Allowable emissions were used in the modeling.

Table 5-3 provides the results of the NO_x WAAQS analysis. With background levels added in, all maximum predicted annual NO_2 impacts are well below the WAAQS. The overall maximum impact was determined using a 100-m spaced grid. The concentration isopleths, and maximum impact location are shown in Figure 5-3. As shown in Figure 5-3, the majority of the maximum impact is caused by Kinder Morgan's Douglas Gas Plant.

Tables 5-4, 5-5, and 5-6 summarize the results of the SO_2 WAAQS analyses. With background levels added in, all maximum predicted annual, 24-hour, and 3-hour SO_2 impacts are below the respective standards. For 24-hour and 3-hour averaging periods, highest, second highest impacts were used. The overall maximum impacts were determined using a 100-meter spaced grid. The concentration isopleths and maximum impact locations for the annual, 24-hour, and 3-hour averaging periods are shown in Figures 5-4 through 5-6, respectively.

Tables 5-7 and 5-8 summarize the results of the PM_{10} WAAQS analyses. With background levels added in, all maximum predicted annual and 24-hour PM_{10} impacts are below the respective standards. For 24-hour averaging periods, highest, second highest impacts and background concentrations were used. The maximum overall impacts were determined using a 100-meter spaced grid. The concentration isopleths and maximum impacts location for the annual and 24-hour averaging periods are shown in Figures 5-7 and 5-8, respectively.

Table 5-9 provides the results of the lead WAAQS analysis. With background levels added in, all maximum predicted annual lead impacts are well below the WAAQS. The overall maximum impact was determined using a 100-meter spaced grid. The concentration isopleth and maximum impact location are shown in Figure 5-9.

Table 5-10 provides the results of the fluoride WAAQS analysis. Background levels could not be determined, therefore the maximum impacts from Dave Johnston were compared to the 12-hour, 24-hour, 30-day, and annual average WAAQS. The overall maximum impact was determined using a 100-meter spaced grid. The concentration isopleth and maximum impact locations for the 30-day, 24-hour, and 12-hour averaging periods are shown in Figures 5-10 through 5-12, respectively.

Table 5-1. ISC-PRIME Model Results—Maximum 8-Hour Average CO Impacts for Dave Johnston PSD Significance Comparison

Maximum 8-Hour Impacts	1998	**2000**	2001	2002
ISC-PRIME Impact (µg/m^3)	91.0	**121.9**	105.4	96.8
PSD Significant Impact (µg/m^3)	500	**500**	500	500
Exceed PSD Significant Impact (Yes/No)	No	**No**	No	No
Percent of PSD Significant Impact (%)	18.2	**24.4**	21.1	19.4
PSD *de minimis* Ambient Impact Threshold (µg/m^3)	575.0	**575.0**	575.0	575.0
Exceed PSD *de minimis* Ambient Impact (Yes/No)	No	**No**	No	No
Percent of PSD *de minimis* Ambient Impact (%)	15.8	**21.2**	18.3	16.8
Receptor UTM Easting (meters)	434,595	**442,770**	433,595	435,595
Receptor UTM Northing (meters)	4,736,155	**4,733,981**	4,735,155	4,736,155
Distance From Grid Origin (meters)	7,105	**10,984**	8,366	6,905
Direction From Grid Origin (Vector ^{o})	196	**145**	200	188
Date of Maximum Impact	06/21/98	**07/15/00**	10/28/01	07/05/02
Julian Date of Maximum Impact	172	**197**	301	186
Ending Hour of Maximum Impact	0800	**0800**	2400	0800

Note: Highest impact year highlighted in **boldface** type.

Source: ECT, 2007.

Table 5-2. ISC-PRIME Model Results—Maximum 1-Hour Average CO Impacts for the Dave Johnston PSD Significance Comparison

Maximum 1-Hour Impacts	1998	**2000**	2001	2002
ISC-PRIME Impact (µg/m^3)	511.0	**647.7**	499.5	534.8
PSD Significant Impact (µg/m^3)	2,000	**2,000**	2,000	2,000
Exceed PSD Significant Impact (Yes/No)	No	**No**	No	No
Percent of PSD Significant Impact (%)	25.6	**32.4**	25.0	26.7
Receptor UTM Easting (meters)	436,595	**435,494**	435,595	435,595
Receptor UTM Northing (meters)	4,735,155	**4,736,640**	4,736,155	4,737,155
Distance From Grid Origin (meters)	7,846	**6,439**	6,905	5,915
Direction From Grid Origin (Vector ^{o})	179	**189**	188	189
Date of Maximum Impact	07/28/98	**10/05/00**	09/04/01	02/11/02
Julian Date of Maximum Impact	209	**279**	247	42
Ending Hour of Maximum Impact	0100	**0100**	2300	2300

Note: Highest impact year highlighted in **boldface** type.

Source: ECT, 2007.

Table 5-3. ISC-PRIME Model Results—Annual Average NO_2 Impacts for Dave Johnston WAAQS Analysis

Maximum Annual Impacts	1998	**2000**	2001	2002
ISC-PRIME NO_x Impact ($\mu g/m^3$)	67.6	**72.9**	70.9	67.8
Tier 1 Impact ($\mu g/m^3$)*	67.6	**72.9**	70.9	67.8
Tier 2 Impact ($\mu g/m^3$)†	50.7	**54.7**	53.2	50.9
Background ($\mu g/m^3$)	9.40	**9.40**	9.40	9.40
Total WAAQS Impact ($\mu g/m^3$)	60.1	**64.1**	62.6	60.3
Maximum NO_2 Impact for DJ ($\mu g/m^3$)	5.46	**5.63**	5.69	5.55
WAAQS ($\mu g/m^3$)	100	**100**	100	100
Exceed WAAQS (Yes/No)	No	**No**	No	No
Percent of WAAQS (%)	60.1	**64.1**	62.6	60.3
WAAQS Impact Receptor UTM Easting (meters)	473,036	**473,036**	473,036	473,036
WAAQS Receptor UTM Northing (meters)	4,737,279	**4,737,279**	4,737,279	4,737,279
Distance From Plant Bench Mark (meters)	36,981	**36,981**	36,981	36,981
Direction From Plant Bench Mark (Vector ^{o})	99	**99**	99	99

Note: Highest impact year highlighted in **boldface** type.

*Unadjusted ISC-PRIME impact (assumed complete conversion of NO_x to NO_2; i.e., NO_2/NO_x ratio of 1.0).
†Tier 1 impact times USEPA national default NO_2/NO_x ratio of 0.75.

Source: ECT, 2007.

Table 5-4. ISC-PRIME Model Results—Annual Average SO_2 Impacts for the Dave Johnston WAAQS Analysis

Maximum Annual Impacts	1998	**2000**	2001	2002
ISC-PRIME Impact (µg/m^3)	22.2	**37.5**	23.5	23.1
Background (µg/m^3)	10.5	**10.5**	10.5	10.5
Total WAAQS Impact (µg/m^3)	32.7	**48.0**	34.0	33.6
Maximum Impact for DJ (µg/m^3)	12.7	**13.0**	12.7	13.0
WAAQS (µg/m3)	60	**60**	60	60
Exceed WAAQS (Yes/No)	No	**No**	No	No
Percent of WAAQS (%)	54.5	**80.0**	56.6	56.0
Percent of Impact from Dave Johnston (%)	65.0	**28.3**	58.8	60.7
WAAQS Receptor UTM Easting (meters)	403,903	**399,938**	403,903	403,903
WAAQS Receptor UTM Northing (meters)	4,743,813	**4,744,901**	4,743,813	4,743,813
Distance From Plant Bench Mark (meters)	32,607	**36,611**	32,607	32,607
Direction From Plant Bench Mark (Vector ^{o})	271	**273**	271	271

Note: Highest impact year highlighted in **boldface** type.

Source: ECT, 2007.

Table 5-5. ISC-PRIME Model Results—Highest, Second Highest 24-Hour Average SO_2 Impacts for the Dave Johnston WAAQS Analysis

HSH 24-Hour Average Impacts	1998	**2000**	2001	2002
ISC-PRIME HSH Impact (µg/m^3)	138.2	**179.2**	140.0	109.4
Background (µg/m^3)	68.1	**68.1**	68.1	68.1
Total WAAQS Impact (µg/m^3)	206.3	**247.3**	208.1	177.5
WAAQS (µg/m3)	260	**260**	260	260
Exceed WAAQS (Yes/No)	No	**No**	No	No
Percent of WAAQS (%)	79.3	**95.1**	80.0	68.3
Percent of Impact from Dave Johnston (%)	99.8	**55.0**	100.0	93.4
WAAQS Receptor UTM Easting (meters)	436,388	**399,938**	436,770	403,903
WAAQS Receptor UTM Northing (meters)	4,742,632	**4,744,901**	4,742,661	4,743,813
Distance From Plant Bench Mark (meters)	385	**36,611**	433	32,607
Direction From Plant Bench Mark (Vector ^{o})	197	**273**	141	271
Date of Maximum HSH Impact	04/19/98	**03/30/00**	04/11/01	02/07/02
Julian Date of Maximum HSH Impact	109	**90**	101	38

Note: Highest impact year highlighted in **boldface** type.

Source: ECT, 2007.

Table 5-6. ISC-PRIME Model Results—Highest, Second Highest 3-Hour Average SO_2 Impacts for the Dave Johnston WAAQS Analysis

HSH 3-Hour Average Impacts	1998	**2000**	2001	2002
ISC-PRIME HSH Impact (µg/m^3)	627.3	**789.5**	725.4	535.6
Background (µg/m^3)	125.8	**125.8**	125.8	125.8
Total WAAQS Impact (µg/m^3)	753.1	**915.3**	851.2	661.4
Maximum HSH Impact for DJ (µg/m^3)	584.1	**735.2**	552.2	584.2
WAAQS (µg/m3)	1,300	**1,300**	1,300	1,300
Exceed WAAQS (Yes/No)	No	**No**	No	No
Percent of WAAQS (%)	57.9	**70.4**	65.5	50.9
WAAQS Receptor UTM Easting (meters)	437,017	**428,625**	436,647	436,688
WAAQS Receptor UTM Northing (meters)	4,742,609	**4,737,093**	4,742,618	4,742,632
Distance From Plant Bench Mark (meters)	648	**9,844**	409	413
Direction From Plant Bench Mark (Vector ^{o})	127	**233**	159	153
Date of Maximum HSH Impact	06/18/98	**12/01/00**	04/11/01	08/14/02
Julian Date of Maximum HSH Impact	169	**336**	101	226
Ending Hour of Maximum Impact	1800	**2400**	0600	2400

Note: Highest impact year highlighted in **boldface** type.

Source: ECT, 2007.

Table 5-7. ISC-PRIME Model Results—Annual Average PM_{10} Impacts for the Dave Johnston WAAQS Analysis

Maximum Annual Impacts	1998	**2000**	2001	2002
ISC-PRIME Impact (µg/m^3)	9.8	**10.8**	10.4	10.1
Background (µg/m^3)	17.0	**17.0**	17.0	17.0
Total WAAQS Impact (µg/m^3)	26.8	**27.8**	27.4	27.1
Maximum Impact for DJ (µg/m^3)	11.9	**13.3**	13.1	11.8
WAAQS (µg/m3)	50	**50**	50	50
Exceed WAAQS (Yes/No)	No	**No**	No	No
Percent of WAAQS (%)	53.5	**55.6**	54.8	54.2
WAAQS Receptor UTM Easting (meters)	439,355	**439,355**	439,355	439,354
WAAQS Receptor UTM Northing (meters)	4,743,414	**4,743,414**	4,743,414	4,743,365
Distance From Plant Bench Mark (meters)	2,885	**2,885**	2,885	2,877
Direction From Plant Bench Mark (Vector ^{o})	82	**82**	82	83

Note: Highest impact year highlighted in **boldface** type.

Source: ECT, 2007.

Table 5-8. ISC-PRIME Model Results—Highest, Second Highest 24-Hour Average PM_{10} Impacts for the Dave Johnston WAAQS Analysis

HSH 24-Hour Average Impacts	1998	2000	**2001**	2002
ISC-PRIME HSH Impact (μg/m^3)	64.0	56.7	**65.6**	50.5
Background (μg/m^3)	47.0	47.0	**47.0**	47.0
Total WAAQS Impact (μg/m^3)	111.0	103.7	**112.6**	97.5
Maximum HSH Impact for DJ (μg/m^3)	61.4	58.1	**51.1**	45.9
WAAQS (μg/m3)	150	150	**150**	150
Exceed WAAQS (Yes/No)	No	No	**No**	No
Percent of WAAQS (%)	74.0	69.1	**75.1**	65.0
WAAQS Receptor UTM Easting (meters)	436,688	436,811	**439,397**	439,354
WAAQS Receptor UTM Northing (meters)	4,742,632	4,742,675	**4,744,598**	4,743,365
Distance From Plant Bench Mark (meters)	413	450	**3,309**	2,877
Direction From Plant Bench Mark (Vector ^{o})	153	136	**61**	83
Date of Maximum HSH Impact	06/14/98	07/15/00	**11/14/01**	10/17/02
Julian Date of Maximum HSH Impact	165	197	**318**	290

Note: Highest impact year highlighted in **boldface** type.

Source: ECT, 2007.

Table 5-9. ISC-PRIME Model Results—Quarterly Average Lead Impacts for the Dave Johnston WAAQS Analysis

Maximum Quarterly Impacts	1998	**2000**	2001	2002
ISC-PRIME Monthly Impact for DJ (µg/m^3)*	0.00022	**0.00027**	0.00023	0.00022
Background (µg/m^3)	0.10	**0.10**	0.10	0.10
Total WAAQS Impact (µg/m^3)	0.10	**0.10**	0.10	0.10
WAAQS (µg/m3)	1.5	**1.5**	1.5	1.5
Exceed WAAQS (Yes/No)	No	**No**	No	No
Percent of WAAQS (%)	6.7	**6.7**	6.7	6.7
WAAQS Receptor UTM Easting (meters)	439,595	**441,194**	427,595	440,095
WAAQS Receptor UTM Northing (meters)	4,741,155	**4,740,778**	4,738,155	4,741,155
Distance From Plant Bench Mark (meters)	3,603	**5,193**	10,138	4,041
Direction From Plant Bench Mark (Vector ^{o})	121	**115**	241	117

*30-day average impact was conservatively used for quarterly average impact.

Note: Highest impact year highlighted in **boldface** type.

Source: ECT, 2007.

Table 5-10. ISC-PRIME Model Results—Fluoride Impacts for the Dave Johnston WAAQS Analysis

Maximum Impacts	1998	2000	2001	2002
ISC-PRIME 12-hour Impact from DJ (µg/m^3)	0.93	0.78	**1.50**	0.68
12-hour WAAQS (µg/m^3)	3.0	3.0	3.0	3.0
ISC-PRIME 24-hour Impact from DJ (µg/m^3)	0.70	0.49	**1.01**	0.37
24-hour WAAQS (µg/m^3)	1.8	1.8	1.8	1.8
ISC-PRIME 7-day Impact from DJ (µg/m^3)*	0.13	**0.16**	0.14	0.13
7-day WAAQS (µg/m^3)	0.5	0.5	0.5	0.5
ISC-PRIME 30-day Impact from DJ (µg/m^3)	0.061	**0.075**	0.067	0.065
30-day WAAQS (µg/m^3)	0.4	0.4	0.4	0.4
ISC-PRIME Annual Impact from DJ (µg/m^3)	**0.042**	0.039	0.040	0.041
Annual WAAQS (µg/m^3)	23,310	23,310	23,310	23,310
Exceed WAAQS (Yes/No)	No	No	No	No

*30-day impact used to estimate 7-day impact using $Cnew = Cold \times (Told/Tnew)^{0.5}$.

Note: Highest impact year highlighted in **boldface** type.

Source: ECT, 2007.

Y:\GDP-07\PRJ\PACCRP_DISPMOD-APPH-TBLS.XLS\510—11/20/2007

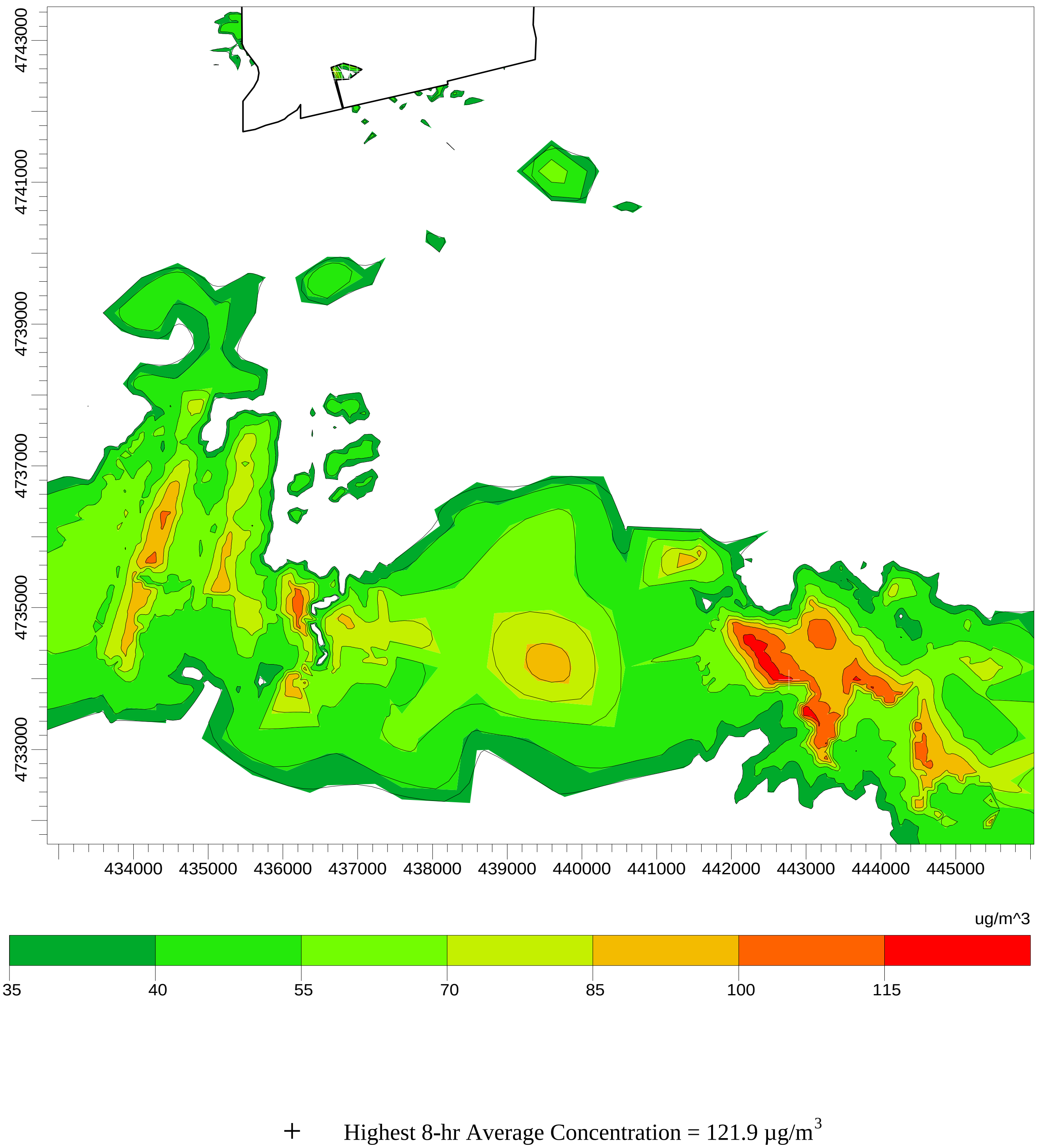
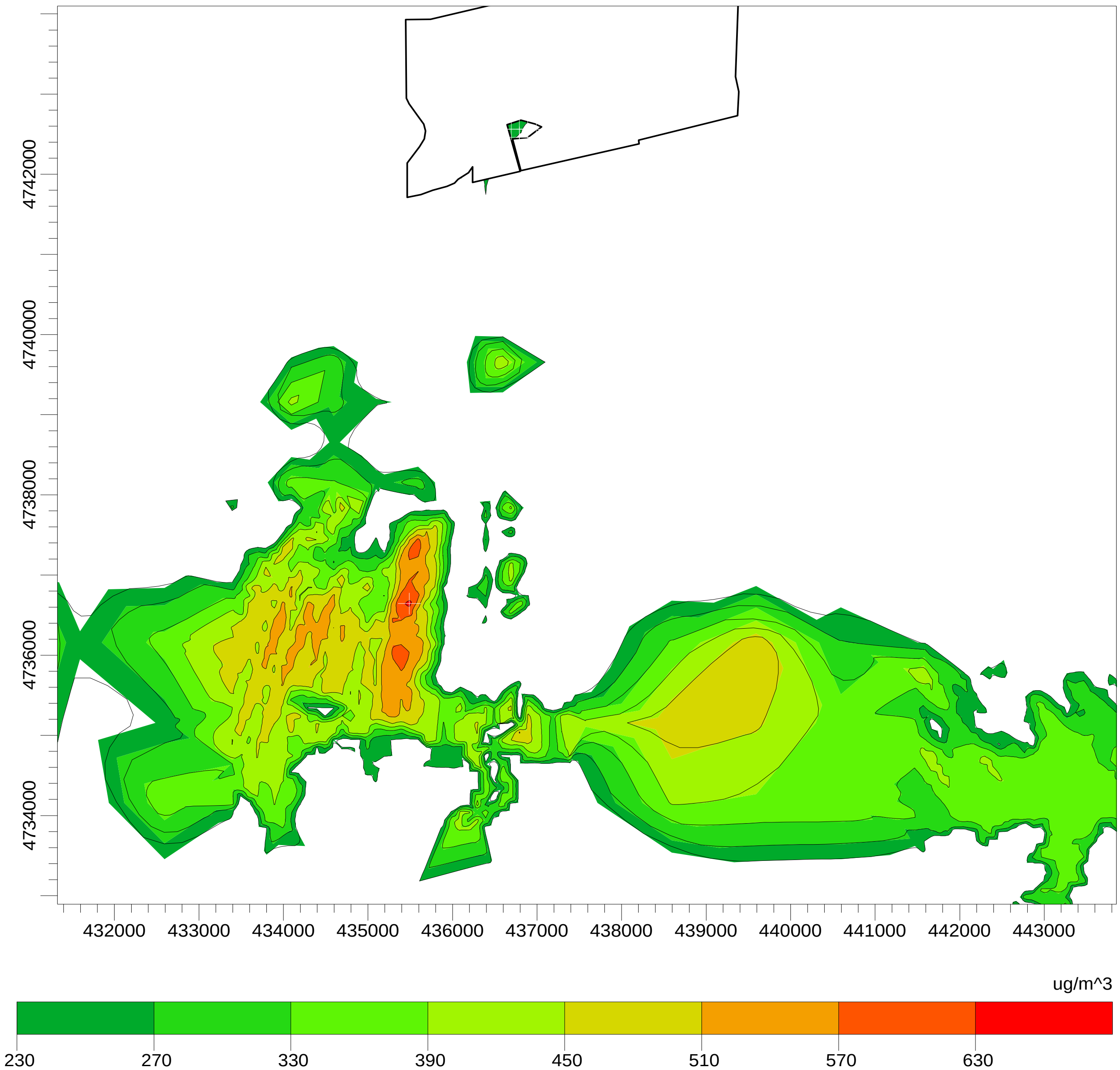


FIGURE 5-1.

2000 CO IMPACTS—DJ PSD SIGNIFICANCE ANALYSIS
CONCENTRATION ISOPLETH - 8-HR AVERAGE

Source: ECT, 2007.

ECT
Environmental Consulting & Technology, Inc.



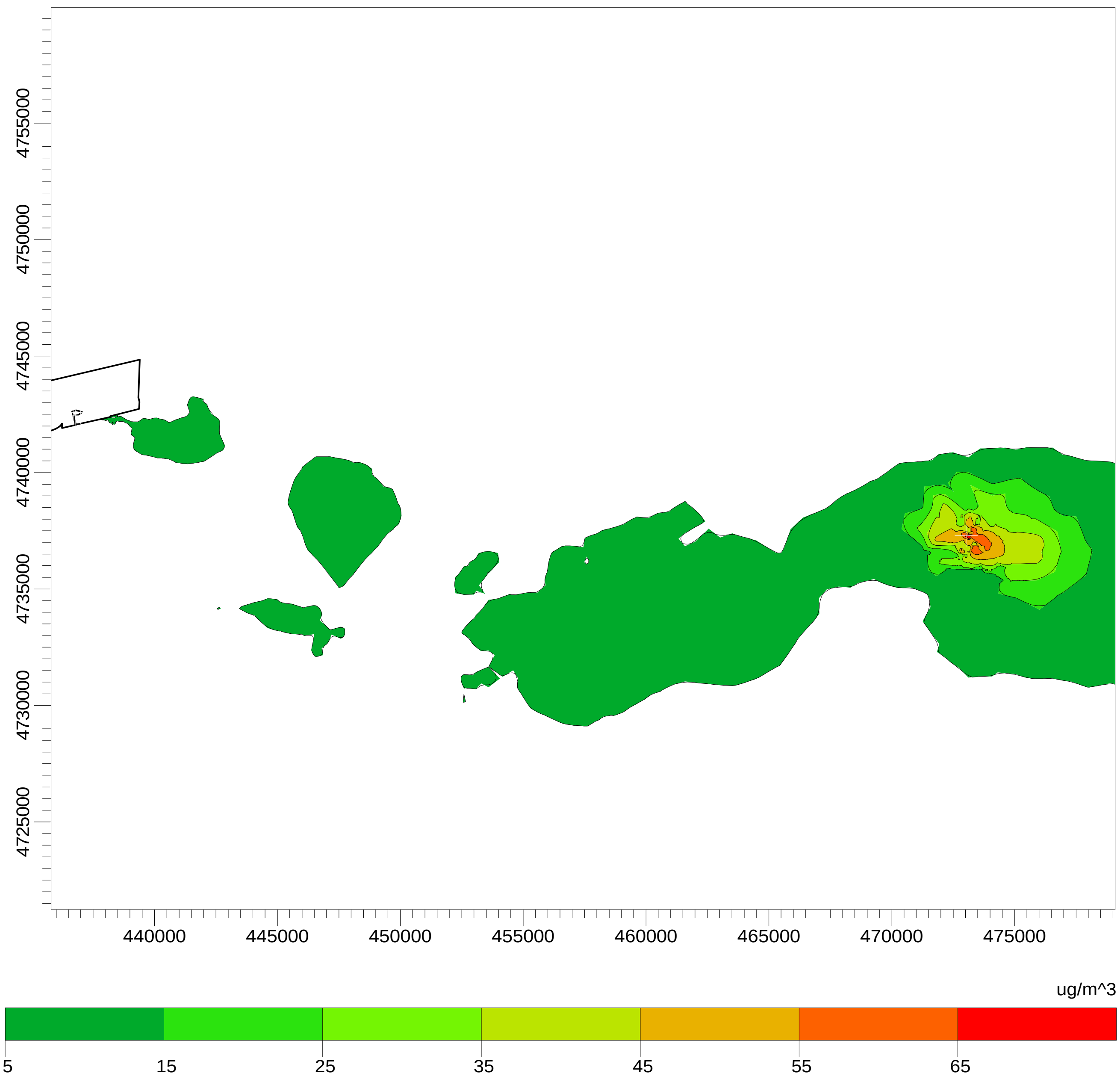
+ Highest 1-hr Average Concentration = 647.7 µg/m[3]

FIGURE 5-2.

2000 CO IMPACTS—DJ PSD SIGNIFICANCE ANALYSIS
CONCENTRATION ISOPLETH - 1-HR AVERAGE

Source: ECT, 2007.

ECT
Environmental Consulting & Technology, Inc.



+ Highest Annual Average NO_x Concentration = 72.9 µg/m^3

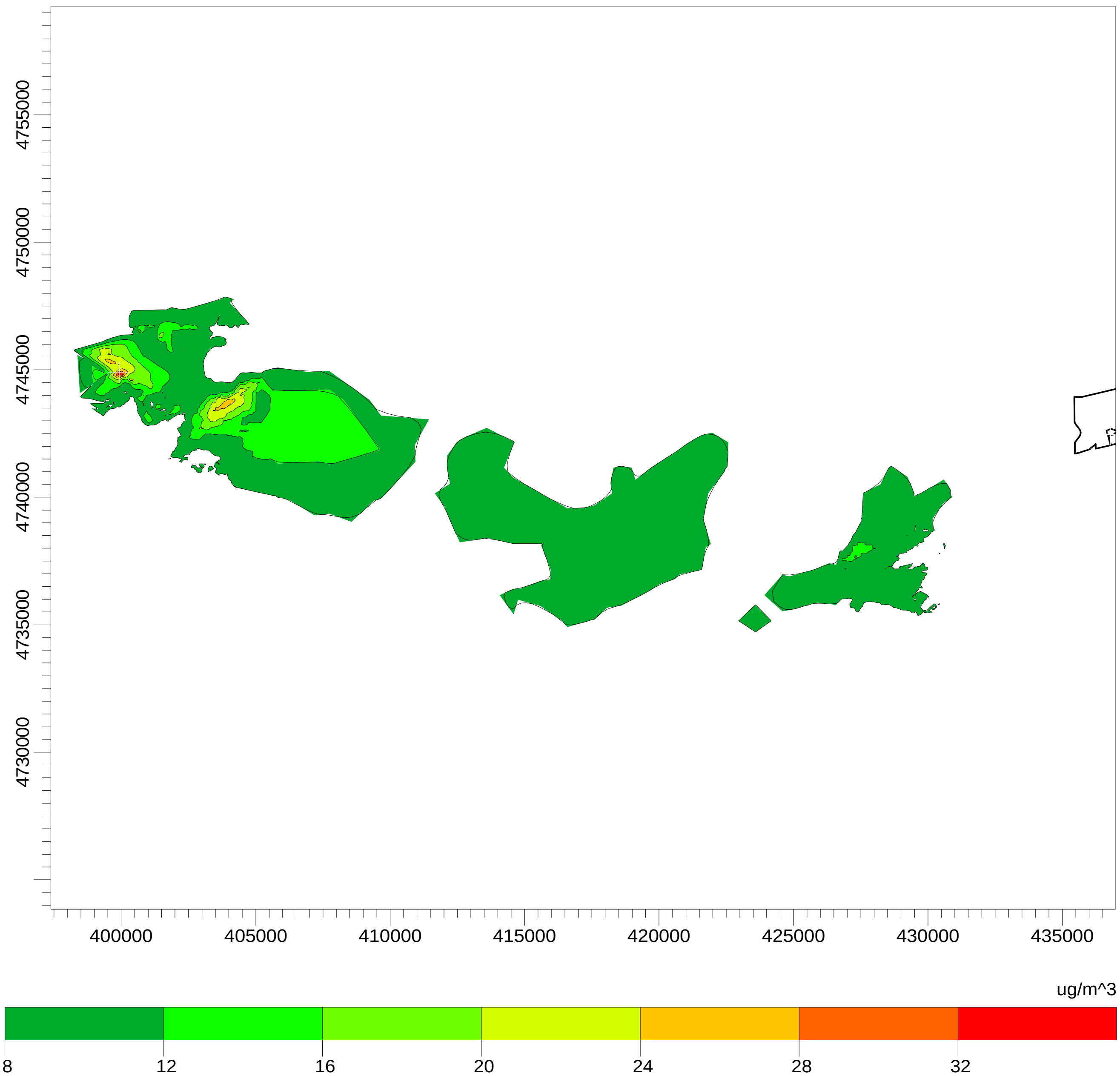
FIGURE 5-3.

2000 NO_x IMPACTS—DJ WAAQS ANALYSIS

CONCENTRATION ISOPLETH - ANNUAL AVERAGE

Source: ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

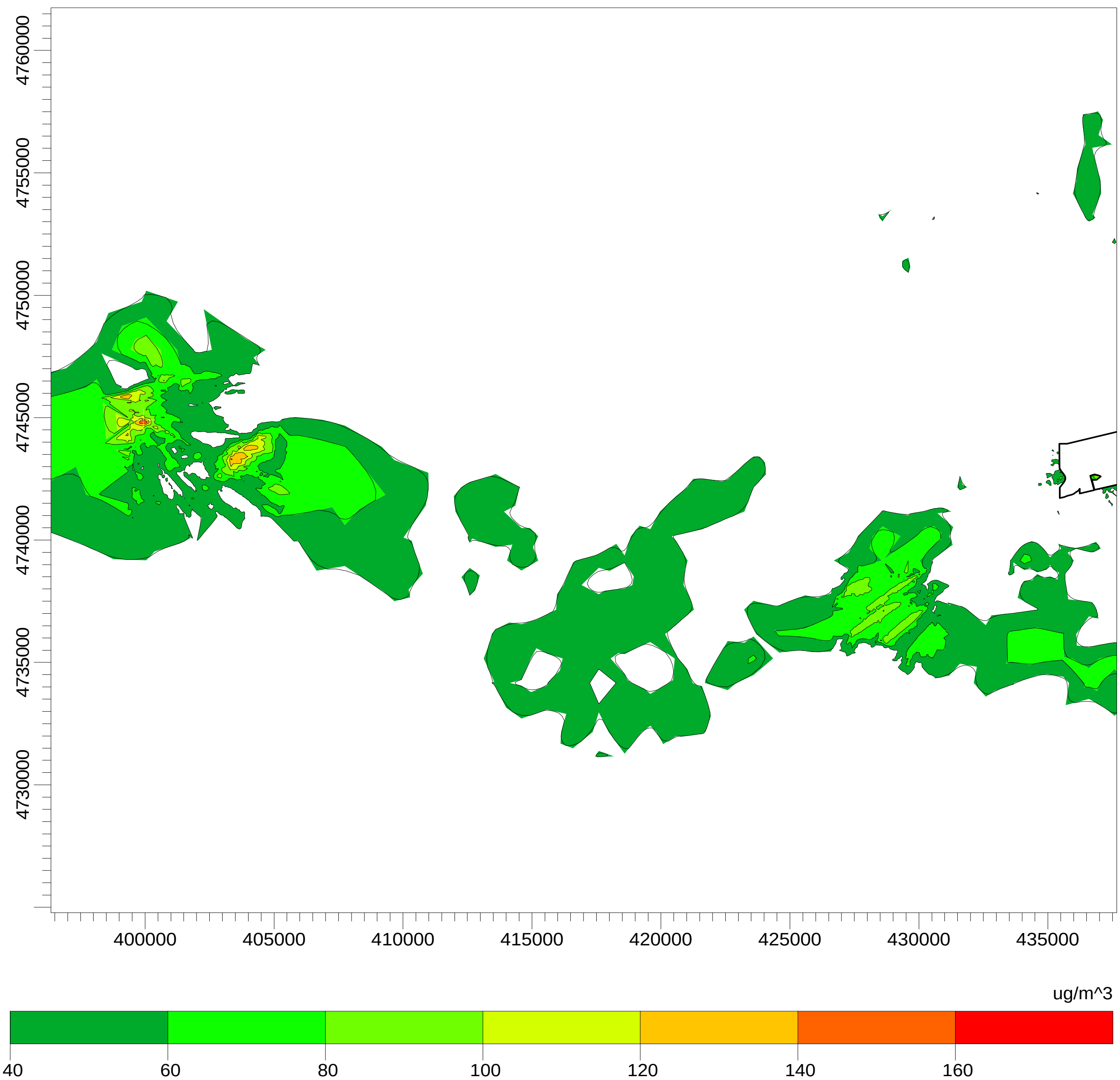


+ Highest Annual Average Concentration = 37.5 μg/m^3

FIGURE 5-4.

2000 SO_2 IMPACTS—DJ WAAQS ANALYSIS
CONCENTRATION ISOPLETH - ANNUAL AVERAGE
Source: ECT, 2006.

Environmental Consulting & Technology, Inc.



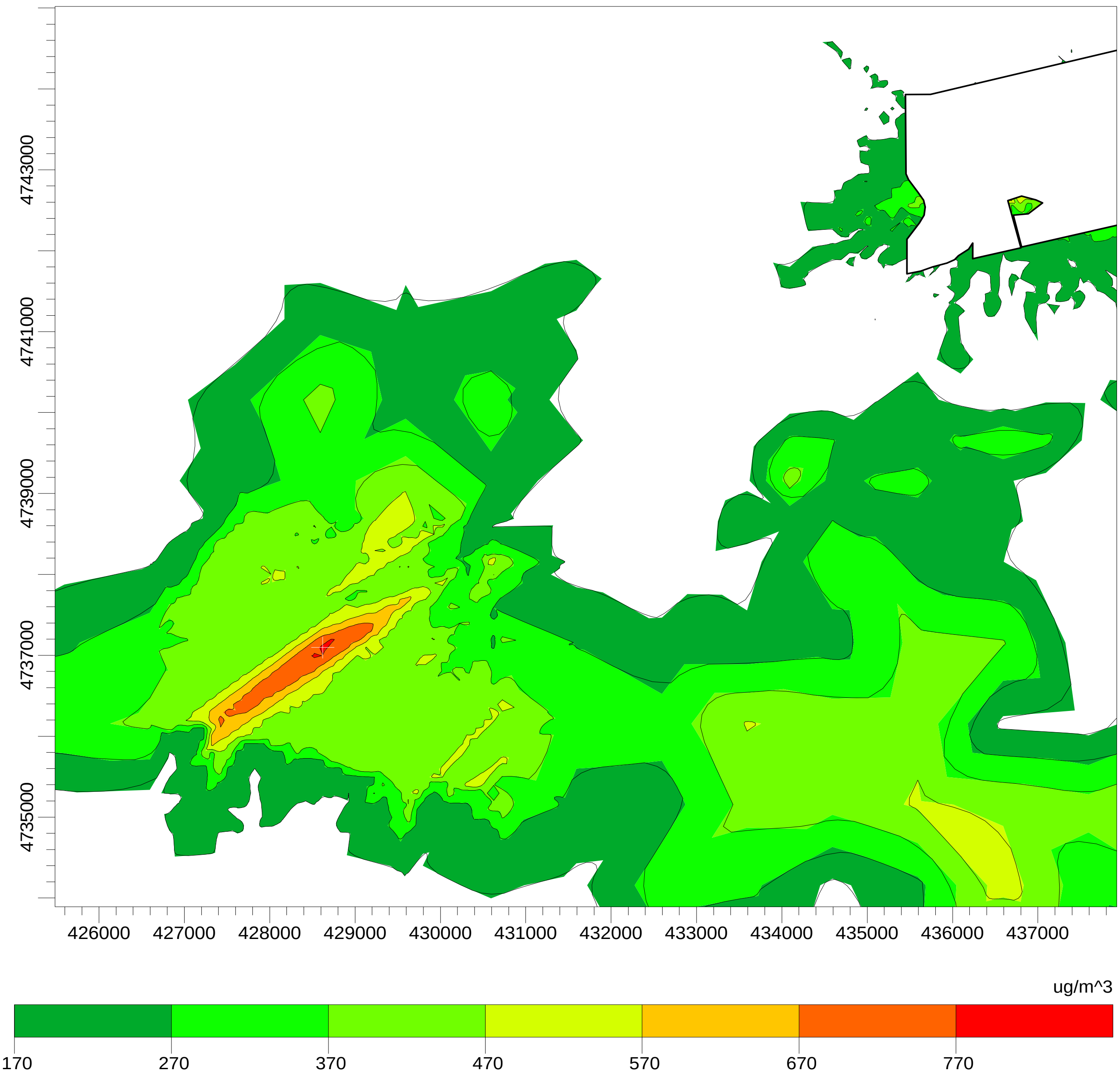
+ HSH 24-Hr Average Concentration = 179.2 µg/m^3

FIGURE 5-5.

2000 SO_2 IMPACTS—DJ WAAQS ANALYSIS
CONCENTRATION ISOPLETH - 24-HR AVERAGE HSH

Source: ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.



+ HSH 3-Hr Average Concentration = 789.5 µg/m^3

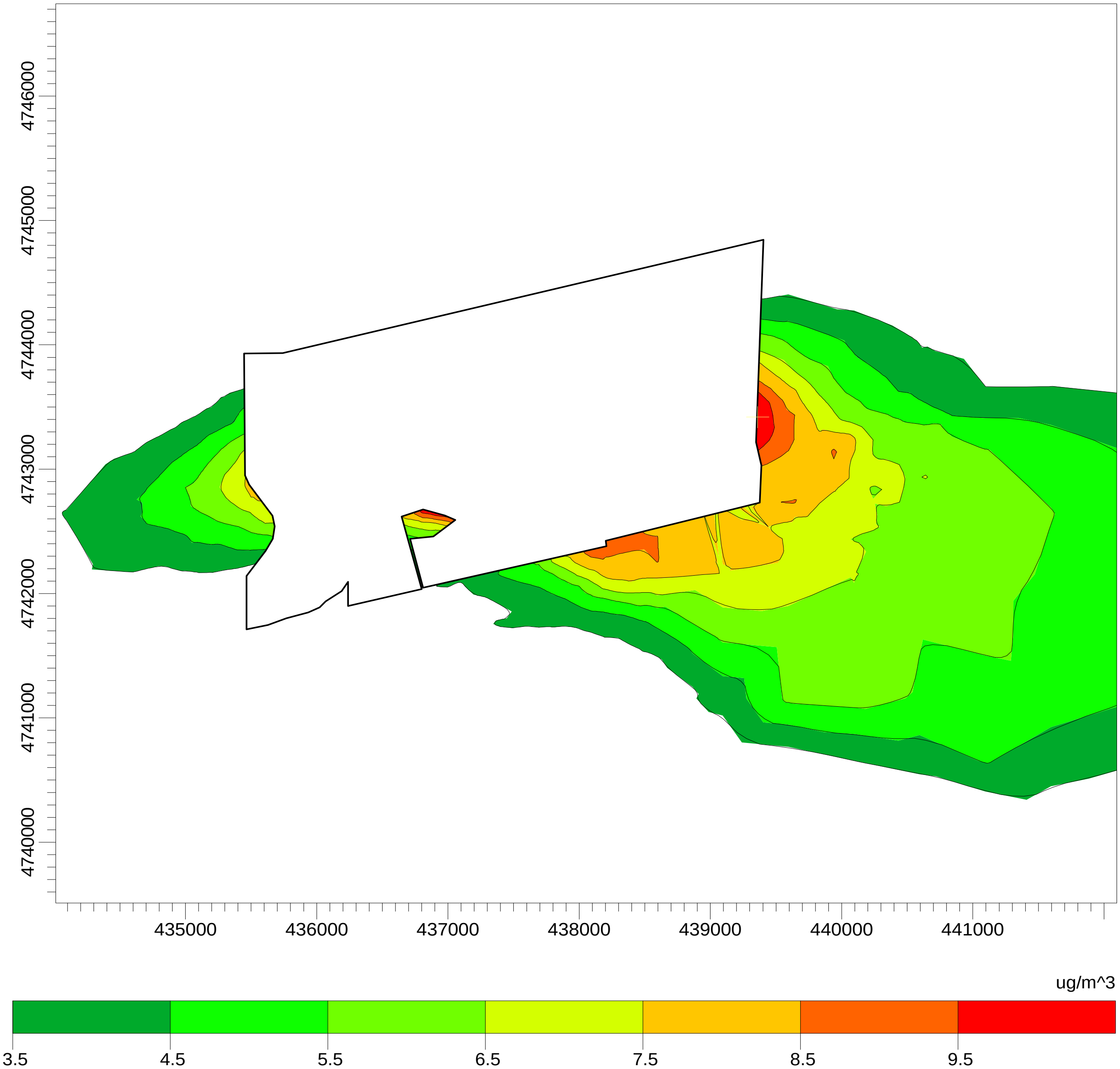
FIGURE 5-6.

2000 SO_2 IMPACTS—DJ WAAQS ANALYSIS

CONCENTRATION ISOPLETH - 3-HR AVERAGE HSH

Source: ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

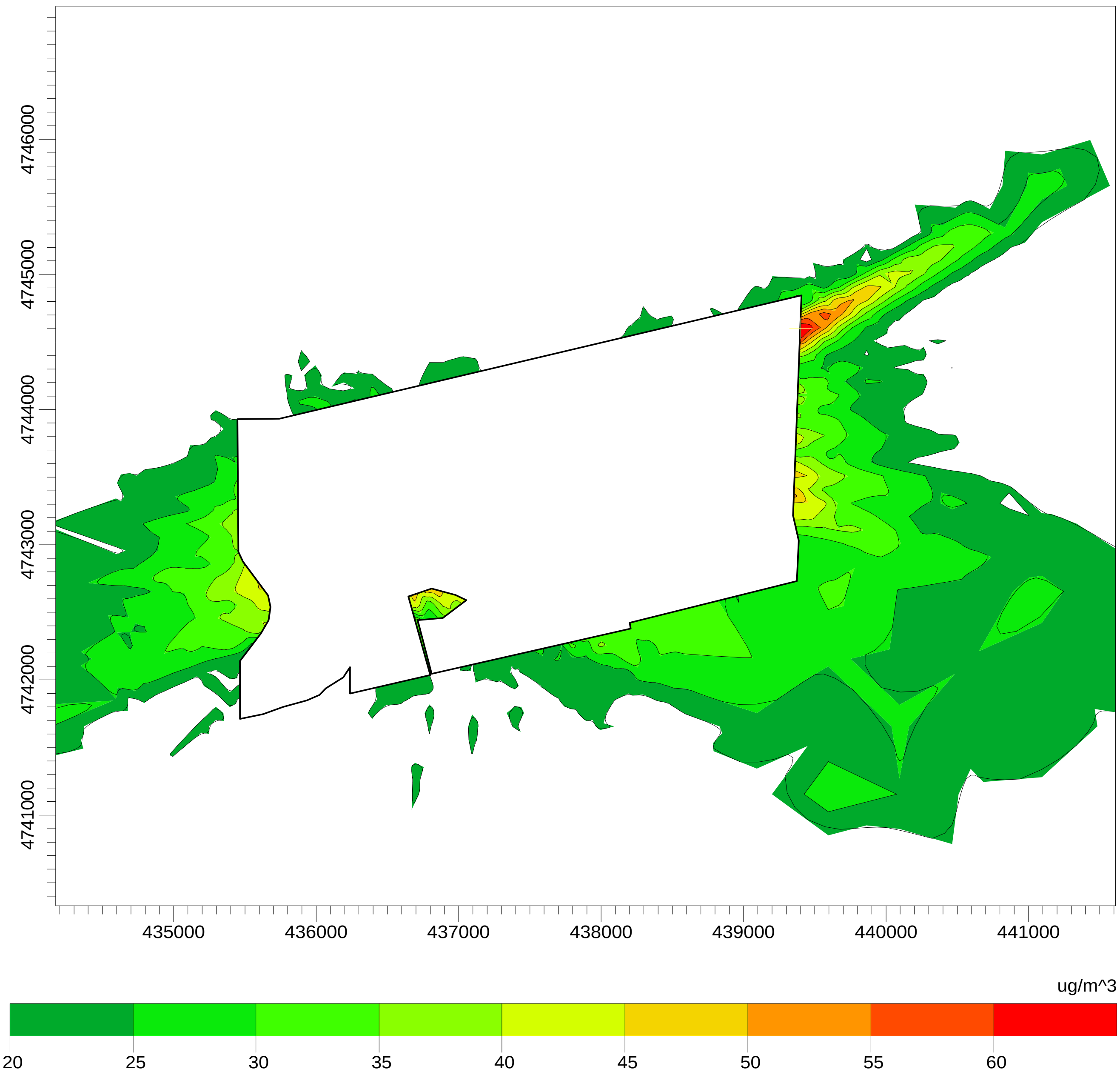


+ Highest Annual Average Concentration = 10.8 µg/m^3

FIGURE 5-7.

2000 PM_{10} IMPACTS— DJ WAAQS ANALYSIS
CONCENTRATION ISOPLETH - ANNUAL AVERAGE
Source: ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

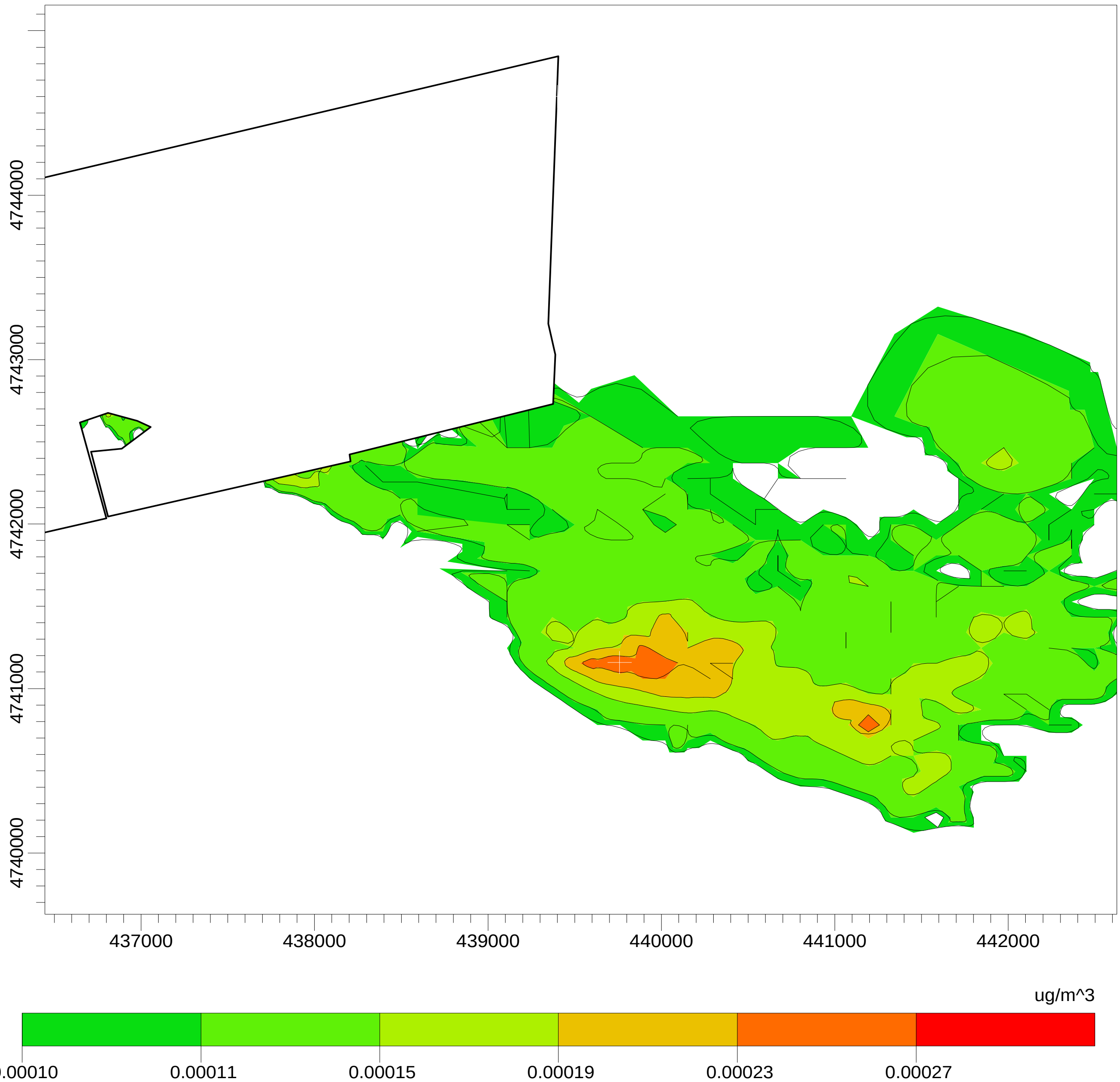


+ HSH 24-Hr Average Concentration = 65.6 μg/m^3

FIGURE 5-8.

2001 PM_{10} IMPACTS—DJ WAAQS ANALYSIS
CONCENTRATION ISOPLETH - 24-HOUR AVERAGE HSH
Source: ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.



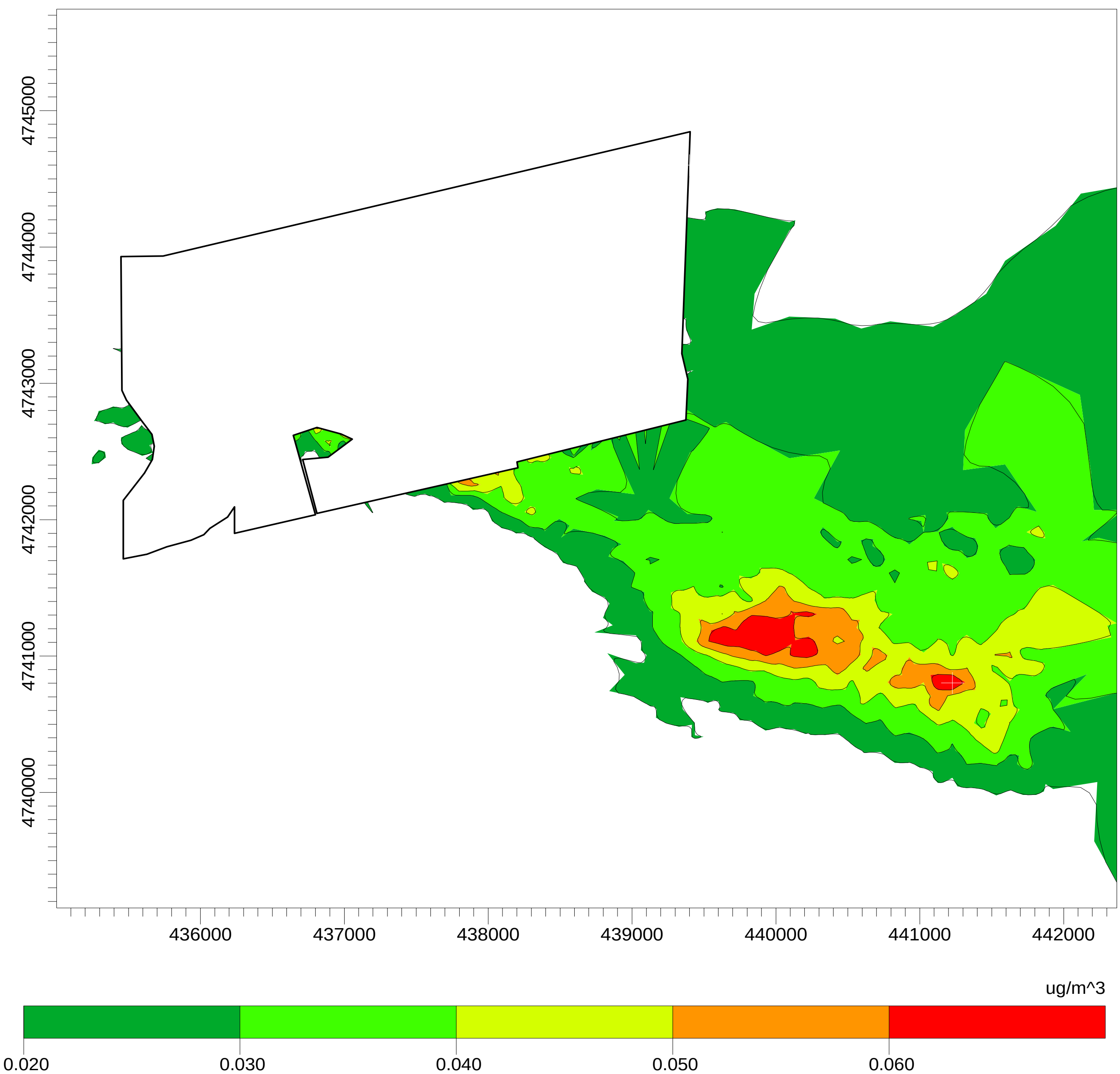
+ Highest Monthly Average Concentration = 0.00027 µg/m^3

FIGURE 5-9.

2000 LEAD IMPACTS—DJ WAAQS ANALYSIS
CONCENTRATION ISOPLETH - MONTHLY AVERAGE

Source: ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.



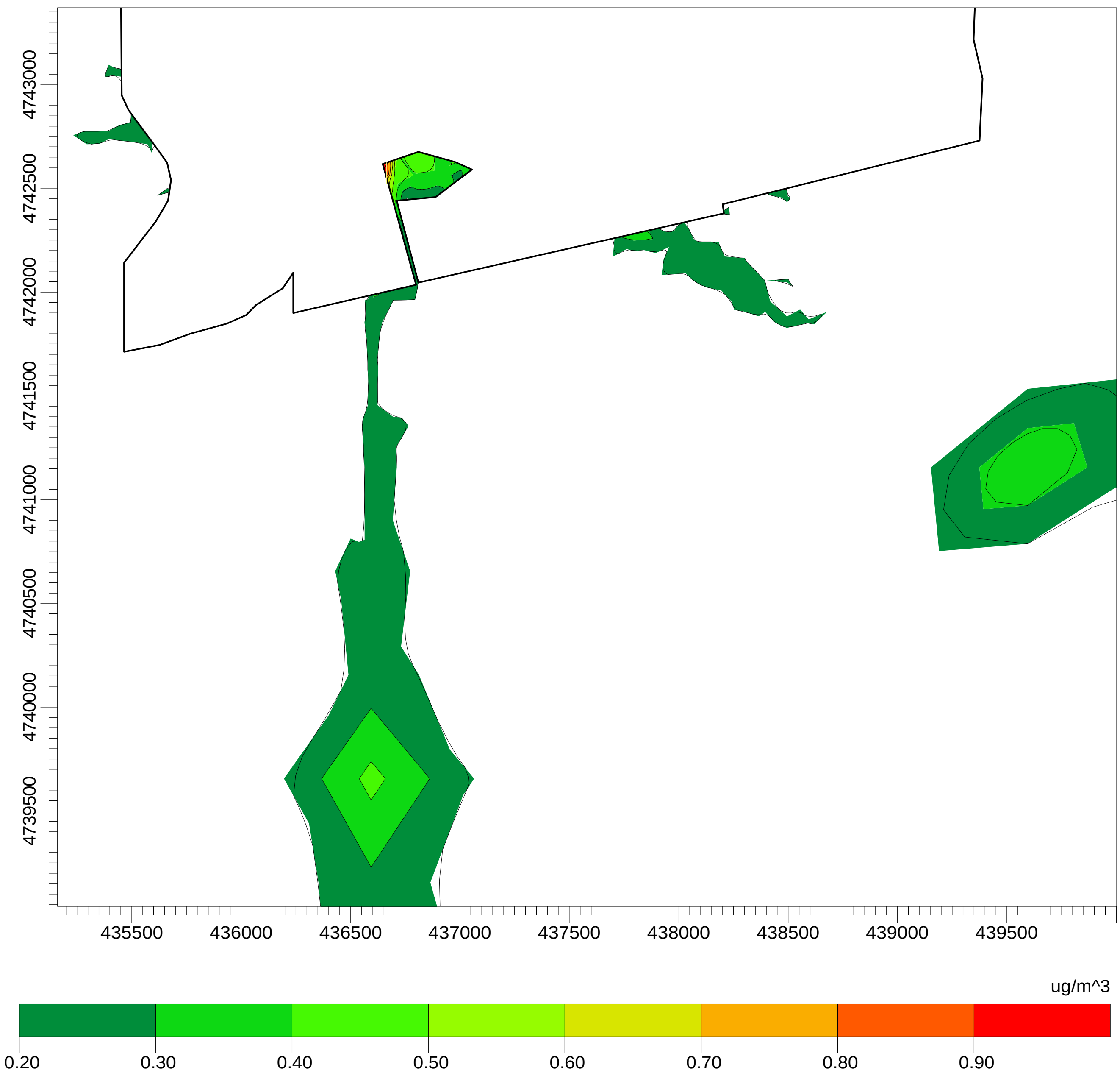
+ Highest 30-day Average Concentration = 0.075 µg/m^3

FIGURE 5-10.

2000 FLOURIDE IMPACTS—DJ WAAQS ANALYSIS
CONCENTRATION ISOPLETH - 30-DAY AVERAGE

Source: ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

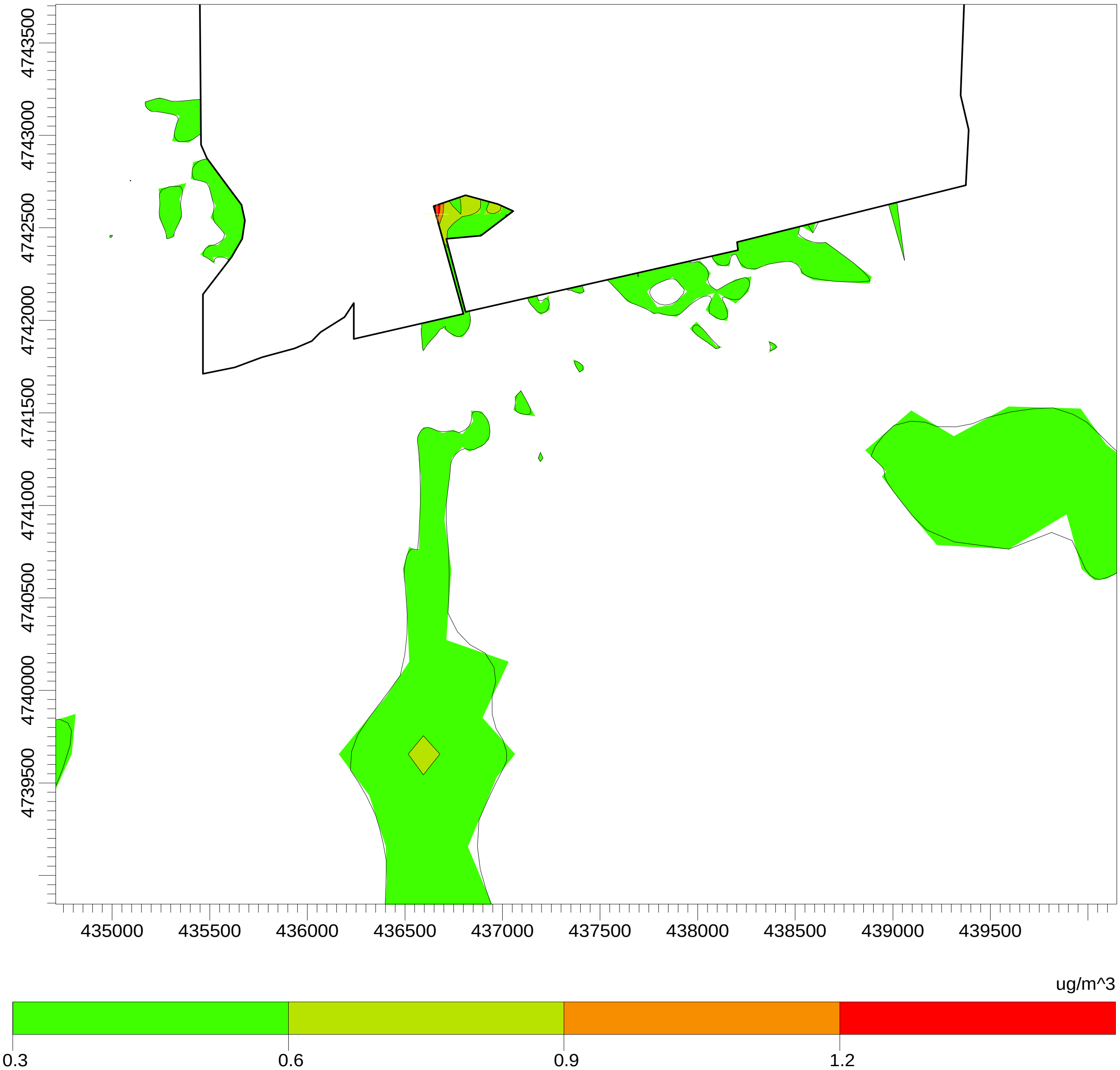


\+ Highest 24-hr Average Concentration = 1.01 $\mu g/m^3$

FIGURE 5-11.

2001 FLOURIDE IMPACTS—DJ WAAQS ANALYSIS
CONCENTRATION ISOPLETH - 24-HR AVERAGE
Source: ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.



+ Highest 12-hr Average Concentration = 1.50 µg/m^3

FIGURE 5-12.

2000 FLOURIDE IMPACTS—DJ WAAQS ANALYSIS
CONCENTRATION ISOPLETH - 12-HR AVERAGE
Source: ECT, 2006.

ECT
Environmental Consulting & Technology, Inc.

6.0 CONCLUSION

The proposed modifications will cause an increase in CO emission at the Dave Johnston Plant. As a result of this emission increase, the ambient air impacts for CO were determined. The modeling results show that the maximum impact will be below the PSD SIL. Therefore, it can be concluded that the proposed modifications will not cause or contribute to significant deterioration of the ambient air quality.

A WAAQS analysis was performed for NO_2, SO_2, CO, lead, and fluorides, including all significant facilities within 50 km of the Dave Johnston Plant. The modeling analysis showed that all ambient air impacts are currently below the WAAQS. Therefore, the proposed modifications will not cause any exceedances of the WAAQS.

REFERENCES

Auer, A.H., Jr. 1978. Correlation of Land Use and Cover with Meteorological Anomalies. Journal of Applied Meteorology, 17:636-643.

Electric Power Research Institute. 1997. Addendum to ISC3 User's Guide, the PRIME Plume Rise and Building Downwash Model. Earth Tech, Inc. Concord, MA.

Holzworth, G.C. 1972. Mixing Heights, Wind Speeds, and Potential for Urban Air Pollution Throughout the Contiguous United States. AP-101. U.S. Environmental Protection Agency. Research Triangle Park, NC.

U.S. Environmental Protection Agency (EPA). 1985. Guidelines for Determination of Good Engineering Practice Stack Height [Technical Support Document for the Stack Height Regulations (Revised)]. EPA-450/4-80-023R. Research Triangle Park, NC.

U.S. Environmental Protection Agency (EPA). 1987. Ambient Monitoring Guidelines for Prevention of Significant Deterioration. EPA-450/4-87-007. Research Triangle Park, NC.

U.S. Environmental Protection Agency (EPA). 1990. New Source Review Workshop Manual (Draft). Research Triangle Park, NC.

U.S. Environmental Protection Agency (EPA). 1992b. User's Manual for the Plume Visibility Model (PLUVUE II) (Revised). EPA-454/B-92-008. Research Triangle Park, NC.

U.S. Environmental Protection Agency (EPA). 1995. User's Guide for the Industrial Source Complex (ISC3) Dispersion Models. EPA-454/B-95-003a. Research Triangle Park, NC.

U.S. Environmental Protection Agency (EPA). 2003. Guideline on Air Quality Models (Revised). Office of Air Quality Planning and Standards. Appendix W of 40 Code of Federal Regulations (CFR) Part 51.

ATTACHMENT A

MODELING FILES

ELECTRONIC FILES FOR DISPERSION MODELING

DAVE JOHNSTON WAAQS ANALYSIS

Air quality analysis electronic files are provided within the following subdirectories on the enclosed CD:

1. Original Meteorological Data Files From 1998 through 2002 (7 Files): **\RAW_MET**

CAS98-02.DAT	Surface data from NCDC for Casper Natrona Airport
MIX98-02.TXT	Mixing height data from NCDC for Casper\Riverton
ONSITExx.DAT	Onsite surface data from Dave Johnston; xx = 98 – 02

2. Processed Meteorological Data Files From 1998, 2000 - 2002 (4 Files): **\PROC_MET**

DJ_xx.MET	Processed met. data; xx = 98, 00 – 02

3. BPIP Files (3 Files): **\BPIP**

DJ_PM.SUP	BPIP-PRIME summary output file for all sources
DJ_PM.BPI	BPIP-PRIME input file for all sources
DJ_PM.PRO	BPIP-PRIME output file for all sources

4. DJ Maximum CO Impacts (10 Files): **\PSD**

xxCOPSD.PIN	ISC-PRIME input files; xx = 98, 00 – 02
xxCOPSD.POU	ISC-PRIME output files; xx = 98, 00 – 02
00COPSDM.PIN	ISC-PRIME input files; max. impact, year 2000
00COPSDM.POU	ISC-PRIME output files; max. impact, year 2000

5. WAAQS Analysis (40 Files): **\WAAQS**

xxNOXNQ.PIN	ISC-PRIME input files for NO_x; xx = 98, 00 – 02
xxNOXNQ.POU	ISC-PRIME output files for NO_x; xx = 98, 00 – 02
xxSO2NQ.PIN	ISC-PRIME input files for SO_2; xx = 98, 00 – 02
xxSO2NQ.POU	ISC-PRIME output files for SO_2; xx = 98, 00 – 02
xxPMNQ.PIN	ISC-PRIME input files for PM_{10}; xx = 98, 00 – 02
xxPMNQ.POU	ISC-PRIME output files for PM_{10}; xx = 98, 00 – 02
xxPBNQ.PIN	ISC-PRIME input files for lead; xx = 98, 00 – 02
xxPBNQ.POU	ISC-PRIME output files for lead; xx = 98, 00 – 02
xxHFNQ.PIN	ISC-PRIME input files for HF; xx = 98, 00 – 02
xxHFNQ.POU	ISC-PRIME output files for HF; xx = 98, 00 – 02

xxyyNQM.PIN	ISC-PRIME max. impact input files; xx = 00 and 01 yy = SO2, PM, PB, and HF
xxyyNQM.POU	ISC-PRIME max. impact output files; xx = 98 and 01 yy = SO2, PM, PB, and HF

6. Plot Files from the PSD and WAAQS Analyses (60 Files): **\PLOT**

xxxxxxxx.PLT	Plot files showing first and second highest impacts for all pollutants.

ATTACHMENT B

FILLED METEOROLOGICAL DATA

Table B-1. Filled Cloud Cover and Ceiling Height Data from Casper Natrona Airport

Year	Month	Day	Hour	Substituted Parameter
1998	1	1	4	CEILING HT
1998	1	1	4	SKY COVER
1998	1	1	7	CEILING HT
1998	1	1	7	SKY COVER
1998	1	1	21	CEILING HT
1998	1	1	21	SKY COVER
1998	1	3	18	CEILING HT
1998	1	3	18	SKY COVER
1998	1	4	2	CEILING HT
1998	1	4	2	SKY COVER
1998	1	4	6	CEILING HT
1998	1	4	6	SKY COVER
1998	1	4	21	CEILING HT
1998	1	4	21	SKY COVER
1998	1	5	1	CEILING HT
1998	1	5	1	SKY COVER
1998	1	6	3	CEILING HT
1998	1	6	3	SKY COVER
1998	1	6	15	CEILING HT
1998	1	6	15	SKY COVER
1998	1	7	23	CEILING HT
1998	1	7	23	SKY COVER
1998	1	8	12	CEILING HT
1998	1	8	12	SKY COVER
1998	1	8	23	CEILING HT
1998	1	8	23	SKY COVER
1998	1	8	24	SKY COVER
1998	1	10	4	CEILING HT
1998	1	10	4	SKY COVER
1998	1	10	18	SKY COVER
1998	1	10	22	CEILING HT
1998	1	10	22	SKY COVER
1998	1	11	11	CEILING HT
1998	1	11	11	SKY COVER
1998	1	11	14	CEILING HT
1998	1	11	14	SKY COVER
1998	1	12	11	CEILING HT
1998	1	12	11	SKY COVER
1998	1	12	20	CEILING HT
1998	1	12	20	SKY COVER
1998	1	12	24	SKY COVER
1998	1	13	6	CEILING HT
1998	1	13	6	SKY COVER
1998	1	13	10	CEILING HT
1998	1	13	10	SKY COVER
1998	1	13	18	CEILING HT
1998	1	13	18	SKY COVER
1998	1	14	14	CEILING HT
1998	1	14	14	SKY COVER
1998	1	15	14	CEILING HT
1998	1	15	14	SKY COVER
1998	1	16	5	CEILING HT
1998	1	16	5	SKY COVER

1998	1	16	18	CEILING HT
1998	1	16	18	SKY COVER
1998	1	16	20	CEILING HT
1998	1	16	20	SKY COVER
1998	1	17	12	SKY COVER
1998	1	17	15	CEILING HT
1998	1	17	15	SKY COVER
1998	1	17	18	CEILING HT
1998	1	17	18	SKY COVER
1998	1	17	22	CEILING HT
1998	1	17	22	SKY COVER
1998	1	19	7	CEILING HT
1998	1	19	7	SKY COVER
1998	1	19	12	CEILING HT
1998	1	19	12	SKY COVER
1998	1	19	14	CEILING HT
1998	1	19	14	SKY COVER
1998	1	19	23	CEILING HT
1998	1	19	23	SKY COVER
1998	1	20	12	SKY COVER
1998	1	20	18	CEILING HT
1998	1	20	18	SKY COVER
1998	1	21	10	CEILING HT
1998	1	21	10	SKY COVER
1998	1	21	18	CEILING HT
1998	1	21	18	SKY COVER
1998	1	22	6	SKY COVER
1998	1	22	24	CEILING HT
1998	1	22	24	SKY COVER
1998	1	23	6	SKY COVER
1998	1	23	22	CEILING HT
1998	1	23	22	SKY COVER
1998	1	24	1	CEILING HT
1998	1	24	1	SKY COVER
1998	1	25	7	CEILING HT
1998	1	25	7	SKY COVER
1998	1	25	12	SKY COVER
1998	1	25	17	CEILING HT
1998	1	25	17	SKY COVER
1998	1	25	18	SKY COVER
1998	1	26	20	CEILING HT
1998	1	26	20	SKY COVER
1998	1	27	10	CEILING HT
1998	1	27	10	SKY COVER
1998	1	27	16	CEILING HT
1998	1	27	16	SKY COVER
1998	1	27	23	CEILING HT
1998	1	27	23	SKY COVER
1998	1	27	24	SKY COVER
1998	1	29	4	CEILING HT
1998	1	29	4	SKY COVER
1998	1	30	2	CEILING HT
1998	1	30	2	SKY COVER
1998	1	30	12	CEILING HT
1998	1	30	12	SKY COVER
1998	1	30	18	CEILING HT
1998	1	30	18	SKY COVER
1998	1	30	24	CEILING HT
1998	1	30	24	SKY COVER

1998	1	31	5	CEILING HT
1998	1	31	5	SKY COVER
1998	1	31	9	CEILING HT
1998	1	31	9	SKY COVER
1998	1	31	11	CEILING HT
1998	1	31	11	SKY COVER
1998	1	31	21	CEILING HT
1998	1	31	21	SKY COVER
1998	2	2	18	SKY COVER
1998	2	3	1	CEILING HT
1998	2	3	1	SKY COVER
1998	2	3	14	CEILING HT
1998	2	3	14	SKY COVER
1998	2	5	18	SKY COVER
1998	2	8	24	SKY COVER
1998	2	12	21	CEILING HT
1998	2	12	21	SKY COVER
1998	2	13	5	CEILING HT
1998	2	13	5	SKY COVER
1998	2	13	24	SKY COVER
1998	2	17	17	CEILING HT
1998	2	17	17	SKY COVER
1998	2	18	24	SKY COVER
1998	2	23	6	SKY COVER
1998	2	25	18	SKY COVER
1998	2	25	24	CEILING HT
1998	2	25	24	SKY COVER
1998	2	26	12	SKY COVER
1998	3	1	24	SKY COVER
1998	3	3	24	SKY COVER
1998	3	5	2	CEILING HT
1998	3	5	2	SKY COVER
1998	3	5	6	SKY COVER
1998	3	5	18	SKY COVER
1998	3	6	18	SKY COVER
1998	3	7	4	CEILING HT
1998	3	7	4	SKY COVER
1998	3	8	9	CEILING HT
1998	3	8	9	SKY COVER
1998	3	17	23	CEILING HT
1998	3	17	23	SKY COVER
1998	3	19	12	SKY COVER
1998	3	20	22	CEILING HT
1998	3	20	22	SKY COVER
1998	3	25	24	SKY COVER
1998	3	26	6	SKY COVER
1998	3	27	24	SKY COVER
1998	3	29	3	CEILING HT
1998	3	29	3	SKY COVER
1998	3	29	5	CEILING HT
1998	3	29	5	SKY COVER
1998	3	29	18	SKY COVER
1998	3	29	24	SKY COVER
1998	3	30	3	CEILING HT
1998	3	30	3	SKY COVER
1998	3	30	10	CEILING HT
1998	3	30	10	SKY COVER
1998	3	30	12	CEILING HT
1998	3	30	12	SKY COVER

1998	4	1	14	CEILING HT
1998	4	1	14	SKY COVER
1998	4	5	18	SKY COVER
1998	4	5	23	CEILING HT
1998	4	5	23	SKY COVER
1998	4	6	24	SKY COVER
1998	4	7	24	SKY COVER
1998	4	8	24	SKY COVER
1998	4	10	21	CEILING HT
1998	4	10	21	SKY COVER
1998	4	12	5	CEILING HT
1998	4	12	5	SKY COVER
1998	4	12	6	SKY COVER
1998	4	12	18	SKY COVER
1998	4	12	24	SKY COVER
1998	4	13	24	SKY COVER
1998	4	14	1	CEILING HT
1998	4	14	12	SKY COVER
1998	4	15	24	SKY COVER
1998	4	17	6	SKY COVER
1998	4	18	6	SKY COVER
1998	4	18	18	SKY COVER
1998	4	19	6	SKY COVER
1998	4	19	16	CEILING HT
1998	4	19	16	SKY COVER
1998	4	20	18	SKY COVER
1998	4	21	15	CEILING HT
1998	4	21	15	SKY COVER
1998	4	23	19	CEILING HT
1998	4	23	19	SKY COVER
1998	4	23	21	CEILING HT
1998	4	23	21	SKY COVER
1998	4	25	10	CEILING HT
1998	4	25	10	SKY COVER
1998	4	27	24	SKY COVER
1998	4	30	22	CEILING HT
1998	4	30	22	SKY COVER
1998	5	1	16	CEILING HT
1998	5	1	16	SKY COVER
1998	5	2	1	CEILING HT
1998	5	2	1	SKY COVER
1998	5	4	21	CEILING HT
1998	5	4	21	SKY COVER
1998	5	5	6	SKY COVER
1998	5	5	19	CEILING HT
1998	5	5	19	SKY COVER
1998	5	6	12	SKY COVER
1998	5	7	12	SKY COVER
1998	5	8	18	SKY COVER
1998	5	10	17	CEILING HT
1998	5	10	17	SKY COVER
1998	5	11	7	CEILING HT
1998	5	11	7	SKY COVER
1998	5	11	23	CEILING HT
1998	5	11	23	SKY COVER
1998	5	12	1	CEILING HT
1998	5	12	1	SKY COVER
1998	5	16	20	CEILING HT
1998	5	16	20	SKY COVER

1998	5	19	22	CEILING HT
1998	5	19	22	SKY COVER
1998	5	19	24	SKY COVER
1998	5	21	4	CEILING HT
1998	5	21	4	SKY COVER
1998	5	22	19	CEILING HT
1998	5	22	19	SKY COVER
1998	5	23	17	CEILING HT
1998	5	23	17	SKY COVER
1998	5	23	22	CEILING HT
1998	5	23	22	SKY COVER
1998	5	23	24	CEILING HT
1998	5	24	5	CEILING HT
1998	5	24	5	SKY COVER
1998	5	24	18	SKY COVER
1998	5	24	24	SKY COVER
1998	5	25	19	CEILING HT
1998	5	25	19	SKY COVER
1998	5	26	21	CEILING HT
1998	5	26	21	SKY COVER
1998	5	27	4	CEILING HT
1998	5	27	4	SKY COVER
1998	5	27	12	CEILING HT
1998	5	27	12	SKY COVER
1998	5	27	17	CEILING HT
1998	5	27	17	SKY COVER
1998	5	28	2	CEILING HT
1998	5	28	2	SKY COVER
1998	5	28	15	CEILING HT
1998	5	28	15	SKY COVER
1998	5	28	23	CEILING HT
1998	5	28	23	SKY COVER
1998	5	30	7	CEILING HT
1998	5	30	7	SKY COVER
1998	5	30	16	CEILING HT
1998	5	30	16	SKY COVER
1998	6	1	6	SKY COVER
1998	6	1	12	SKY COVER
1998	6	2	24	CEILING HT
1998	6	4	24	SKY COVER
1998	6	5	6	SKY COVER
1998	6	5	18	SKY COVER
1998	6	7	18	SKY COVER
1998	6	9	18	SKY COVER
1998	6	10	16	CEILING HT
1998	6	10	16	SKY COVER
1998	6	11	12	SKY COVER
1998	6	12	13	CEILING HT
1998	6	12	13	SKY COVER
1998	6	13	9	CEILING HT
1998	6	13	9	SKY COVER
1998	6	14	6	SKY COVER
1998	6	14	18	SKY COVER
1998	6	14	24	SKY COVER
1998	6	15	18	SKY COVER
1998	6	15	24	SKY COVER
1998	6	20	1	CEILING HT
1998	6	20	1	SKY COVER
1998	6	23	5	CEILING HT

1998	6	23	5	SKY COVER
1998	6	23	10	CEILING HT
1998	6	23	10	SKY COVER
1998	6	23	16	CEILING HT
1998	6	23	16	SKY COVER
1998	6	24	21	CEILING HT
1998	6	24	21	SKY COVER
1998	6	26	15	CEILING HT
1998	6	26	15	SKY COVER
1998	6	28	7	CEILING HT
1998	6	28	7	SKY COVER
1998	6	28	17	CEILING HT
1998	6	28	17	SKY COVER
1998	6	28	20	CEILING HT
1998	6	28	20	SKY COVER
1998	6	29	4	CEILING HT
1998	6	29	4	SKY COVER
1998	6	30	22	CEILING HT
1998	6	30	22	SKY COVER
1998	7	3	6	CEILING HT
1998	7	4	4	CEILING HT
1998	7	4	4	SKY COVER
1998	7	6	12	SKY COVER
1998	7	6	23	CEILING HT
1998	7	6	23	SKY COVER
1998	7	8	5	CEILING HT
1998	7	8	5	SKY COVER
1998	7	12	20	CEILING HT
1998	7	12	20	SKY COVER
1998	7	13	7	CEILING HT
1998	7	13	7	SKY COVER
1998	7	13	17	CEILING HT
1998	7	13	17	SKY COVER
1998	7	13	22	CEILING HT
1998	7	13	22	SKY COVER
1998	7	14	21	CEILING HT
1998	7	14	21	SKY COVER
1998	7	15	23	CEILING HT
1998	7	15	23	SKY COVER
1998	7	16	19	CEILING HT
1998	7	16	19	SKY COVER
1998	7	17	2	CEILING HT
1998	7	17	2	SKY COVER
1998	7	18	23	CEILING HT
1998	7	18	23	SKY COVER
1998	7	19	4	CEILING HT
1998	7	19	4	SKY COVER
1998	7	19	8	CEILING HT
1998	7	19	8	SKY COVER
1998	7	19	11	CEILING HT
1998	7	19	11	SKY COVER
1998	7	22	17	CEILING HT
1998	7	22	17	SKY COVER
1998	7	23	23	CEILING HT
1998	7	23	23	SKY COVER
1998	7	24	24	SKY COVER
1998	7	25	18	SKY COVER
1998	7	28	12	SKY COVER
1998	7	28	23	CEILING HT

1998	7	28	23	SKY COVER
1998	7	30	20	CEILING HT
1998	7	30	20	SKY COVER
1998	8	1	20	CEILING HT
1998	8	1	20	SKY COVER
1998	8	1	23	CEILING HT
1998	8	1	23	SKY COVER
1998	8	2	2	CEILING HT
1998	8	2	2	SKY COVER
1998	8	2	5	CEILING HT
1998	8	2	5	SKY COVER
1998	8	3	6	SKY COVER
1998	8	3	18	SKY COVER
1998	8	4	12	CEILING HT
1998	8	4	12	SKY COVER
1998	8	7	2	CEILING HT
1998	8	7	2	SKY COVER
1998	8	12	15	CEILING HT
1998	8	12	15	SKY COVER
1998	8	13	20	CEILING HT
1998	8	13	20	SKY COVER
1998	8	14	17	CEILING HT
1998	8	14	17	SKY COVER
1998	8	14	19	CEILING HT
1998	8	14	19	SKY COVER
1998	8	14	23	CEILING HT
1998	8	14	23	SKY COVER
1998	8	15	21	CEILING HT
1998	8	15	21	SKY COVER
1998	8	16	18	CEILING HT
1998	8	16	18	SKY COVER
1998	8	18	1	CEILING HT
1998	8	18	1	SKY COVER
1998	8	18	14	CEILING HT
1998	8	18	14	SKY COVER
1998	8	19	14	CEILING HT
1998	8	19	14	SKY COVER
1998	8	21	1	CEILING HT
1998	8	21	1	SKY COVER
1998	8	21	20	CEILING HT
1998	8	21	20	SKY COVER
1998	8	22	18	CEILING HT
1998	8	22	18	SKY COVER
1998	8	22	23	CEILING HT
1998	8	22	23	SKY COVER
1998	8	26	16	CEILING HT
1998	8	26	16	SKY COVER
1998	8	26	20	CEILING HT
1998	8	26	20	SKY COVER
1998	8	26	24	SKY COVER
1998	8	27	18	SKY COVER
1998	8	28	21	CEILING HT
1998	8	28	21	SKY COVER
1998	8	29	23	CEILING HT
1998	8	29	23	SKY COVER
1998	8	30	23	CEILING HT
1998	8	30	23	SKY COVER
1998	8	31	13	CEILING HT
1998	8	31	13	SKY COVER

1998	9	7	6	SKY COVER
1998	9	8	21	CEILING HT
1998	9	8	21	SKY COVER
1998	9	9	20	CEILING HT
1998	9	9	20	SKY COVER
1998	9	11	24	SKY COVER
1998	9	12	6	SKY COVER
1998	9	12	12	SKY COVER
1998	9	13	6	SKY COVER
1998	9	15	4	CEILING HT
1998	9	15	4	SKY COVER
1998	9	16	16	CEILING HT
1998	9	16	16	SKY COVER
1998	9	16	21	CEILING HT
1998	9	16	21	SKY COVER
1998	9	17	17	CEILING HT
1998	9	17	17	SKY COVER
1998	9	17	23	CEILING HT
1998	9	17	23	SKY COVER
1998	9	19	6	SKY COVER
1998	9	19	20	CEILING HT
1998	9	19	20	SKY COVER
1998	9	19	23	CEILING HT
1998	9	19	23	SKY COVER
1998	9	20	18	SKY COVER
1998	9	23	6	SKY COVER
1998	9	27	21	CEILING HT
1998	9	27	21	SKY COVER
1998	9	30	17	CEILING HT
1998	9	30	17	SKY COVER
1998	10	1	16	CEILING HT
1998	10	1	16	SKY COVER
1998	10	2	2	CEILING HT
1998	10	2	2	SKY COVER
1998	10	2	24	SKY COVER
1998	10	3	2	CEILING HT
1998	10	3	2	SKY COVER
1998	10	3	18	SKY COVER
1998	10	3	24	SKY COVER
1998	10	5	15	CEILING HT
1998	10	5	15	SKY COVER
1998	10	11	21	CEILING HT
1998	10	11	21	SKY COVER
1998	10	14	14	CEILING HT
1998	10	14	14	SKY COVER
1998	10	14	19	CEILING HT
1998	10	14	19	SKY COVER
1998	10	16	19	CEILING HT
1998	10	16	19	SKY COVER
1998	10	17	19	CEILING HT
1998	10	17	19	SKY COVER
1998	10	24	20	CEILING HT
1998	10	24	20	SKY COVER
1998	10	26	15	CEILING HT
1998	10	26	15	SKY COVER
1998	10	30	6	CEILING HT
1998	10	30	6	SKY COVER
1998	10	30	9	CEILING HT
1998	10	30	9	SKY COVER

1998	11	1	17	CEILING HT
1998	11	1	17	SKY COVER
1998	11	2	10	CEILING HT
1998	11	2	10	SKY COVER
1998	11	3	1	CEILING HT
1998	11	3	1	SKY COVER
1998	11	3	12	CEILING HT
1998	11	3	16	CEILING HT
1998	11	3	16	SKY COVER
1998	11	4	8	CEILING HT
1998	11	4	8	SKY COVER
1998	11	10	6	SKY COVER
1998	11	10	18	SKY COVER
1998	11	10	19	CEILING HT
1998	11	12	16	CEILING HT
1998	11	12	16	SKY COVER
1998	11	14	19	CEILING HT
1998	11	14	19	SKY COVER
1998	11	15	17	CEILING HT
1998	11	15	17	SKY COVER
1998	11	15	23	CEILING HT
1998	11	15	23	SKY COVER
1998	11	17	21	CEILING HT
1998	11	17	21	SKY COVER
1998	11	18	12	SKY COVER
1998	11	18	18	SKY COVER
1998	11	19	12	SKY COVER
1998	11	19	23	CEILING HT
1998	11	19	23	SKY COVER
1998	11	22	24	SKY COVER
1998	12	2	7	CEILING HT
1998	12	2	7	SKY COVER
1998	12	3	14	CEILING HT
1998	12	3	14	SKY COVER
1998	12	7	12	CEILING HT
1998	12	7	12	SKY COVER
1998	12	8	15	CEILING HT
1998	12	8	15	SKY COVER
1998	12	9	15	CEILING HT
1998	12	9	15	SKY COVER
1998	12	9	18	SKY COVER
1998	12	11	17	CEILING HT
1998	12	11	17	SKY COVER
1998	12	12	20	CEILING HT
1998	12	12	20	SKY COVER
1998	12	16	12	SKY COVER
1998	12	21	3	CEILING HT
1998	12	21	3	SKY COVER
1998	12	21	14	CEILING HT
1998	12	21	14	SKY COVER
1998	12	22	16	CEILING HT
1998	12	22	16	SKY COVER
1998	12	22	21	CEILING HT
1998	12	22	21	SKY COVER
1998	12	23	15	CEILING HT
1998	12	23	15	SKY COVER
1998	12	24	12	CEILING HT
1998	12	24	12	SKY COVER
1998	12	25	1	CEILING HT

1998	12	25	1	SKY COVER
1998	12	25	7	CEILING HT
1998	12	25	7	SKY COVER
1998	12	25	9	CEILING HT
1998	12	25	9	SKY COVER
1998	12	25	13	CEILING HT
1998	12	25	13	SKY COVER
1998	12	25	19	CEILING HT
1998	12	25	19	SKY COVER
1998	12	26	17	CEILING HT
1998	12	26	17	SKY COVER
1998	12	29	16	CEILING HT
1998	12	29	16	SKY COVER
1998	12	29	24	SKY COVER
1998	12	30	1	CEILING HT
1998	12	30	7	CEILING HT
1998	12	30	7	SKY COVER
1998	12	30	13	CEILING HT
1998	12	30	13	SKY COVER
1998	12	30	18	SKY COVER
1998	12	30	19	CEILING HT
1998	12	31	24	SKY COVER
2000	1	2	24	CEILING HT
2000	1	3	6	CEILING HT
2000	1	3	12	CEILING HT
2000	1	4	20	CEILING HT
2000	1	4	20	SKY COVER
2000	1	5	12	CEILING HT
2000	1	5	20	CEILING HT
2000	1	5	20	SKY COVER
2000	1	5	23	CEILING HT
2000	1	5	23	SKY COVER
2000	1	7	10	CEILING HT
2000	1	7	10	SKY COVER
2000	1	8	24	CEILING HT
2000	1	9	6	CEILING HT
2000	1	9	6	SKY COVER
2000	1	9	24	CEILING HT
2000	1	10	12	CEILING HT
2000	1	10	19	CEILING HT
2000	1	10	19	SKY COVER
2000	1	11	6	CEILING HT
2000	1	13	20	CEILING HT
2000	1	13	20	SKY COVER
2000	1	13	24	CEILING HT
2000	1	13	24	SKY COVER
2000	1	14	6	CEILING HT
2000	1	14	6	SKY COVER
2000	1	14	12	CEILING HT
2000	1	14	12	SKY COVER
2000	1	14	18	CEILING HT
2000	1	14	18	SKY COVER
2000	1	14	24	CEILING HT
2000	1	14	24	SKY COVER
2000	1	15	6	CEILING HT
2000	1	15	6	SKY COVER
2000	1	15	12	CEILING HT
2000	1	15	12	SKY COVER
2000	1	15	18	CEILING HT

2000	1	15	18	SKY COVER
2000	1	15	20	CEILING HT
2000	1	15	20	SKY COVER
2000	1	15	24	CEILING HT
2000	1	15	24	SKY COVER
2000	1	16	12	CEILING HT
2000	1	16	12	SKY COVER
2000	1	16	17	CEILING HT
2000	1	16	17	SKY COVER
2000	1	16	24	CEILING HT
2000	1	16	24	SKY COVER
2000	1	17	6	CEILING HT
2000	1	17	6	SKY COVER
2000	1	17	18	CEILING HT
2000	1	17	18	SKY COVER
2000	1	17	24	CEILING HT
2000	1	17	24	SKY COVER
2000	1	18	6	CEILING HT
2000	1	18	6	SKY COVER
2000	1	18	12	CEILING HT
2000	1	18	12	SKY COVER
2000	1	18	18	CEILING HT
2000	1	18	18	SKY COVER
2000	1	18	24	CEILING HT
2000	1	18	24	SKY COVER
2000	1	19	6	CEILING HT
2000	1	19	6	SKY COVER
2000	1	19	12	CEILING HT
2000	1	19	12	SKY COVER
2000	1	19	14	CEILING HT
2000	1	19	14	SKY COVER
2000	1	19	18	CEILING HT
2000	1	19	21	CEILING HT
2000	1	19	21	SKY COVER
2000	1	21	18	CEILING HT
2000	1	23	12	CEILING HT
2000	1	23	18	CEILING HT
2000	1	23	18	SKY COVER
2000	1	24	12	CEILING HT
2000	1	25	24	CEILING HT
2000	1	27	5	CEILING HT
2000	1	27	5	SKY COVER
2000	1	27	24	CEILING HT
2000	1	27	24	SKY COVER
2000	1	28	12	CEILING HT
2000	1	28	12	SKY COVER
2000	1	29	9	CEILING HT
2000	1	29	9	SKY COVER
2000	1	30	10	CEILING HT
2000	1	30	10	SKY COVER
2000	2	3	12	CEILING HT
2000	2	3	24	CEILING HT
2000	2	4	6	CEILING HT
2000	2	4	12	CEILING HT
2000	2	9	21	CEILING HT
2000	2	9	21	SKY COVER
2000	2	9	22	SKY COVER
2000	2	9	24	CEILING HT
2000	2	9	24	SKY COVER

2000	2	10	12	CEILING HT
2000	2	10	18	CEILING HT
2000	2	11	6	CEILING HT
2000	2	11	12	CEILING HT
2000	2	12	12	CEILING HT
2000	2	12	18	CEILING HT
2000	2	12	24	CEILING HT
2000	2	12	24	SKY COVER
2000	2	13	5	CEILING HT
2000	2	13	5	SKY COVER
2000	2	13	12	CEILING HT
2000	2	14	11	CEILING HT
2000	2	14	11	SKY COVER
2000	2	16	24	CEILING HT
2000	2	17	6	CEILING HT
2000	2	17	12	CEILING HT
2000	2	17	14	CEILING HT
2000	2	17	14	SKY COVER
2000	2	17	18	CEILING HT
2000	2	17	24	CEILING HT
2000	2	18	6	CEILING HT
2000	2	18	12	CEILING HT
2000	2	18	18	CEILING HT
2000	2	21	11	CEILING HT
2000	2	21	11	SKY COVER
2000	2	21	13	CEILING HT
2000	2	21	13	SKY COVER
2000	2	23	20	CEILING HT
2000	2	23	20	SKY COVER
2000	2	25	6	CEILING HT
2000	2	25	18	CEILING HT
2000	2	26	6	CEILING HT
2000	2	26	16	CEILING HT
2000	2	26	16	SKY COVER
2000	2	28	23	CEILING HT
2000	2	28	23	SKY COVER
2000	2	29	6	CEILING HT
2000	2	29	6	SKY COVER
2000	2	29	11	CEILING HT
2000	2	29	11	SKY COVER
2000	2	29	18	CEILING HT
2000	2	29	18	SKY COVER
2000	2	29	24	CEILING HT
2000	2	29	24	SKY COVER
2000	3	1	6	CEILING HT
2000	3	1	6	SKY COVER
2000	3	1	22	CEILING HT
2000	3	1	22	SKY COVER
2000	3	1	24	CEILING HT
2000	3	6	3	CEILING HT
2000	3	6	3	SKY COVER
2000	3	6	6	CEILING HT
2000	3	6	12	CEILING HT
2000	3	6	23	CEILING HT
2000	3	6	23	SKY COVER
2000	3	7	24	CEILING HT
2000	3	8	6	CEILING HT
2000	3	8	18	CEILING HT
2000	3	8	24	CEILING HT

2000	3	9	6	CEILING HT
2000	3	9	12	CEILING HT
2000	3	9	18	CEILING HT
2000	3	10	6	CEILING HT
2000	3	10	12	CEILING HT
2000	3	10	24	CEILING HT
2000	3	11	16	CEILING HT
2000	3	11	16	SKY COVER
2000	3	11	24	CEILING HT
2000	3	12	6	CEILING HT
2000	3	12	24	CEILING HT
2000	3	13	24	CEILING HT
2000	3	14	18	CEILING HT
2000	3	14	24	CEILING HT
2000	3	15	6	CEILING HT
2000	3	15	12	CEILING HT
2000	3	15	19	CEILING HT
2000	3	15	19	SKY COVER
2000	3	17	12	CEILING HT
2000	3	18	6	CEILING HT
2000	3	18	7	SKY COVER
2000	3	18	12	CEILING HT
2000	3	18	23	CEILING HT
2000	3	18	23	SKY COVER
2000	3	19	24	CEILING HT
2000	3	20	6	CEILING HT
2000	3	20	6	SKY COVER
2000	3	20	10	SKY COVER
2000	3	20	12	CEILING HT
2000	3	20	13	SKY COVER
2000	3	20	18	CEILING HT
2000	3	20	24	CEILING HT
2000	3	21	6	CEILING HT
2000	3	21	12	CEILING HT
2000	3	24	6	CEILING HT
2000	3	24	12	CEILING HT
2000	3	24	18	CEILING HT
2000	3	26	12	CEILING HT
2000	3	26	18	CEILING HT
2000	3	27	19	CEILING HT
2000	3	27	19	SKY COVER
2000	3	28	21	CEILING HT
2000	3	28	21	SKY COVER
2000	3	29	6	CEILING HT
2000	3	29	12	CEILING HT
2000	3	29	20	CEILING HT
2000	3	29	20	SKY COVER
2000	3	30	12	CEILING HT
2000	3	30	14	CEILING HT
2000	3	30	14	SKY COVER
2000	3	30	18	CEILING HT
2000	3	30	24	CEILING HT
2000	3	31	18	CEILING HT
2000	4	1	6	CEILING HT
2000	4	1	8	CEILING HT
2000	4	1	8	SKY COVER
2000	4	1	22	CEILING HT
2000	4	1	22	SKY COVER
2000	4	2	6	CEILING HT

2000	4	2	12	CEILING HT
2000	4	2	18	CEILING HT
2000	4	2	24	SKY COVER
2000	4	3	6	CEILING HT
2000	4	3	10	CEILING HT
2000	4	3	10	SKY COVER
2000	4	4	10	CEILING HT
2000	4	4	10	SKY COVER
2000	4	5	15	CEILING HT
2000	4	5	15	SKY COVER
2000	4	5	19	CEILING HT
2000	4	5	19	SKY COVER
2000	4	7	6	CEILING HT
2000	4	7	6	SKY COVER
2000	4	9	2	CEILING HT
2000	4	9	2	SKY COVER
2000	4	10	6	CEILING HT
2000	4	10	12	CEILING HT
2000	4	10	13	SKY COVER
2000	4	11	6	CEILING HT
2000	4	12	21	CEILING HT
2000	4	12	21	SKY COVER
2000	4	14	6	CEILING HT
2000	4	14	12	CEILING HT
2000	4	14	12	SKY COVER
2000	4	14	18	CEILING HT
2000	4	14	24	CEILING HT
2000	4	15	6	CEILING HT
2000	4	15	12	CEILING HT
2000	4	15	18	CEILING HT
2000	4	15	24	CEILING HT
2000	4	15	24	SKY COVER
2000	4	17	11	CEILING HT
2000	4	17	11	SKY COVER
2000	4	17	21	CEILING HT
2000	4	17	21	SKY COVER
2000	4	18	12	CEILING HT
2000	4	18	24	CEILING HT
2000	4	19	5	CEILING HT
2000	4	19	5	SKY COVER
2000	4	19	12	CEILING HT
2000	4	19	18	CEILING HT
2000	4	19	24	CEILING HT
2000	4	20	6	CEILING HT
2000	4	20	24	CEILING HT
2000	4	20	24	SKY COVER
2000	4	21	24	CEILING HT
2000	4	22	6	CEILING HT
2000	4	22	10	CEILING HT
2000	4	22	10	SKY COVER
2000	4	22	12	CEILING HT
2000	4	22	12	SKY COVER
2000	4	23	6	CEILING HT
2000	4	23	11	CEILING HT
2000	4	23	11	SKY COVER
2000	4	23	24	CEILING HT
2000	4	24	4	CEILING HT
2000	4	24	4	SKY COVER
2000	4	24	6	CEILING HT

2000	4	24	12	CEILING HT
2000	4	24	12	SKY COVER
2000	4	24	24	CEILING HT
2000	4	25	19	CEILING HT
2000	4	25	19	SKY COVER
2000	4	26	6	CEILING HT
2000	4	26	10	CEILING HT
2000	4	26	10	SKY COVER
2000	4	26	18	CEILING HT
2000	4	26	23	CEILING HT
2000	4	26	23	SKY COVER
2000	4	27	22	CEILING HT
2000	4	27	22	SKY COVER
2000	4	29	7	CEILING HT
2000	4	29	7	SKY COVER
2000	4	29	12	CEILING HT
2000	4	29	18	CEILING HT
2000	5	3	16	CEILING HT
2000	5	3	16	SKY COVER
2000	5	3	24	CEILING HT
2000	5	3	24	SKY COVER
2000	5	6	6	CEILING HT
2000	5	7	12	CEILING HT
2000	5	7	18	CEILING HT
2000	5	7	24	CEILING HT
2000	5	8	6	CEILING HT
2000	5	8	12	CEILING HT
2000	5	8	18	CEILING HT
2000	5	10	18	CEILING HT
2000	5	11	6	CEILING HT
2000	5	11	12	CEILING HT
2000	5	12	5	CEILING HT
2000	5	12	5	SKY COVER
2000	5	12	17	CEILING HT
2000	5	12	17	SKY COVER
2000	5	14	12	CEILING HT
2000	5	15	3	CEILING HT
2000	5	15	3	SKY COVER
2000	5	15	21	CEILING HT
2000	5	15	21	SKY COVER
2000	5	17	3	CEILING HT
2000	5	17	3	SKY COVER
2000	5	17	5	CEILING HT
2000	5	17	5	SKY COVER
2000	5	17	12	CEILING HT
2000	5	17	18	CEILING HT
2000	5	17	24	CEILING HT
2000	5	18	12	CEILING HT
2000	5	19	22	CEILING HT
2000	5	19	22	SKY COVER
2000	5	19	24	CEILING HT
2000	5	20	6	CEILING HT
2000	5	21	12	CEILING HT
2000	5	21	14	CEILING HT
2000	5	21	14	SKY COVER
2000	5	22	2	SKY COVER
2000	5	22	17	CEILING HT
2000	5	22	17	SKY COVER
2000	5	22	21	CEILING HT

2000	5	22	21	SKY COVER
2000	5	22	24	CEILING HT
2000	5	23	22	CEILING HT
2000	5	23	22	SKY COVER
2000	5	24	1	CEILING HT
2000	5	24	1	SKY COVER
2000	5	25	24	CEILING HT
2000	5	26	6	CEILING HT
2000	5	26	13	CEILING HT
2000	5	26	13	SKY COVER
2000	5	27	6	CEILING HT
2000	5	27	20	CEILING HT
2000	5	27	20	SKY COVER
2000	5	28	5	CEILING HT
2000	5	28	5	SKY COVER
2000	5	28	20	CEILING HT
2000	5	28	20	SKY COVER
2000	5	28	22	CEILING HT
2000	5	28	22	SKY COVER
2000	5	30	6	CEILING HT
2000	5	30	12	CEILING HT
2000	5	30	18	CEILING HT
2000	5	30	24	CEILING HT
2000	5	31	2	CEILING HT
2000	5	31	2	SKY COVER
2000	5	31	6	CEILING HT
2000	5	31	12	CEILING HT
2000	6	1	12	CEILING HT
2000	6	3	17	CEILING HT
2000	6	3	17	SKY COVER
2000	6	5	18	CEILING HT
2000	6	5	18	SKY COVER
2000	6	6	1	CEILING HT
2000	6	6	1	SKY COVER
2000	6	7	18	CEILING HT
2000	6	7	18	SKY COVER
2000	6	9	1	SKY COVER
2000	6	11	21	CEILING HT
2000	6	11	21	SKY COVER
2000	6	12	7	CEILING HT
2000	6	12	7	SKY COVER
2000	6	13	6	CEILING HT
2000	6	13	18	CEILING HT
2000	6	15	6	CEILING HT
2000	6	15	18	CEILING HT
2000	6	15	24	CEILING HT
2000	6	16	6	CEILING HT
2000	6	16	12	CEILING HT
2000	6	16	24	CEILING HT
2000	6	17	5	CEILING HT
2000	6	17	5	SKY COVER
2000	6	19	19	CEILING HT
2000	6	19	19	SKY COVER
2000	6	20	2	CEILING HT
2000	6	20	2	SKY COVER
2000	6	20	6	CEILING HT
2000	6	20	12	CEILING HT
2000	6	20	18	CEILING HT
2000	6	23	1	CEILING HT

2000	6	23	1	SKY COVER
2000	6	24	12	CEILING HT
2000	6	25	18	CEILING HT
2000	6	26	24	CEILING HT
2000	6	27	18	CEILING HT
2000	6	27	24	CEILING HT
2000	6	28	5	CEILING HT
2000	6	28	5	SKY COVER
2000	6	30	13	CEILING HT
2000	6	30	13	SKY COVER
2000	7	3	21	CEILING HT
2000	7	3	21	SKY COVER
2000	7	4	21	CEILING HT
2000	7	4	21	SKY COVER
2000	7	4	23	CEILING HT
2000	7	4	23	SKY COVER
2000	7	6	3	CEILING HT
2000	7	6	3	SKY COVER
2000	7	8	2	CEILING HT
2000	7	8	2	SKY COVER
2000	7	15	21	CEILING HT
2000	7	15	21	SKY COVER
2000	7	16	6	CEILING HT
2000	7	16	12	CEILING HT
2000	7	17	18	CEILING HT
2000	7	17	24	CEILING HT
2000	7	18	1	SKY COVER
2000	7	18	6	CEILING HT
2000	7	22	17	CEILING HT
2000	7	22	17	SKY COVER
2000	7	23	11	SKY COVER
2000	7	24	2	CEILING HT
2000	7	24	2	SKY COVER
2000	7	25	20	SKY COVER
2000	7	27	21	CEILING HT
2000	7	27	21	SKY COVER
2000	7	28	15	SKY COVER
2000	7	28	23	CEILING HT
2000	7	28	23	SKY COVER
2000	8	8	4	CEILING HT
2000	8	8	4	SKY COVER
2000	8	8	15	CEILING HT
2000	8	8	15	SKY COVER
2000	8	10	8	CEILING HT
2000	8	10	8	SKY COVER
2000	8	10	13	CEILING HT
2000	8	10	13	SKY COVER
2000	8	10	18	CEILING HT
2000	8	10	18	SKY COVER
2000	8	10	21	SKY COVER
2000	8	10	22	SKY COVER
2000	8	11	3	CEILING HT
2000	8	11	3	SKY COVER
2000	8	11	9	CEILING HT
2000	8	11	9	SKY COVER
2000	8	12	1	CEILING HT
2000	8	12	1	SKY COVER
2000	8	12	15	CEILING HT
2000	8	12	15	SKY COVER

2000	8	13	1	CEILING HT
2000	8	13	1	SKY COVER
2000	8	13	16	CEILING HT
2000	8	13	16	SKY COVER
2000	8	14	11	CEILING HT
2000	8	14	11	SKY COVER
2000	8	15	2	CEILING HT
2000	8	15	2	SKY COVER
2000	8	15	23	CEILING HT
2000	8	15	23	SKY COVER
2000	8	16	9	CEILING HT
2000	8	16	9	SKY COVER
2000	8	16	23	CEILING HT
2000	8	16	23	SKY COVER
2000	8	17	11	CEILING HT
2000	8	17	11	SKY COVER
2000	8	18	11	CEILING HT
2000	8	18	11	SKY COVER
2000	8	26	24	CEILING HT
2000	8	27	6	CEILING HT
2000	8	30	24	CEILING HT
2000	8	31	6	CEILING HT
2000	8	31	11	CEILING HT
2000	8	31	11	SKY COVER
2000	8	31	24	CEILING HT
2000	9	1	24	CEILING HT
2000	9	2	12	CEILING HT
2000	9	8	16	CEILING HT
2000	9	8	16	SKY COVER
2000	9	9	5	CEILING HT
2000	9	9	5	SKY COVER
2000	9	11	18	CEILING HT
2000	9	15	15	CEILING HT
2000	9	15	15	SKY COVER
2000	9	19	6	CEILING HT
2000	9	19	12	CEILING HT
2000	9	19	18	CEILING HT
2000	9	19	24	CEILING HT
2000	9	20	6	CEILING HT
2000	9	21	18	CEILING HT
2000	9	21	24	CEILING HT
2000	9	22	6	CEILING HT
2000	9	22	10	SKY COVER
2000	9	22	12	CEILING HT
2000	9	22	18	CEILING HT
2000	9	22	24	CEILING HT
2000	9	23	6	CEILING HT
2000	9	23	6	SKY COVER
2000	9	23	12	CEILING HT
2000	9	23	18	CEILING HT
2000	9	23	24	CEILING HT
2000	9	24	6	CEILING HT
2000	9	24	12	CEILING HT
2000	9	26	22	CEILING HT
2000	9	26	22	SKY COVER
2000	9	28	24	CEILING HT
2000	10	2	24	CEILING HT
2000	10	4	6	CEILING HT
2000	10	4	12	CEILING HT

2000	10	5	6	CEILING HT
2000	10	5	12	CEILING HT
2000	10	5	18	CEILING HT
2000	10	6	12	CEILING HT
2000	10	6	18	CEILING HT
2000	10	7	6	CEILING HT
2000	10	8	22	CEILING HT
2000	10	8	22	SKY COVER
2000	10	11	6	CEILING HT
2000	10	12	12	CEILING HT
2000	10	13	3	CEILING HT
2000	10	13	3	SKY COVER
2000	10	13	24	CEILING HT
2000	10	14	18	CEILING HT
2000	10	15	19	CEILING HT
2000	10	15	19	SKY COVER
2000	10	17	17	CEILING HT
2000	10	17	17	SKY COVER
2000	10	19	3	SKY COVER
2000	10	19	17	SKY COVER
2000	10	22	12	CEILING HT
2000	10	22	18	CEILING HT
2000	10	22	24	CEILING HT
2000	10	23	6	CEILING HT
2000	10	23	12	CEILING HT
2000	10	24	18	CEILING HT
2000	10	25	12	CEILING HT
2000	10	25	18	CEILING HT
2000	10	26	4	SKY COVER
2000	10	26	6	CEILING HT
2000	10	26	12	CEILING HT
2000	10	31	6	CEILING HT
2000	10	31	12	CEILING HT
2000	10	31	24	CEILING HT
2000	11	1	6	CEILING HT
2000	11	1	12	CEILING HT
2000	11	1	18	CEILING HT
2000	11	5	12	CEILING HT
2000	11	5	18	CEILING HT
2000	11	5	24	CEILING HT
2000	11	6	12	CEILING HT
2000	11	6	18	CEILING HT
2000	11	6	24	CEILING HT
2000	11	7	6	CEILING HT
2000	11	7	12	CEILING HT
2000	11	7	15	CEILING HT
2000	11	7	15	SKY COVER
2000	11	7	18	CEILING HT
2000	11	7	21	CEILING HT
2000	11	7	21	SKY COVER
2000	11	7	24	CEILING HT
2000	11	8	3	CEILING HT
2000	11	8	3	SKY COVER
2000	11	8	24	CEILING HT
2000	11	9	6	CEILING HT
2000	11	9	6	SKY COVER
2000	11	9	12	CEILING HT
2000	11	9	18	CEILING HT
2000	11	9	24	CEILING HT

2000	11	10	6	CEILING HT
2000	11	10	12	CEILING HT
2000	11	10	18	CEILING HT
2000	11	10	24	CEILING HT
2000	11	11	6	CEILING HT
2000	11	11	10	CEILING HT
2000	11	11	10	SKY COVER
2000	11	12	11	SKY COVER
2000	11	13	16	CEILING HT
2000	11	13	16	SKY COVER
2000	11	15	7	CEILING HT
2000	11	15	7	SKY COVER
2000	11	15	12	CEILING HT
2000	11	15	24	CEILING HT
2000	11	16	6	CEILING HT
2000	11	16	12	CEILING HT
2000	11	17	12	CEILING HT
2000	11	17	18	CEILING HT
2000	11	17	18	SKY COVER
2000	11	18	18	CEILING HT
2000	11	18	19	SKY COVER
2000	11	19	6	CEILING HT
2000	11	19	24	CEILING HT
2000	11	24	1	CEILING HT
2000	11	24	1	SKY COVER
2000	11	25	6	CEILING HT
2000	11	25	14	CEILING HT
2000	11	25	14	SKY COVER
2000	11	26	18	CEILING HT
2000	11	26	18	SKY COVER
2000	11	28	6	CEILING HT
2000	11	28	12	CEILING HT
2000	11	28	18	CEILING HT
2000	11	30	16	CEILING HT
2000	11	30	16	SKY COVER
2000	11	30	18	CEILING HT
2000	11	30	24	CEILING HT
2000	12	1	6	CEILING HT
2000	12	4	12	CEILING HT
2000	12	5	6	CEILING HT
2000	12	5	18	CEILING HT
2000	12	5	18	SKY COVER
2000	12	5	20	SKY COVER
2000	12	5	24	CEILING HT
2000	12	6	22	CEILING HT
2000	12	6	22	SKY COVER
2000	12	7	18	CEILING HT
2000	12	7	24	CEILING HT
2000	12	8	6	CEILING HT
2000	12	8	12	CEILING HT
2000	12	10	6	CEILING HT
2000	12	10	12	CEILING HT
2000	12	10	18	CEILING HT
2000	12	10	24	CEILING HT
2000	12	11	6	CEILING HT
2000	12	11	12	CEILING HT
2000	12	12	6	SKY COVER
2000	12	15	24	CEILING HT
2000	12	16	6	CEILING HT

2000	12	16	12	CEILING HT
2000	12	16	24	CEILING HT
2000	12	18	12	CEILING HT
2000	12	20	6	CEILING HT
2000	12	20	12	CEILING HT
2000	12	22	6	CEILING HT
2000	12	22	12	CEILING HT
2000	12	22	24	CEILING HT
2000	12	23	18	CEILING HT
2000	12	24	18	CEILING HT
2000	12	25	6	CEILING HT
2000	12	25	12	CEILING HT
2000	12	25	18	CEILING HT
2000	12	25	21	CEILING HT
2000	12	25	21	SKY COVER
2000	12	28	12	CEILING HT
2000	12	28	18	CEILING HT
2000	12	29	6	CEILING HT
2000	12	29	24	CEILING HT
2000	12	30	6	CEILING HT
2000	12	30	12	CEILING HT
2000	12	30	18	CEILING HT
2000	12	30	24	CEILING HT
2000	12	31	4	CEILING HT
2000	12	31	4	SKY COVER
2000	12	31	6	CEILING HT
2001	1	1	18	CEILING HT
2001	1	1	24	CEILING HT
2001	1	5	5	CEILING HT
2001	1	5	5	SKY COVER
2001	1	6	22	CEILING HT
2001	1	6	22	SKY COVER
2001	1	7	2	SKY COVER
2001	1	10	24	CEILING HT
2001	1	13	12	CEILING HT
2001	1	13	18	CEILING HT
2001	1	13	24	CEILING HT
2001	1	14	6	CEILING HT
2001	1	14	18	CEILING HT
2001	1	15	12	CEILING HT
2001	1	15	18	CEILING HT
2001	1	15	21	SKY COVER
2001	1	16	6	CEILING HT
2001	1	16	12	CEILING HT
2001	1	16	18	CEILING HT
2001	1	17	24	CEILING HT
2001	1	18	6	CEILING HT
2001	1	18	12	CEILING HT
2001	1	18	18	CEILING HT
2001	1	19	6	CEILING HT
2001	1	20	9	CEILING HT
2001	1	20	9	SKY COVER
2001	1	20	12	CEILING HT
2001	1	20	18	CEILING HT
2001	1	20	24	CEILING HT
2001	1	23	18	CEILING HT
2001	1	25	24	CEILING HT
2001	1	26	6	CEILING HT
2001	1	26	12	CEILING HT

2001	1	28	6	CEILING HT
2001	1	28	12	CEILING HT
2001	1	28	18	CEILING HT
2001	1	28	24	CEILING HT
2001	1	29	6	CEILING HT
2001	1	29	11	CEILING HT
2001	1	29	11	SKY COVER
2001	1	29	23	CEILING HT
2001	1	29	23	SKY COVER
2001	1	31	12	CEILING HT
2001	2	1	6	CEILING HT
2001	2	1	12	CEILING HT
2001	2	1	16	CEILING HT
2001	2	1	16	SKY COVER
2001	2	1	18	CEILING HT
2001	2	2	24	CEILING HT
2001	2	3	6	CEILING HT
2001	2	5	18	CEILING HT
2001	2	5	24	CEILING HT
2001	2	6	6	CEILING HT
2001	2	6	24	CEILING HT
2001	2	7	6	CEILING HT
2001	2	7	12	CEILING HT
2001	2	7	18	CEILING HT
2001	2	7	24	CEILING HT
2001	2	8	6	CEILING HT
2001	2	8	12	CEILING HT
2001	2	9	24	CEILING HT
2001	2	11	12	CEILING HT
2001	2	13	18	CEILING HT
2001	2	13	24	CEILING HT
2001	2	14	6	CEILING HT
2001	2	14	12	CEILING HT
2001	2	16	6	CEILING HT
2001	2	16	12	CEILING HT
2001	2	17	5	CEILING HT
2001	2	17	5	SKY COVER
2001	2	20	18	CEILING HT
2001	2	20	24	CEILING HT
2001	2	23	6	CEILING HT
2001	2	23	12	CEILING HT
2001	2	23	18	CEILING HT
2001	2	23	24	CEILING HT
2001	2	24	6	CEILING HT
2001	2	24	12	CEILING HT
2001	2	24	18	CEILING HT
2001	2	25	6	CEILING HT
2001	2	26	12	CEILING HT
2001	2	26	18	CEILING HT
2001	2	27	6	CEILING HT
2001	2	27	12	CEILING HT
2001	2	27	18	CEILING HT
2001	2	27	24	CEILING HT
2001	3	6	6	CEILING HT
2001	3	6	12	CEILING HT
2001	3	6	22	CEILING HT
2001	3	6	22	SKY COVER
2001	3	8	17	CEILING HT
2001	3	8	17	SKY COVER

2001	3	10	6	CEILING HT
2001	3	10	12	CEILING HT
2001	3	10	18	CEILING HT
2001	3	10	24	CEILING HT
2001	3	11	12	CEILING HT
2001	3	11	18	CEILING HT
2001	3	11	24	CEILING HT
2001	3	12	6	CEILING HT
2001	3	12	12	CEILING HT
2001	3	12	18	CEILING HT
2001	3	12	19	SKY COVER
2001	3	12	21	SKY COVER
2001	3	14	7	CEILING HT
2001	3	14	7	SKY COVER
2001	3	14	18	CEILING HT
2001	3	15	6	CEILING HT
2001	3	15	12	CEILING HT
2001	3	18	12	CEILING HT
2001	3	20	12	CEILING HT
2001	3	20	24	CEILING HT
2001	3	21	24	CEILING HT
2001	3	24	4	CEILING HT
2001	3	24	4	SKY COVER
2001	3	24	6	CEILING HT
2001	3	24	12	CEILING HT
2001	3	24	18	CEILING HT
2001	3	24	24	CEILING HT
2001	3	25	6	CEILING HT
2001	3	25	12	CEILING HT
2001	3	25	18	CEILING HT
2001	3	25	24	CEILING HT
2001	3	26	6	CEILING HT
2001	3	26	12	CEILING HT
2001	3	26	18	CEILING HT
2001	3	26	24	CEILING HT
2001	3	27	6	CEILING HT
2001	3	27	12	CEILING HT
2001	3	27	18	CEILING HT
2001	3	28	24	CEILING HT
2001	3	29	6	CEILING HT
2001	3	29	12	CEILING HT
2001	3	29	18	CEILING HT
2001	3	29	19	SKY COVER
2001	3	30	18	CEILING HT
2001	3	30	24	CEILING HT
2001	3	31	6	CEILING HT
2001	3	31	12	CEILING HT
2001	3	31	17	CEILING HT
2001	3	31	17	SKY COVER
2001	4	1	12	CEILING HT
2001	4	1	24	CEILING HT
2001	4	2	18	CEILING HT
2001	4	2	24	CEILING HT
2001	4	3	12	CEILING HT
2001	4	3	18	CEILING HT
2001	4	3	24	CEILING HT
2001	4	4	6	CEILING HT
2001	4	4	12	CEILING HT
2001	4	4	18	CEILING HT

2001	4	5	6	CEILING HT
2001	4	5	12	CEILING HT
2001	4	5	24	CEILING HT
2001	4	6	6	CEILING HT
2001	4	7	1	CEILING HT
2001	4	7	1	SKY COVER
2001	4	7	12	CEILING HT
2001	4	7	18	CEILING HT
2001	4	8	10	SKY COVER
2001	4	9	7	CEILING HT
2001	4	9	7	SKY COVER
2001	4	10	12	CEILING HT
2001	4	10	18	CEILING HT
2001	4	10	24	CEILING HT
2001	4	11	12	CEILING HT
2001	4	11	24	CEILING HT
2001	4	12	6	CEILING HT
2001	4	14	24	CEILING HT
2001	4	20	12	CEILING HT
2001	4	21	6	CEILING HT
2001	4	21	24	CEILING HT
2001	4	22	17	CEILING HT
2001	4	22	17	SKY COVER
2001	4	22	24	CEILING HT
2001	4	27	19	CEILING HT
2001	4	27	19	SKY COVER
2001	4	29	20	SKY COVER
2001	5	2	6	CEILING HT
2001	5	2	12	CEILING HT
2001	5	2	18	CEILING HT
2001	5	2	24	CEILING HT
2001	5	3	6	CEILING HT
2001	5	3	12	CEILING HT
2001	5	3	18	CEILING HT
2001	5	3	24	CEILING HT
2001	5	4	5	CEILING HT
2001	5	4	5	SKY COVER
2001	5	4	12	CEILING HT
2001	5	4	24	CEILING HT
2001	5	5	12	CEILING HT
2001	5	6	6	CEILING HT
2001	5	6	12	CEILING HT
2001	5	6	19	SKY COVER
2001	5	11	15	CEILING HT
2001	5	11	15	SKY COVER
2001	5	13	22	CEILING HT
2001	5	13	22	SKY COVER
2001	5	14	17	CEILING HT
2001	5	14	17	SKY COVER
2001	5	15	19	CEILING HT
2001	5	15	19	SKY COVER
2001	5	16	12	CEILING HT
2001	5	17	23	CEILING HT
2001	5	17	23	SKY COVER
2001	5	19	6	CEILING HT
2001	5	20	15	CEILING HT
2001	5	20	15	SKY COVER
2001	5	20	17	SKY COVER
2001	5	20	18	CEILING HT

2001	5	21	12	CEILING HT
2001	5	22	12	CEILING HT
2001	5	23	11	CEILING HT
2001	5	23	11	SKY COVER
2001	5	27	6	CEILING HT
2001	5	27	24	CEILING HT
2001	5	30	6	CEILING HT
2001	6	2	3	CEILING HT
2001	6	2	3	SKY COVER
2001	6	3	6	CEILING HT
2001	6	3	12	CEILING HT
2001	6	4	6	CEILING HT
2001	6	4	18	CEILING HT
2001	6	4	24	CEILING HT
2001	6	7	19	CEILING HT
2001	6	7	19	SKY COVER
2001	6	8	15	CEILING HT
2001	6	8	15	SKY COVER
2001	6	9	1	CEILING HT
2001	6	9	1	SKY COVER
2001	6	9	4	CEILING HT
2001	6	9	4	SKY COVER
2001	6	11	5	CEILING HT
2001	6	11	5	SKY COVER
2001	6	11	17	SKY COVER
2001	6	11	18	CEILING HT
2001	6	11	19	SKY COVER
2001	6	11	20	SKY COVER
2001	6	11	21	SKY COVER
2001	6	11	22	CEILING HT
2001	6	12	1	SKY COVER
2001	6	12	2	SKY COVER
2001	6	12	24	CEILING HT
2001	6	14	6	CEILING HT
2001	6	14	7	SKY COVER
2001	6	14	12	CEILING HT
2001	6	14	18	CEILING HT
2001	6	15	12	CEILING HT
2001	6	18	5	CEILING HT
2001	6	18	5	SKY COVER
2001	6	19	12	CEILING HT
2001	6	20	6	CEILING HT
2001	6	21	19	CEILING HT
2001	6	21	19	SKY COVER
2001	6	22	3	CEILING HT
2001	6	22	3	SKY COVER
2001	6	23	1	CEILING HT
2001	6	23	1	SKY COVER
2001	6	23	22	CEILING HT
2001	6	23	22	SKY COVER
2001	6	26	5	CEILING HT
2001	6	26	5	SKY COVER
2001	6	27	3	CEILING HT
2001	6	27	3	SKY COVER
2001	6	27	6	CEILING HT
2001	6	27	11	CEILING HT
2001	6	27	11	SKY COVER
2001	7	1	12	CEILING HT
2001	7	2	21	CEILING HT

2001	7	2	21	SKY COVER
2001	7	5	22	CEILING HT
2001	7	5	22	SKY COVER
2001	7	6	17	CEILING HT
2001	7	6	17	SKY COVER
2001	7	7	15	CEILING HT
2001	7	7	15	SKY COVER
2001	7	8	23	CEILING HT
2001	7	8	23	SKY COVER
2001	7	10	5	CEILING HT
2001	7	10	5	SKY COVER
2001	7	12	20	SKY COVER
2001	7	13	21	CEILING HT
2001	7	13	21	SKY COVER
2001	7	14	1	CEILING HT
2001	7	14	1	SKY COVER
2001	7	18	19	CEILING HT
2001	7	18	19	SKY COVER
2001	7	19	19	CEILING HT
2001	7	19	19	SKY COVER
2001	7	23	12	CEILING HT
2001	7	24	12	CEILING HT
2001	7	26	10	CEILING HT
2001	7	26	10	SKY COVER
2001	7	26	12	CEILING HT
2001	7	26	24	CEILING HT
2001	7	31	6	CEILING HT
2001	8	2	15	CEILING HT
2001	8	2	15	SKY COVER
2001	8	2	19	CEILING HT
2001	8	2	19	SKY COVER
2001	8	3	7	CEILING HT
2001	8	3	7	SKY COVER
2001	8	3	13	CEILING HT
2001	8	3	13	SKY COVER
2001	8	3	19	CEILING HT
2001	8	3	19	SKY COVER
2001	8	4	1	CEILING HT
2001	8	4	1	SKY COVER
2001	8	4	7	CEILING HT
2001	8	4	7	SKY COVER
2001	8	4	13	CEILING HT
2001	8	4	13	SKY COVER
2001	8	4	19	CEILING HT
2001	8	4	19	SKY COVER
2001	8	5	13	CEILING HT
2001	8	5	13	SKY COVER
2001	8	5	19	CEILING HT
2001	8	5	19	SKY COVER
2001	8	6	7	CEILING HT
2001	8	6	7	SKY COVER
2001	8	6	13	CEILING HT
2001	8	6	13	SKY COVER
2001	8	6	19	CEILING HT
2001	8	6	19	SKY COVER
2001	8	7	1	CEILING HT
2001	8	7	1	SKY COVER
2001	8	7	7	CEILING HT
2001	8	7	7	SKY COVER

2001	8	7	13	CEILING HT
2001	8	7	13	SKY COVER
2001	8	8	1	CEILING HT
2001	8	8	1	SKY COVER
2001	8	8	7	SKY COVER
2001	8	8	19	CEILING HT
2001	8	8	19	SKY COVER
2001	8	9	7	SKY COVER
2001	8	9	13	SKY COVER
2001	8	9	19	CEILING HT
2001	8	9	19	SKY COVER
2001	8	10	1	CEILING HT
2001	8	10	1	SKY COVER
2001	8	10	7	SKY COVER
2001	8	10	13	CEILING HT
2001	8	10	13	SKY COVER
2001	8	10	19	CEILING HT
2001	8	10	19	SKY COVER
2001	8	11	1	CEILING HT
2001	8	11	1	SKY COVER
2001	8	11	7	CEILING HT
2001	8	11	7	SKY COVER
2001	8	11	13	CEILING HT
2001	8	11	13	SKY COVER
2001	8	11	19	CEILING HT
2001	8	11	19	SKY COVER
2001	8	12	1	CEILING HT
2001	8	12	1	SKY COVER
2001	8	12	7	CEILING HT
2001	8	12	7	SKY COVER
2001	8	12	13	CEILING HT
2001	8	12	13	SKY COVER
2001	8	12	19	CEILING HT
2001	8	12	19	SKY COVER
2001	8	13	1	CEILING HT
2001	8	13	1	SKY COVER
2001	8	13	7	CEILING HT
2001	8	13	7	SKY COVER
2001	8	13	13	CEILING HT
2001	8	13	13	SKY COVER
2001	8	13	19	CEILING HT
2001	8	13	19	SKY COVER
2001	8	14	1	CEILING HT
2001	8	14	1	SKY COVER
2001	8	14	7	CEILING HT
2001	8	14	7	SKY COVER
2001	8	14	13	CEILING HT
2001	8	14	13	SKY COVER
2001	8	14	19	CEILING HT
2001	8	14	19	SKY COVER
2001	8	15	1	CEILING HT
2001	8	15	1	SKY COVER
2001	8	15	7	SKY COVER
2001	8	15	13	SKY COVER
2001	8	15	19	CEILING HT
2001	8	15	19	SKY COVER
2001	8	16	1	CEILING HT
2001	8	16	1	SKY COVER
2001	8	16	7	SKY COVER

2001	8	16	13	CEILING HT
2001	8	16	13	SKY COVER
2001	8	17	1	CEILING HT
2001	8	17	1	SKY COVER
2001	8	17	7	CEILING HT
2001	8	17	7	SKY COVER
2001	8	17	13	CEILING HT
2001	8	17	13	SKY COVER
2001	8	17	19	CEILING HT
2001	8	17	19	SKY COVER
2001	8	18	1	CEILING HT
2001	8	18	1	SKY COVER
2001	8	18	7	CEILING HT
2001	8	18	7	SKY COVER
2001	8	18	13	CEILING HT
2001	8	18	13	SKY COVER
2001	8	18	19	CEILING HT
2001	8	18	19	SKY COVER
2001	8	19	1	CEILING HT
2001	8	19	1	SKY COVER
2001	8	19	7	CEILING HT
2001	8	19	7	SKY COVER
2001	8	19	13	CEILING HT
2001	8	19	13	SKY COVER
2001	8	19	19	CEILING HT
2001	8	19	19	SKY COVER
2001	8	20	1	CEILING HT
2001	8	20	1	SKY COVER
2001	8	20	7	CEILING HT
2001	8	20	7	SKY COVER
2001	8	20	13	CEILING HT
2001	8	20	13	SKY COVER
2001	8	21	1	CEILING HT
2001	8	21	1	SKY COVER
2001	8	21	7	CEILING HT
2001	8	21	7	SKY COVER
2001	8	21	13	CEILING HT
2001	8	21	13	SKY COVER
2001	8	21	19	CEILING HT
2001	8	21	19	SKY COVER
2001	8	22	13	CEILING HT
2001	8	22	13	SKY COVER
2001	8	22	19	CEILING HT
2001	8	22	19	SKY COVER
2001	8	23	7	CEILING HT
2001	8	23	7	SKY COVER
2001	8	23	13	CEILING HT
2001	8	23	13	SKY COVER
2001	8	23	19	CEILING HT
2001	8	23	19	SKY COVER
2001	8	24	1	CEILING HT
2001	8	24	1	SKY COVER
2001	8	24	7	CEILING HT
2001	8	24	7	SKY COVER
2001	8	24	13	CEILING HT
2001	8	24	13	SKY COVER
2001	8	25	1	CEILING HT
2001	8	25	1	SKY COVER
2001	8	25	7	CEILING HT

2001	8	25	7	SKY COVER
2001	8	25	13	CEILING HT
2001	8	25	13	SKY COVER
2001	8	26	7	CEILING HT
2001	8	26	7	SKY COVER
2001	8	26	13	CEILING HT
2001	8	26	13	SKY COVER
2001	8	26	19	CEILING HT
2001	8	26	19	SKY COVER
2001	8	27	1	CEILING HT
2001	8	27	1	SKY COVER
2001	8	27	7	CEILING HT
2001	8	27	7	SKY COVER
2001	8	27	13	CEILING HT
2001	8	27	13	SKY COVER
2001	8	27	19	CEILING HT
2001	8	27	19	SKY COVER
2001	8	28	1	CEILING HT
2001	8	28	1	SKY COVER
2001	8	28	7	CEILING HT
2001	8	28	7	SKY COVER
2001	8	28	13	CEILING HT
2001	8	28	13	SKY COVER
2001	8	28	19	CEILING HT
2001	8	28	19	SKY COVER
2001	8	29	1	CEILING HT
2001	8	29	1	SKY COVER
2001	8	29	7	CEILING HT
2001	8	29	7	SKY COVER
2001	8	29	13	CEILING HT
2001	8	29	13	SKY COVER
2001	8	29	19	CEILING HT
2001	8	29	19	SKY COVER
2001	8	30	1	CEILING HT
2001	8	30	1	SKY COVER
2001	8	30	7	CEILING HT
2001	8	30	7	SKY COVER
2001	8	30	13	CEILING HT
2001	8	30	13	SKY COVER
2001	8	30	19	CEILING HT
2001	8	30	19	SKY COVER
2001	8	31	1	CEILING HT
2001	8	31	1	SKY COVER
2001	8	31	7	CEILING HT
2001	8	31	7	SKY COVER
2001	8	31	13	CEILING HT
2001	8	31	13	SKY COVER
2001	8	31	19	CEILING HT
2001	8	31	19	SKY COVER
2001	9	1	7	CEILING HT
2001	9	1	7	SKY COVER
2001	9	1	13	CEILING HT
2001	9	1	13	SKY COVER
2001	9	1	19	CEILING HT
2001	9	1	19	SKY COVER
2001	9	2	1	CEILING HT
2001	9	2	1	SKY COVER
2001	9	2	7	CEILING HT
2001	9	2	7	SKY COVER

2001	9	2	13	CEILING HT
2001	9	2	13	SKY COVER
2001	9	2	19	CEILING HT
2001	9	2	19	SKY COVER
2001	9	3	7	CEILING HT
2001	9	3	7	SKY COVER
2001	9	3	13	CEILING HT
2001	9	3	13	SKY COVER
2001	9	4	7	CEILING HT
2001	9	4	7	SKY COVER
2001	9	4	13	CEILING HT
2001	9	4	13	SKY COVER
2001	9	4	19	CEILING HT
2001	9	4	19	SKY COVER
2001	9	5	1	CEILING HT
2001	9	5	1	SKY COVER
2001	9	5	7	CEILING HT
2001	9	5	7	SKY COVER
2001	9	5	13	CEILING HT
2001	9	5	13	SKY COVER
2001	9	5	19	CEILING HT
2001	9	5	19	SKY COVER
2001	9	6	1	CEILING HT
2001	9	6	1	SKY COVER
2001	9	6	7	CEILING HT
2001	9	6	7	SKY COVER
2001	9	6	13	SKY COVER
2001	9	6	19	CEILING HT
2001	9	6	19	SKY COVER
2001	9	7	1	CEILING HT
2001	9	7	1	SKY COVER
2001	9	7	7	CEILING HT
2001	9	7	7	SKY COVER
2001	9	7	13	CEILING HT
2001	9	7	13	SKY COVER
2001	9	7	19	SKY COVER
2001	9	8	1	SKY COVER
2001	9	8	13	SKY COVER
2001	9	8	19	CEILING HT
2001	9	8	19	SKY COVER
2001	9	9	1	CEILING HT
2001	9	9	1	SKY COVER
2001	9	9	7	CEILING HT
2001	9	9	7	SKY COVER
2001	9	9	13	CEILING HT
2001	9	9	13	SKY COVER
2001	9	9	19	CEILING HT
2001	9	9	19	SKY COVER
2001	9	10	1	CEILING HT
2001	9	10	1	SKY COVER
2001	9	10	7	CEILING HT
2001	9	10	7	SKY COVER
2001	9	10	13	CEILING HT
2001	9	10	13	SKY COVER
2001	9	10	19	CEILING HT
2001	9	10	19	SKY COVER
2001	9	11	1	CEILING HT
2001	9	11	1	SKY COVER
2001	9	11	7	CEILING HT

2001	9	11	7	SKY COVER
2001	9	11	13	CEILING HT
2001	9	11	13	SKY COVER
2001	9	12	1	CEILING HT
2001	9	12	1	SKY COVER
2001	9	12	7	CEILING HT
2001	9	12	7	SKY COVER
2001	9	12	13	CEILING HT
2001	9	12	13	SKY COVER
2001	9	12	19	CEILING HT
2001	9	12	19	SKY COVER
2001	9	13	1	CEILING HT
2001	9	13	1	SKY COVER
2001	9	13	7	CEILING HT
2001	9	13	7	SKY COVER
2001	9	13	19	CEILING HT
2001	9	13	19	SKY COVER
2001	9	14	1	CEILING HT
2001	9	14	1	SKY COVER
2001	9	14	7	CEILING HT
2001	9	14	7	SKY COVER
2001	9	14	13	CEILING HT
2001	9	14	13	SKY COVER
2001	9	14	19	SKY COVER
2001	9	15	1	SKY COVER
2001	9	15	7	SKY COVER
2001	9	15	13	SKY COVER
2001	9	15	19	CEILING HT
2001	9	15	19	SKY COVER
2001	9	16	1	CEILING HT
2001	9	16	1	SKY COVER
2001	9	16	7	CEILING HT
2001	9	16	7	SKY COVER
2001	9	16	13	CEILING HT
2001	9	16	13	SKY COVER
2001	9	16	19	CEILING HT
2001	9	16	19	SKY COVER
2001	9	17	1	CEILING HT
2001	9	17	1	SKY COVER
2001	9	17	7	CEILING HT
2001	9	17	7	SKY COVER
2001	9	17	13	CEILING HT
2001	9	17	13	SKY COVER
2001	9	17	19	CEILING HT
2001	9	17	19	SKY COVER
2001	9	18	1	SKY COVER
2001	9	18	7	SKY COVER
2001	9	18	13	CEILING HT
2001	9	18	13	SKY COVER
2001	9	19	1	CEILING HT
2001	9	19	1	SKY COVER
2001	9	19	7	CEILING HT
2001	9	19	7	SKY COVER
2001	9	19	13	CEILING HT
2001	9	19	13	SKY COVER
2001	9	19	19	CEILING HT
2001	9	19	19	SKY COVER
2001	9	20	7	CEILING HT
2001	9	20	7	SKY COVER

2001	9	20	13	CEILING HT
2001	9	20	13	SKY COVER
2001	9	20	19	CEILING HT
2001	9	20	19	SKY COVER
2001	9	21	1	CEILING HT
2001	9	21	1	SKY COVER
2001	9	21	7	CEILING HT
2001	9	21	7	SKY COVER
2001	9	21	13	CEILING HT
2001	9	21	13	SKY COVER
2001	9	22	1	CEILING HT
2001	9	22	1	SKY COVER
2001	9	22	7	CEILING HT
2001	9	22	7	SKY COVER
2001	9	22	13	CEILING HT
2001	9	22	13	SKY COVER
2001	9	22	19	CEILING HT
2001	9	22	19	SKY COVER
2001	9	23	1	CEILING HT
2001	9	23	1	SKY COVER
2001	9	23	7	CEILING HT
2001	9	23	7	SKY COVER
2001	9	23	13	CEILING HT
2001	9	23	13	SKY COVER
2001	9	24	1	CEILING HT
2001	9	24	1	SKY COVER
2001	9	24	7	CEILING HT
2001	9	24	7	SKY COVER
2001	9	24	13	CEILING HT
2001	9	24	13	SKY COVER
2001	9	24	19	CEILING HT
2001	9	24	19	SKY COVER
2001	9	25	1	CEILING HT
2001	9	25	1	SKY COVER
2001	9	25	7	CEILING HT
2001	9	25	7	SKY COVER
2001	9	25	13	CEILING HT
2001	9	25	13	SKY COVER
2001	9	25	19	CEILING HT
2001	9	25	19	SKY COVER
2001	9	26	1	CEILING HT
2001	9	26	1	SKY COVER
2001	9	26	7	CEILING HT
2001	9	26	7	SKY COVER
2001	9	26	13	CEILING HT
2001	9	26	13	SKY COVER
2001	9	26	19	CEILING HT
2001	9	26	19	SKY COVER
2001	9	27	1	CEILING HT
2001	9	27	1	SKY COVER
2001	9	27	7	CEILING HT
2001	9	27	7	SKY COVER
2001	9	27	13	CEILING HT
2001	9	27	13	SKY COVER
2001	9	27	19	CEILING HT
2001	9	27	19	SKY COVER
2001	9	28	7	CEILING HT
2001	9	28	7	SKY COVER
2001	9	28	13	CEILING HT

2001	9	28	13	SKY COVER
2001	9	28	19	CEILING HT
2001	9	28	19	SKY COVER
2001	9	29	1	CEILING HT
2001	9	29	1	SKY COVER
2001	9	29	7	CEILING HT
2001	9	29	7	SKY COVER
2001	9	29	13	CEILING HT
2001	9	29	13	SKY COVER
2001	9	29	19	CEILING HT
2001	9	29	19	SKY COVER
2001	9	30	1	CEILING HT
2001	9	30	1	SKY COVER
2001	9	30	7	CEILING HT
2001	9	30	7	SKY COVER
2001	9	30	13	CEILING HT
2001	9	30	13	SKY COVER
2001	9	30	19	CEILING HT
2001	9	30	19	SKY COVER
2001	10	1	1	CEILING HT
2001	10	1	1	SKY COVER
2001	10	1	7	CEILING HT
2001	10	1	7	SKY COVER
2001	10	1	13	CEILING HT
2001	10	1	13	SKY COVER
2001	10	1	19	CEILING HT
2001	10	1	19	SKY COVER
2001	10	2	7	CEILING HT
2001	10	2	7	SKY COVER
2001	10	2	13	CEILING HT
2001	10	2	13	SKY COVER
2001	10	2	19	CEILING HT
2001	10	2	19	SKY COVER
2001	10	3	1	CEILING HT
2001	10	3	1	SKY COVER
2001	10	3	7	CEILING HT
2001	10	3	7	SKY COVER
2001	10	3	13	CEILING HT
2001	10	3	13	SKY COVER
2001	10	3	19	CEILING HT
2001	10	3	19	SKY COVER
2001	10	4	1	CEILING HT
2001	10	4	1	SKY COVER
2001	10	4	13	CEILING HT
2001	10	4	13	SKY COVER
2001	10	4	19	SKY COVER
2001	10	5	1	SKY COVER
2001	10	5	5	CEILING HT
2001	10	5	5	SKY COVER
2001	10	5	14	CEILING HT
2001	10	5	14	SKY COVER
2001	10	5	19	CEILING HT
2001	10	5	19	SKY COVER
2001	10	6	1	CEILING HT
2001	10	6	1	SKY COVER
2001	10	6	7	CEILING HT
2001	10	6	7	SKY COVER
2001	10	6	13	CEILING HT
2001	10	6	13	SKY COVER

2001	10	6	19	CEILING HT
2001	10	6	19	SKY COVER
2001	10	7	1	CEILING HT
2001	10	7	1	SKY COVER
2001	10	7	7	CEILING HT
2001	10	7	7	SKY COVER
2001	10	7	13	CEILING HT
2001	10	7	13	SKY COVER
2001	10	7	19	CEILING HT
2001	10	7	19	SKY COVER
2001	10	8	7	CEILING HT
2001	10	8	7	SKY COVER
2001	10	8	13	CEILING HT
2001	10	8	13	SKY COVER
2001	10	8	19	CEILING HT
2001	10	8	19	SKY COVER
2001	10	9	7	CEILING HT
2001	10	9	7	SKY COVER
2001	10	9	13	SKY COVER
2001	10	9	19	SKY COVER
2001	10	9	23	CEILING HT
2001	10	9	23	SKY COVER
2001	10	10	1	SKY COVER
2001	10	10	7	SKY COVER
2001	10	10	13	CEILING HT
2001	10	10	13	SKY COVER
2001	10	10	19	SKY COVER
2001	10	11	7	CEILING HT
2001	10	11	7	SKY COVER
2001	10	11	13	CEILING HT
2001	10	11	13	SKY COVER
2001	10	11	19	CEILING HT
2001	10	11	19	SKY COVER
2001	10	12	7	SKY COVER
2001	10	12	13	CEILING HT
2001	10	12	13	SKY COVER
2001	10	12	19	CEILING HT
2001	10	12	19	SKY COVER
2001	10	13	1	SKY COVER
2001	10	13	7	SKY COVER
2001	10	13	13	SKY COVER
2001	10	13	19	SKY COVER
2001	10	14	1	CEILING HT
2001	10	14	1	SKY COVER
2001	10	14	7	CEILING HT
2001	10	14	7	SKY COVER
2001	10	14	13	SKY COVER
2001	10	14	19	CEILING HT
2001	10	14	19	SKY COVER
2001	10	15	3	CEILING HT
2001	10	15	3	SKY COVER
2001	10	15	7	CEILING HT
2001	10	15	7	SKY COVER
2001	10	15	13	SKY COVER
2001	10	15	19	CEILING HT
2001	10	15	19	SKY COVER
2001	10	16	7	CEILING HT
2001	10	16	7	SKY COVER
2001	10	16	13	CEILING HT

2001	10	16	13	SKY COVER
2001	10	16	19	CEILING HT
2001	10	16	19	SKY COVER
2001	10	17	7	CEILING HT
2001	10	17	7	SKY COVER
2001	10	17	13	CEILING HT
2001	10	17	13	SKY COVER
2001	10	17	19	CEILING HT
2001	10	17	19	SKY COVER
2001	10	18	1	CEILING HT
2001	10	18	1	SKY COVER
2001	10	18	7	SKY COVER
2001	10	18	13	SKY COVER
2001	10	18	18	CEILING HT
2001	10	18	18	SKY COVER
2001	10	19	1	CEILING HT
2001	10	19	1	SKY COVER
2001	10	19	7	CEILING HT
2001	10	19	7	SKY COVER
2001	10	19	13	CEILING HT
2001	10	19	13	SKY COVER
2001	10	19	19	CEILING HT
2001	10	19	19	SKY COVER
2001	10	20	1	CEILING HT
2001	10	20	1	SKY COVER
2001	10	20	7	CEILING HT
2001	10	20	7	SKY COVER
2001	10	20	13	CEILING HT
2001	10	20	13	SKY COVER
2001	10	21	1	CEILING HT
2001	10	21	1	SKY COVER
2001	10	21	7	CEILING HT
2001	10	21	7	SKY COVER
2001	10	21	13	CEILING HT
2001	10	21	13	SKY COVER
2001	10	21	19	CEILING HT
2001	10	21	19	SKY COVER
2001	10	22	1	CEILING HT
2001	10	22	1	SKY COVER
2001	10	22	7	CEILING HT
2001	10	22	7	SKY COVER
2001	10	22	13	CEILING HT
2001	10	22	13	SKY COVER
2001	10	22	19	CEILING HT
2001	10	22	19	SKY COVER
2001	10	23	1	CEILING HT
2001	10	23	1	SKY COVER
2001	10	23	7	CEILING HT
2001	10	23	7	SKY COVER
2001	10	23	13	CEILING HT
2001	10	23	13	SKY COVER
2001	10	23	21	CEILING HT
2001	10	23	21	SKY COVER
2001	10	24	1	CEILING HT
2001	10	24	1	SKY COVER
2001	10	24	7	CEILING HT
2001	10	24	7	SKY COVER
2001	10	24	13	CEILING HT
2001	10	24	13	SKY COVER

2001	10	24	19	CEILING HT
2001	10	24	19	SKY COVER
2001	10	25	1	CEILING HT
2001	10	25	1	SKY COVER
2001	10	25	7	CEILING HT
2001	10	25	7	SKY COVER
2001	10	25	13	CEILING HT
2001	10	25	13	SKY COVER
2001	10	25	19	CEILING HT
2001	10	25	19	SKY COVER
2001	10	26	1	CEILING HT
2001	10	26	1	SKY COVER
2001	10	26	13	CEILING HT
2001	10	26	13	SKY COVER
2001	10	26	19	CEILING HT
2001	10	26	19	SKY COVER
2001	10	27	1	CEILING HT
2001	10	27	1	SKY COVER
2001	10	27	7	CEILING HT
2001	10	27	7	SKY COVER
2001	10	27	13	CEILING HT
2001	10	27	13	SKY COVER
2001	10	27	19	CEILING HT
2001	10	27	19	SKY COVER
2001	10	28	1	CEILING HT
2001	10	28	1	SKY COVER
2001	10	28	7	CEILING HT
2001	10	28	7	SKY COVER
2001	10	28	13	CEILING HT
2001	10	28	13	SKY COVER
2001	10	28	19	CEILING HT
2001	10	28	19	SKY COVER
2001	10	29	1	CEILING HT
2001	10	29	1	SKY COVER
2001	10	29	7	CEILING HT
2001	10	29	7	SKY COVER
2001	10	29	13	CEILING HT
2001	10	29	13	SKY COVER
2001	10	29	19	CEILING HT
2001	10	29	19	SKY COVER
2001	10	30	1	CEILING HT
2001	10	30	1	SKY COVER
2001	10	30	7	CEILING HT
2001	10	30	7	SKY COVER
2001	10	30	13	CEILING HT
2001	10	30	13	SKY COVER
2001	10	30	19	CEILING HT
2001	10	30	19	SKY COVER
2001	10	31	7	CEILING HT
2001	10	31	7	SKY COVER
2001	10	31	13	CEILING HT
2001	10	31	13	SKY COVER
2001	10	31	19	SKY COVER
2001	11	1	1	CEILING HT
2001	11	1	1	SKY COVER
2001	11	1	7	CEILING HT
2001	11	1	7	SKY COVER
2001	11	1	13	CEILING HT
2001	11	1	13	SKY COVER

2001	11	1	19	CEILING HT
2001	11	1	19	SKY COVER
2001	11	2	1	CEILING HT
2001	11	2	1	SKY COVER
2001	11	2	7	CEILING HT
2001	11	2	7	SKY COVER
2001	11	2	13	CEILING HT
2001	11	2	13	SKY COVER
2001	11	3	1	CEILING HT
2001	11	3	1	SKY COVER
2001	11	3	7	CEILING HT
2001	11	3	7	SKY COVER
2001	11	3	13	CEILING HT
2001	11	3	13	SKY COVER
2001	11	3	19	CEILING HT
2001	11	3	19	SKY COVER
2001	11	4	1	CEILING HT
2001	11	4	1	SKY COVER
2001	11	4	7	CEILING HT
2001	11	4	7	SKY COVER
2001	11	4	13	CEILING HT
2001	11	4	13	SKY COVER
2001	11	5	1	CEILING HT
2001	11	5	1	SKY COVER
2001	11	5	7	CEILING HT
2001	11	5	7	SKY COVER
2001	11	5	13	CEILING HT
2001	11	5	13	SKY COVER
2001	11	5	19	CEILING HT
2001	11	5	19	SKY COVER
2001	11	6	1	CEILING HT
2001	11	6	1	SKY COVER
2001	11	6	7	CEILING HT
2001	11	6	7	SKY COVER
2001	11	6	13	CEILING HT
2001	11	6	13	SKY COVER
2001	11	6	19	CEILING HT
2001	11	6	19	SKY COVER
2001	11	7	1	CEILING HT
2001	11	7	1	SKY COVER
2001	11	7	7	CEILING HT
2001	11	7	7	SKY COVER
2001	11	7	13	CEILING HT
2001	11	7	13	SKY COVER
2001	11	7	18	CEILING HT
2001	11	7	19	SKY COVER
2001	11	7	21	CEILING HT
2001	11	7	21	SKY COVER
2001	11	8	2	CEILING HT
2001	11	8	2	SKY COVER
2001	11	8	7	CEILING HT
2001	11	8	7	SKY COVER
2001	11	8	13	CEILING HT
2001	11	8	13	SKY COVER
2001	11	8	19	CEILING HT
2001	11	8	19	SKY COVER
2001	11	9	7	CEILING HT
2001	11	9	7	SKY COVER
2001	11	9	13	CEILING HT

2001	11	9	13	SKY COVER
2001	11	9	19	CEILING HT
2001	11	9	19	SKY COVER
2001	11	10	1	CEILING HT
2001	11	10	1	SKY COVER
2001	11	10	7	CEILING HT
2001	11	10	7	SKY COVER
2001	11	10	13	CEILING HT
2001	11	10	13	SKY COVER
2001	11	10	19	CEILING HT
2001	11	10	19	SKY COVER
2001	11	11	1	CEILING HT
2001	11	11	1	SKY COVER
2001	11	11	7	SKY COVER
2001	11	11	13	CEILING HT
2001	11	11	13	SKY COVER
2001	11	11	19	CEILING HT
2001	11	11	19	SKY COVER
2001	11	12	1	CEILING HT
2001	11	12	1	SKY COVER
2001	11	12	7	CEILING HT
2001	11	12	7	SKY COVER
2001	11	12	13	CEILING HT
2001	11	12	13	SKY COVER
2001	11	12	19	CEILING HT
2001	11	12	19	SKY COVER
2001	11	13	1	CEILING HT
2001	11	13	1	SKY COVER
2001	11	13	7	CEILING HT
2001	11	13	7	SKY COVER
2001	11	13	13	CEILING HT
2001	11	13	13	SKY COVER
2001	11	13	19	CEILING HT
2001	11	13	19	SKY COVER
2001	11	14	1	CEILING HT
2001	11	14	1	SKY COVER
2001	11	14	7	CEILING HT
2001	11	14	7	SKY COVER
2001	11	14	13	CEILING HT
2001	11	14	13	SKY COVER
2001	11	14	19	CEILING HT
2001	11	14	19	SKY COVER
2001	11	15	1	CEILING HT
2001	11	15	1	SKY COVER
2001	11	15	7	CEILING HT
2001	11	15	7	SKY COVER
2001	11	15	13	CEILING HT
2001	11	15	13	SKY COVER
2001	11	15	19	CEILING HT
2001	11	15	19	SKY COVER
2001	11	16	1	CEILING HT
2001	11	16	1	SKY COVER
2001	11	16	7	CEILING HT
2001	11	16	7	SKY COVER
2001	11	16	13	CEILING HT
2001	11	16	13	SKY COVER
2001	11	16	19	CEILING HT
2001	11	16	19	SKY COVER
2001	11	17	1	CEILING HT

2001	11	17	1	SKY COVER
2001	11	17	7	CEILING HT
2001	11	17	7	SKY COVER
2001	11	17	19	CEILING HT
2001	11	17	19	SKY COVER
2001	11	18	7	CEILING HT
2001	11	18	7	SKY COVER
2001	11	18	13	SKY COVER
2001	11	18	19	SKY COVER
2001	11	19	1	SKY COVER
2001	11	19	7	CEILING HT
2001	11	19	7	SKY COVER
2001	11	19	13	CEILING HT
2001	11	19	13	SKY COVER
2001	11	19	19	CEILING HT
2001	11	19	19	SKY COVER
2001	11	20	1	CEILING HT
2001	11	20	1	SKY COVER
2001	11	20	7	CEILING HT
2001	11	20	7	SKY COVER
2001	11	20	13	CEILING HT
2001	11	20	13	SKY COVER
2001	11	20	19	CEILING HT
2001	11	20	19	SKY COVER
2001	11	21	1	CEILING HT
2001	11	21	1	SKY COVER
2001	11	21	7	CEILING HT
2001	11	21	7	SKY COVER
2001	11	21	13	CEILING HT
2001	11	21	13	SKY COVER
2001	11	21	19	CEILING HT
2001	11	21	19	SKY COVER
2001	11	22	1	CEILING HT
2001	11	22	1	SKY COVER
2001	11	22	7	CEILING HT
2001	11	22	7	SKY COVER
2001	11	22	13	CEILING HT
2001	11	22	13	SKY COVER
2001	11	22	19	SKY COVER
2001	11	23	1	CEILING HT
2001	11	23	1	SKY COVER
2001	11	23	7	CEILING HT
2001	11	23	7	SKY COVER
2001	11	23	13	SKY COVER
2001	11	23	19	SKY COVER
2001	11	24	1	SKY COVER
2001	11	24	7	SKY COVER
2001	11	24	13	SKY COVER
2001	11	24	19	SKY COVER
2001	11	25	1	CEILING HT
2001	11	25	1	SKY COVER
2001	11	25	7	SKY COVER
2001	11	25	13	CEILING HT
2001	11	25	13	SKY COVER
2001	11	26	1	SKY COVER
2001	11	26	7	SKY COVER
2001	11	26	13	SKY COVER
2001	11	26	19	SKY COVER
2001	11	26	22	CEILING HT

2001	11	26	22	SKY COVER
2001	11	27	1	SKY COVER
2001	11	27	7	SKY COVER
2001	11	27	13	SKY COVER
2001	11	27	15	CEILING HT
2001	11	27	15	SKY COVER
2001	11	27	19	SKY COVER
2001	11	28	1	SKY COVER
2001	11	28	7	SKY COVER
2001	11	28	13	CEILING HT
2001	11	28	13	SKY COVER
2001	11	28	19	CEILING HT
2001	11	28	19	SKY COVER
2001	11	29	1	CEILING HT
2001	11	29	1	SKY COVER
2001	11	29	7	CEILING HT
2001	11	29	7	SKY COVER
2001	11	29	13	CEILING HT
2001	11	29	13	SKY COVER
2001	11	29	19	CEILING HT
2001	11	29	19	SKY COVER
2001	11	30	1	CEILING HT
2001	11	30	1	SKY COVER
2001	11	30	7	SKY COVER
2001	11	30	13	CEILING HT
2001	11	30	13	SKY COVER
2001	11	30	19	CEILING HT
2001	11	30	19	SKY COVER
2001	12	1	7	CEILING HT
2001	12	1	7	SKY COVER
2001	12	1	13	CEILING HT
2001	12	1	13	SKY COVER
2001	12	1	19	CEILING HT
2001	12	1	19	SKY COVER
2001	12	2	1	CEILING HT
2001	12	2	1	SKY COVER
2001	12	2	7	CEILING HT
2001	12	2	7	SKY COVER
2001	12	2	13	CEILING HT
2001	12	2	13	SKY COVER
2001	12	2	19	CEILING HT
2001	12	2	19	SKY COVER
2001	12	3	1	CEILING HT
2001	12	3	1	SKY COVER
2001	12	3	13	CEILING HT
2001	12	3	13	SKY COVER
2001	12	4	1	CEILING HT
2001	12	4	1	SKY COVER
2001	12	4	7	CEILING HT
2001	12	4	7	SKY COVER
2001	12	4	13	CEILING HT
2001	12	4	13	SKY COVER
2001	12	4	19	CEILING HT
2001	12	4	19	SKY COVER
2001	12	5	1	SKY COVER
2001	12	5	7	SKY COVER
2001	12	5	13	CEILING HT
2001	12	5	13	SKY COVER
2001	12	5	19	CEILING HT

2001	12	5	19	SKY COVER
2001	12	6	1	CEILING HT
2001	12	6	1	SKY COVER
2001	12	6	7	CEILING HT
2001	12	6	7	SKY COVER
2001	12	6	13	CEILING HT
2001	12	6	13	SKY COVER
2001	12	6	19	CEILING HT
2001	12	6	19	SKY COVER
2001	12	7	1	SKY COVER
2001	12	7	7	CEILING HT
2001	12	7	7	SKY COVER
2001	12	7	13	CEILING HT
2001	12	7	13	SKY COVER
2001	12	7	19	CEILING HT
2001	12	7	19	SKY COVER
2001	12	8	7	CEILING HT
2001	12	8	7	SKY COVER
2001	12	8	13	CEILING HT
2001	12	8	13	SKY COVER
2001	12	9	7	CEILING HT
2001	12	9	7	SKY COVER
2001	12	9	13	CEILING HT
2001	12	9	13	SKY COVER
2001	12	9	19	CEILING HT
2001	12	9	19	SKY COVER
2001	12	10	7	CEILING HT
2001	12	10	7	SKY COVER
2001	12	10	13	CEILING HT
2001	12	10	13	SKY COVER
2001	12	10	19	CEILING HT
2001	12	10	19	SKY COVER
2001	12	11	1	CEILING HT
2001	12	11	1	SKY COVER
2001	12	11	7	CEILING HT
2001	12	11	7	SKY COVER
2001	12	11	13	SKY COVER
2001	12	11	19	SKY COVER
2001	12	11	22	CEILING HT
2001	12	11	22	SKY COVER
2001	12	12	1	SKY COVER
2001	12	12	7	SKY COVER
2001	12	12	13	SKY COVER
2001	12	12	19	CEILING HT
2001	12	12	19	SKY COVER
2001	12	13	1	CEILING HT
2001	12	13	1	SKY COVER
2001	12	13	7	CEILING HT
2001	12	13	7	SKY COVER
2001	12	13	13	CEILING HT
2001	12	13	13	SKY COVER
2001	12	13	19	CEILING HT
2001	12	13	19	SKY COVER
2001	12	14	1	CEILING HT
2001	12	14	1	SKY COVER
2001	12	14	7	CEILING HT
2001	12	14	7	SKY COVER
2001	12	14	13	CEILING HT
2001	12	14	13	SKY COVER

2001	12	14	19	CEILING HT
2001	12	14	19	SKY COVER
2001	12	15	1	CEILING HT
2001	12	15	1	SKY COVER
2001	12	15	7	CEILING HT
2001	12	15	7	SKY COVER
2001	12	15	13	CEILING HT
2001	12	15	13	SKY COVER
2001	12	15	19	SKY COVER
2001	12	16	1	SKY COVER
2001	12	16	7	CEILING HT
2001	12	16	7	SKY COVER
2001	12	16	13	CEILING HT
2001	12	16	13	SKY COVER
2001	12	16	19	CEILING HT
2001	12	16	19	SKY COVER
2001	12	17	1	CEILING HT
2001	12	17	1	SKY COVER
2001	12	17	7	CEILING HT
2001	12	17	7	SKY COVER
2001	12	17	13	CEILING HT
2001	12	17	13	SKY COVER
2001	12	17	19	CEILING HT
2001	12	17	19	SKY COVER
2001	12	18	1	CEILING HT
2001	12	18	1	SKY COVER
2001	12	18	7	SKY COVER
2001	12	18	13	SKY COVER
2001	12	18	15	CEILING HT
2001	12	18	15	SKY COVER
2001	12	18	17	CEILING HT
2001	12	18	17	SKY COVER
2001	12	18	19	SKY COVER
2001	12	19	1	CEILING HT
2001	12	19	1	SKY COVER
2001	12	19	7	CEILING HT
2001	12	19	7	SKY COVER
2001	12	19	13	CEILING HT
2001	12	19	13	SKY COVER
2001	12	19	19	CEILING HT
2001	12	19	19	SKY COVER
2001	12	20	1	CEILING HT
2001	12	20	1	SKY COVER
2001	12	20	7	CEILING HT
2001	12	20	7	SKY COVER
2001	12	20	13	CEILING HT
2001	12	20	13	SKY COVER
2001	12	20	19	CEILING HT
2001	12	20	19	SKY COVER
2001	12	21	1	CEILING HT
2001	12	21	1	SKY COVER
2001	12	21	7	CEILING HT
2001	12	21	7	SKY COVER
2001	12	21	13	CEILING HT
2001	12	21	13	SKY COVER
2001	12	21	15	CEILING HT
2001	12	21	15	SKY COVER
2001	12	21	19	CEILING HT
2001	12	21	19	SKY COVER

2001	12	22	1	CEILING HT
2001	12	22	1	SKY COVER
2001	12	22	7	SKY COVER
2001	12	22	13	SKY COVER
2001	12	22	19	SKY COVER
2001	12	23	1	CEILING HT
2001	12	23	1	SKY COVER
2001	12	23	7	SKY COVER
2001	12	23	13	CEILING HT
2001	12	23	13	SKY COVER
2001	12	23	19	CEILING HT
2001	12	23	19	SKY COVER
2001	12	24	1	CEILING HT
2001	12	24	1	SKY COVER
2001	12	24	7	CEILING HT
2001	12	24	7	SKY COVER
2001	12	24	13	CEILING HT
2001	12	24	13	SKY COVER
2001	12	24	19	CEILING HT
2001	12	24	19	SKY COVER
2001	12	25	1	CEILING HT
2001	12	25	1	SKY COVER
2001	12	25	7	CEILING HT
2001	12	25	7	SKY COVER
2001	12	25	13	CEILING HT
2001	12	25	13	SKY COVER
2001	12	25	19	CEILING HT
2001	12	25	19	SKY COVER
2001	12	26	1	CEILING HT
2001	12	26	1	SKY COVER
2001	12	26	7	SKY COVER
2001	12	26	13	CEILING HT
2001	12	26	13	SKY COVER
2001	12	26	19	CEILING HT
2001	12	26	19	SKY COVER
2001	12	27	1	CEILING HT
2001	12	27	1	SKY COVER
2001	12	27	7	CEILING HT
2001	12	27	7	SKY COVER
2001	12	27	13	CEILING HT
2001	12	27	13	SKY COVER
2001	12	27	19	CEILING HT
2001	12	27	19	SKY COVER
2001	12	28	1	CEILING HT
2001	12	28	1	SKY COVER
2001	12	28	7	CEILING HT
2001	12	28	7	SKY COVER
2001	12	28	13	CEILING HT
2001	12	28	13	SKY COVER
2001	12	28	19	CEILING HT
2001	12	28	19	SKY COVER
2001	12	29	1	SKY COVER
2001	12	29	7	CEILING HT
2001	12	29	7	SKY COVER
2001	12	29	13	SKY COVER
2001	12	29	19	SKY COVER
2001	12	30	1	SKY COVER
2001	12	30	7	SKY COVER
2001	12	30	13	CEILING HT

2001	12	30	13	SKY COVER
2001	12	30	19	CEILING HT
2001	12	30	19	SKY COVER
2001	12	31	7	SKY COVER
2001	12	31	13	CEILING HT
2001	12	31	13	SKY COVER
2001	12	31	19	SKY COVER
2001	12	31	22	CEILING HT
2001	12	31	22	SKY COVER
2002	1	1	2	CEILING HT
2002	1	1	2	SKY COVER
2002	1	1	7	SKY COVER
2002	1	1	19	CEILING HT
2002	1	1	19	SKY COVER
2002	1	2	1	CEILING HT
2002	1	2	1	SKY COVER
2002	1	2	7	CEILING HT
2002	1	2	7	SKY COVER
2002	1	2	13	CEILING HT
2002	1	2	13	SKY COVER
2002	1	2	19	CEILING HT
2002	1	2	19	SKY COVER
2002	1	3	1	CEILING HT
2002	1	3	1	SKY COVER
2002	1	3	7	CEILING HT
2002	1	3	7	SKY COVER
2002	1	3	13	CEILING HT
2002	1	3	13	SKY COVER
2002	1	3	19	CEILING HT
2002	1	3	19	SKY COVER
2002	1	4	1	CEILING HT
2002	1	4	1	SKY COVER
2002	1	4	7	CEILING HT
2002	1	4	7	SKY COVER
2002	1	4	13	SKY COVER
2002	1	4	19	SKY COVER
2002	1	5	1	CEILING HT
2002	1	5	1	SKY COVER
2002	1	5	7	SKY COVER
2002	1	5	13	CEILING HT
2002	1	5	13	SKY COVER
2002	1	5	19	CEILING HT
2002	1	5	19	SKY COVER
2002	1	6	1	SKY COVER
2002	1	6	7	SKY COVER
2002	1	6	13	CEILING HT
2002	1	6	13	SKY COVER
2002	1	6	19	CEILING HT
2002	1	6	19	SKY COVER
2002	1	7	1	CEILING HT
2002	1	7	1	SKY COVER
2002	1	7	7	CEILING HT
2002	1	7	7	SKY COVER
2002	1	7	13	CEILING HT
2002	1	7	13	SKY COVER
2002	1	7	19	CEILING HT
2002	1	7	19	SKY COVER
2002	1	8	1	CEILING HT
2002	1	8	1	SKY COVER

2002	1	8	7	CEILING HT
2002	1	8	7	SKY COVER
2002	1	8	13	CEILING HT
2002	1	8	13	SKY COVER
2002	1	8	19	CEILING HT
2002	1	8	19	SKY COVER
2002	1	9	1	CEILING HT
2002	1	9	1	SKY COVER
2002	1	9	7	CEILING HT
2002	1	9	7	SKY COVER
2002	1	9	13	CEILING HT
2002	1	9	13	SKY COVER
2002	1	9	19	SKY COVER
2002	1	10	1	CEILING HT
2002	1	10	1	SKY COVER
2002	1	10	7	CEILING HT
2002	1	10	7	SKY COVER
2002	1	10	13	CEILING HT
2002	1	10	13	SKY COVER
2002	1	10	19	CEILING HT
2002	1	10	19	SKY COVER
2002	1	11	1	CEILING HT
2002	1	11	1	SKY COVER
2002	1	11	7	CEILING HT
2002	1	11	7	SKY COVER
2002	1	11	13	SKY COVER
2002	1	11	19	CEILING HT
2002	1	11	19	SKY COVER
2002	1	12	1	CEILING HT
2002	1	12	1	SKY COVER
2002	1	12	7	CEILING HT
2002	1	12	7	SKY COVER
2002	1	12	13	CEILING HT
2002	1	12	13	SKY COVER
2002	1	12	19	CEILING HT
2002	1	12	19	SKY COVER
2002	1	13	1	CEILING HT
2002	1	13	1	SKY COVER
2002	1	13	7	CEILING HT
2002	1	13	7	SKY COVER
2002	1	13	13	CEILING HT
2002	1	13	13	SKY COVER
2002	1	13	19	CEILING HT
2002	1	13	19	SKY COVER
2002	1	14	1	SKY COVER
2002	1	14	7	SKY COVER
2002	1	14	13	SKY COVER
2002	1	14	19	CEILING HT
2002	1	14	19	SKY COVER
2002	1	15	1	SKY COVER
2002	1	15	7	SKY COVER
2002	1	15	13	CEILING HT
2002	1	15	13	SKY COVER
2002	1	15	19	SKY COVER
2002	1	16	2	CEILING HT
2002	1	16	2	SKY COVER
2002	1	16	7	SKY COVER
2002	1	16	13	CEILING HT
2002	1	16	13	SKY COVER

2002	1	16	19	CEILING HT
2002	1	16	19	SKY COVER
2002	1	17	1	CEILING HT
2002	1	17	1	SKY COVER
2002	1	17	7	CEILING HT
2002	1	17	7	SKY COVER
2002	1	17	13	SKY COVER
2002	1	17	19	SKY COVER
2002	1	18	1	SKY COVER
2002	1	18	7	CEILING HT
2002	1	18	7	SKY COVER
2002	1	18	13	CEILING HT
2002	1	18	13	SKY COVER
2002	1	18	19	CEILING HT
2002	1	18	19	SKY COVER
2002	1	19	1	CEILING HT
2002	1	19	1	SKY COVER
2002	1	19	7	CEILING HT
2002	1	19	7	SKY COVER
2002	1	19	13	CEILING HT
2002	1	19	13	SKY COVER
2002	1	19	19	CEILING HT
2002	1	19	19	SKY COVER
2002	1	20	1	SKY COVER
2002	1	20	7	CEILING HT
2002	1	20	7	SKY COVER
2002	1	20	13	CEILING HT
2002	1	20	13	SKY COVER
2002	1	20	19	CEILING HT
2002	1	20	19	SKY COVER
2002	1	21	1	CEILING HT
2002	1	21	1	SKY COVER
2002	1	21	7	CEILING HT
2002	1	21	7	SKY COVER
2002	1	21	13	CEILING HT
2002	1	21	13	SKY COVER
2002	1	21	19	CEILING HT
2002	1	21	19	SKY COVER
2002	1	22	1	CEILING HT
2002	1	22	1	SKY COVER
2002	1	22	7	CEILING HT
2002	1	22	7	SKY COVER
2002	1	22	13	SKY COVER
2002	1	22	19	CEILING HT
2002	1	22	19	SKY COVER
2002	1	23	1	CEILING HT
2002	1	23	1	SKY COVER
2002	1	23	7	CEILING HT
2002	1	23	7	SKY COVER
2002	1	23	13	CEILING HT
2002	1	23	13	SKY COVER
2002	1	23	19	CEILING HT
2002	1	23	19	SKY COVER
2002	1	24	1	CEILING HT
2002	1	24	1	SKY COVER
2002	1	24	7	CEILING HT
2002	1	24	7	SKY COVER
2002	1	24	13	CEILING HT
2002	1	24	13	SKY COVER

2002	1	24	19	CEILING HT
2002	1	24	19	SKY COVER
2002	1	25	1	CEILING HT
2002	1	25	1	SKY COVER
2002	1	25	7	CEILING HT
2002	1	25	7	SKY COVER
2002	1	25	13	CEILING HT
2002	1	25	13	SKY COVER
2002	1	25	19	CEILING HT
2002	1	25	19	SKY COVER
2002	1	26	1	CEILING HT
2002	1	26	1	SKY COVER
2002	1	26	7	CEILING HT
2002	1	26	7	SKY COVER
2002	1	26	13	CEILING HT
2002	1	26	13	SKY COVER
2002	1	26	19	CEILING HT
2002	1	26	19	SKY COVER
2002	1	27	1	CEILING HT
2002	1	27	1	SKY COVER
2002	1	27	7	CEILING HT
2002	1	27	7	SKY COVER
2002	1	27	13	CEILING HT
2002	1	27	13	SKY COVER
2002	1	27	19	CEILING HT
2002	1	27	19	SKY COVER
2002	1	27	22	CEILING HT
2002	1	27	22	SKY COVER
2002	1	28	7	CEILING HT
2002	1	28	7	SKY COVER
2002	1	28	13	SKY COVER
2002	1	28	18	CEILING HT
2002	1	28	19	SKY COVER
2002	1	28	24	CEILING HT
2002	1	29	1	SKY COVER
2002	1	29	7	SKY COVER
2002	1	29	13	CEILING HT
2002	1	29	13	SKY COVER
2002	1	29	19	CEILING HT
2002	1	29	19	SKY COVER
2002	1	30	1	CEILING HT
2002	1	30	1	SKY COVER
2002	1	30	7	CEILING HT
2002	1	30	7	SKY COVER
2002	1	30	13	CEILING HT
2002	1	30	13	SKY COVER
2002	1	30	19	CEILING HT
2002	1	30	19	SKY COVER
2002	1	31	1	CEILING HT
2002	1	31	1	SKY COVER
2002	1	31	7	CEILING HT
2002	1	31	7	SKY COVER
2002	1	31	13	CEILING HT
2002	1	31	13	SKY COVER
2002	1	31	19	SKY COVER
2002	2	1	1	CEILING HT
2002	2	1	1	SKY COVER
2002	2	1	7	CEILING HT
2002	2	1	7	SKY COVER

2002	2	1	13	CEILING HT
2002	2	1	13	SKY COVER
2002	2	1	19	CEILING HT
2002	2	1	19	SKY COVER
2002	2	2	1	CEILING HT
2002	2	2	1	SKY COVER
2002	2	2	7	CEILING HT
2002	2	2	7	SKY COVER
2002	2	2	13	CEILING HT
2002	2	2	13	SKY COVER
2002	2	2	19	CEILING HT
2002	2	2	19	SKY COVER
2002	2	3	1	CEILING HT
2002	2	3	1	SKY COVER
2002	2	3	7	CEILING HT
2002	2	3	7	SKY COVER
2002	2	3	13	CEILING HT
2002	2	3	13	SKY COVER
2002	2	3	19	CEILING HT
2002	2	3	19	SKY COVER
2002	2	4	1	CEILING HT
2002	2	4	1	SKY COVER
2002	2	4	7	CEILING HT
2002	2	4	7	SKY COVER
2002	2	4	13	CEILING HT
2002	2	4	13	SKY COVER
2002	2	4	19	SKY COVER
2002	2	5	1	CEILING HT
2002	2	5	1	SKY COVER
2002	2	5	7	CEILING HT
2002	2	5	7	SKY COVER
2002	2	5	13	CEILING HT
2002	2	5	13	SKY COVER
2002	2	5	19	CEILING HT
2002	2	5	19	SKY COVER
2002	2	6	1	CEILING HT
2002	2	6	1	SKY COVER
2002	2	6	7	CEILING HT
2002	2	6	7	SKY COVER
2002	2	6	13	CEILING HT
2002	2	6	13	SKY COVER
2002	2	6	19	CEILING HT
2002	2	6	19	SKY COVER
2002	2	7	1	CEILING HT
2002	2	7	1	SKY COVER
2002	2	7	7	CEILING HT
2002	2	7	7	SKY COVER
2002	2	7	13	CEILING HT
2002	2	7	13	SKY COVER
2002	2	7	19	CEILING HT
2002	2	7	19	SKY COVER
2002	2	8	1	CEILING HT
2002	2	8	1	SKY COVER
2002	2	8	13	CEILING HT
2002	2	8	13	SKY COVER
2002	2	8	19	CEILING HT
2002	2	8	19	SKY COVER
2002	2	9	1	CEILING HT
2002	2	9	1	SKY COVER

2002	2	9	7	SKY COVER
2002	2	9	13	SKY COVER
2002	2	9	19	SKY COVER
2002	2	10	1	CEILING HT
2002	2	10	1	SKY COVER
2002	2	10	7	CEILING HT
2002	2	10	7	SKY COVER
2002	2	10	13	CEILING HT
2002	2	10	13	SKY COVER
2002	2	10	19	CEILING HT
2002	2	10	19	SKY COVER
2002	2	11	1	CEILING HT
2002	2	11	1	SKY COVER
2002	2	11	7	CEILING HT
2002	2	11	7	SKY COVER
2002	2	11	13	CEILING HT
2002	2	11	13	SKY COVER
2002	2	11	19	CEILING HT
2002	2	11	19	SKY COVER
2002	2	12	1	CEILING HT
2002	2	12	1	SKY COVER
2002	2	12	7	SKY COVER
2002	2	12	13	SKY COVER
2002	2	12	19	SKY COVER
2002	2	13	1	CEILING HT
2002	2	13	1	SKY COVER
2002	2	13	7	CEILING HT
2002	2	13	7	SKY COVER
2002	2	13	13	CEILING HT
2002	2	13	13	SKY COVER
2002	2	13	19	CEILING HT
2002	2	13	19	SKY COVER
2002	2	14	1	CEILING HT
2002	2	14	1	SKY COVER
2002	2	14	7	CEILING HT
2002	2	14	7	SKY COVER
2002	2	14	13	SKY COVER
2002	2	14	20	CEILING HT
2002	2	14	20	SKY COVER
2002	2	15	1	CEILING HT
2002	2	15	1	SKY COVER
2002	2	15	7	CEILING HT
2002	2	15	7	SKY COVER
2002	2	15	13	CEILING HT
2002	2	15	13	SKY COVER
2002	2	15	19	CEILING HT
2002	2	15	19	SKY COVER
2002	2	16	1	CEILING HT
2002	2	16	1	SKY COVER
2002	2	16	7	CEILING HT
2002	2	16	7	SKY COVER
2002	2	16	19	CEILING HT
2002	2	16	19	SKY COVER
2002	2	17	1	CEILING HT
2002	2	17	1	SKY COVER
2002	2	17	7	CEILING HT
2002	2	17	7	SKY COVER
2002	2	17	13	CEILING HT
2002	2	17	13	SKY COVER

2002	2	17	19	CEILING HT
2002	2	17	19	SKY COVER
2002	2	18	1	CEILING HT
2002	2	18	1	SKY COVER
2002	2	18	7	CEILING HT
2002	2	18	7	SKY COVER
2002	2	18	13	CEILING HT
2002	2	18	13	SKY COVER
2002	2	18	19	CEILING HT
2002	2	18	19	SKY COVER
2002	2	19	1	SKY COVER
2002	2	19	7	SKY COVER
2002	2	19	13	SKY COVER
2002	2	19	15	CEILING HT
2002	2	19	15	SKY COVER
2002	2	19	19	CEILING HT
2002	2	19	19	SKY COVER
2002	2	20	1	CEILING HT
2002	2	20	1	SKY COVER
2002	2	20	7	SKY COVER
2002	2	20	13	SKY COVER
2002	2	20	19	CEILING HT
2002	2	20	19	SKY COVER
2002	2	21	1	SKY COVER
2002	2	21	7	CEILING HT
2002	2	21	7	SKY COVER
2002	2	21	13	CEILING HT
2002	2	21	13	SKY COVER
2002	2	21	19	CEILING HT
2002	2	21	19	SKY COVER
2002	2	22	1	CEILING HT
2002	2	22	1	SKY COVER
2002	2	22	13	CEILING HT
2002	2	22	13	SKY COVER
2002	2	22	19	CEILING HT
2002	2	22	19	SKY COVER
2002	2	23	1	CEILING HT
2002	2	23	1	SKY COVER
2002	2	23	7	CEILING HT
2002	2	23	7	SKY COVER
2002	2	23	13	CEILING HT
2002	2	23	13	SKY COVER
2002	2	23	19	CEILING HT
2002	2	23	19	SKY COVER
2002	2	24	1	CEILING HT
2002	2	24	1	SKY COVER
2002	2	24	7	SKY COVER
2002	2	24	13	SKY COVER
2002	2	24	19	SKY COVER
2002	2	24	24	CEILING HT
2002	2	25	1	SKY COVER
2002	2	25	7	SKY COVER
2002	2	25	13	SKY COVER
2002	2	25	19	CEILING HT
2002	2	25	19	SKY COVER
2002	2	26	1	CEILING HT
2002	2	26	1	SKY COVER
2002	2	26	7	SKY COVER
2002	2	26	13	CEILING HT

2002	2	26	13	SKY COVER
2002	2	26	19	CEILING HT
2002	2	26	19	SKY COVER
2002	2	27	1	CEILING HT
2002	2	27	1	SKY COVER
2002	2	27	7	SKY COVER
2002	2	27	13	SKY COVER
2002	2	27	19	CEILING HT
2002	2	27	19	SKY COVER
2002	2	28	1	CEILING HT
2002	2	28	1	SKY COVER
2002	2	28	7	CEILING HT
2002	2	28	7	SKY COVER
2002	2	28	13	SKY COVER
2002	2	28	17	CEILING HT
2002	2	28	17	SKY COVER
2002	2	28	20	CEILING HT
2002	2	28	20	SKY COVER
2002	3	1	1	SKY COVER
2002	3	1	7	SKY COVER
2002	3	1	13	SKY COVER
2002	3	1	19	SKY COVER
2002	3	2	1	CEILING HT
2002	3	2	1	SKY COVER
2002	3	2	7	SKY COVER
2002	3	2	13	SKY COVER
2002	3	2	19	CEILING HT
2002	3	2	19	SKY COVER
2002	3	3	1	CEILING HT
2002	3	3	1	SKY COVER
2002	3	3	7	CEILING HT
2002	3	3	7	SKY COVER
2002	3	3	13	SKY COVER
2002	3	3	19	CEILING HT
2002	3	3	19	SKY COVER
2002	3	4	1	CEILING HT
2002	3	4	1	SKY COVER
2002	3	4	7	SKY COVER
2002	3	4	13	CEILING HT
2002	3	4	13	SKY COVER
2002	3	4	19	CEILING HT
2002	3	4	19	SKY COVER
2002	3	5	1	CEILING HT
2002	3	5	1	SKY COVER
2002	3	5	7	CEILING HT
2002	3	5	7	SKY COVER
2002	3	5	13	CEILING HT
2002	3	5	13	SKY COVER
2002	3	5	19	CEILING HT
2002	3	5	19	SKY COVER
2002	3	6	1	CEILING HT
2002	3	6	1	SKY COVER
2002	3	6	7	CEILING HT
2002	3	6	7	SKY COVER
2002	3	6	13	SKY COVER
2002	3	6	19	SKY COVER
2002	3	7	1	CEILING HT
2002	3	7	1	SKY COVER
2002	3	7	7	CEILING HT

2002	3	7	7	SKY COVER
2002	3	7	13	CEILING HT
2002	3	7	13	SKY COVER
2002	3	7	19	CEILING HT
2002	3	7	19	SKY COVER
2002	3	8	1	CEILING HT
2002	3	8	1	SKY COVER
2002	3	8	7	SKY COVER
2002	3	8	13	SKY COVER
2002	3	8	19	SKY COVER
2002	3	9	1	CEILING HT
2002	3	9	1	SKY COVER
2002	3	9	7	CEILING HT
2002	3	9	7	SKY COVER
2002	3	9	13	CEILING HT
2002	3	9	13	SKY COVER
2002	3	9	19	CEILING HT
2002	3	9	19	SKY COVER
2002	3	10	1	CEILING HT
2002	3	10	1	SKY COVER
2002	3	10	7	CEILING HT
2002	3	10	7	SKY COVER
2002	3	10	13	CEILING HT
2002	3	10	13	SKY COVER
2002	3	11	1	CEILING HT
2002	3	11	1	SKY COVER
2002	3	11	7	SKY COVER
2002	3	11	13	CEILING HT
2002	3	11	13	SKY COVER
2002	3	11	19	CEILING HT
2002	3	11	19	SKY COVER
2002	3	12	1	CEILING HT
2002	3	12	1	SKY COVER
2002	3	12	7	CEILING HT
2002	3	12	7	SKY COVER
2002	3	12	13	CEILING HT
2002	3	12	13	SKY COVER
2002	3	12	19	CEILING HT
2002	3	12	19	SKY COVER
2002	3	13	1	CEILING HT
2002	3	13	1	SKY COVER
2002	3	13	7	SKY COVER
2002	3	13	10	CEILING HT
2002	3	13	10	SKY COVER
2002	3	13	13	SKY COVER
2002	3	13	15	CEILING HT
2002	3	13	15	SKY COVER
2002	3	13	19	SKY COVER
2002	3	14	2	CEILING HT
2002	3	14	2	SKY COVER
2002	3	14	7	SKY COVER
2002	3	14	13	SKY COVER
2002	3	14	19	SKY COVER
2002	3	15	1	SKY COVER
2002	3	15	7	SKY COVER
2002	3	15	14	CEILING HT
2002	3	15	14	SKY COVER
2002	3	15	19	CEILING HT
2002	3	15	19	SKY COVER

2002	3	16	1	CEILING HT
2002	3	16	1	SKY COVER
2002	3	16	7	CEILING HT
2002	3	16	7	SKY COVER
2002	3	16	13	CEILING HT
2002	3	16	13	SKY COVER
2002	3	16	19	CEILING HT
2002	3	16	19	SKY COVER
2002	3	17	1	CEILING HT
2002	3	17	1	SKY COVER
2002	3	17	7	CEILING HT
2002	3	17	7	SKY COVER
2002	3	17	19	SKY COVER
2002	3	17	23	CEILING HT
2002	3	17	23	SKY COVER
2002	3	18	1	SKY COVER
2002	3	18	7	SKY COVER
2002	3	18	13	SKY COVER
2002	3	18	16	CEILING HT
2002	3	18	16	SKY COVER
2002	3	18	19	CEILING HT
2002	3	18	19	SKY COVER
2002	3	19	1	CEILING HT
2002	3	19	1	SKY COVER
2002	3	19	7	CEILING HT
2002	3	19	7	SKY COVER
2002	3	19	13	CEILING HT
2002	3	19	13	SKY COVER
2002	3	19	19	CEILING HT
2002	3	19	19	SKY COVER
2002	3	20	1	CEILING HT
2002	3	20	1	SKY COVER
2002	3	20	7	CEILING HT
2002	3	20	7	SKY COVER
2002	3	20	13	CEILING HT
2002	3	20	13	SKY COVER
2002	3	20	19	CEILING HT
2002	3	20	19	SKY COVER
2002	3	21	1	SKY COVER
2002	3	21	7	SKY COVER
2002	3	21	13	SKY COVER
2002	3	21	19	SKY COVER
2002	3	22	1	CEILING HT
2002	3	22	1	SKY COVER
2002	3	22	7	CEILING HT
2002	3	22	7	SKY COVER
2002	3	22	13	CEILING HT
2002	3	22	13	SKY COVER
2002	3	23	1	CEILING HT
2002	3	23	1	SKY COVER
2002	3	23	7	CEILING HT
2002	3	23	7	SKY COVER
2002	3	23	13	CEILING HT
2002	3	23	13	SKY COVER
2002	3	23	19	CEILING HT
2002	3	23	19	SKY COVER
2002	3	24	1	SKY COVER
2002	3	24	8	CEILING HT
2002	3	24	8	SKY COVER

2002	3	24	13	SKY COVER
2002	3	24	19	SKY COVER
2002	3	25	1	CEILING HT
2002	3	25	1	SKY COVER
2002	3	25	7	SKY COVER
2002	3	25	13	SKY COVER
2002	3	25	19	SKY COVER
2002	3	26	1	CEILING HT
2002	3	26	1	SKY COVER
2002	3	26	7	SKY COVER
2002	3	26	13	CEILING HT
2002	3	26	13	SKY COVER
2002	3	26	19	CEILING HT
2002	3	26	19	SKY COVER
2002	3	27	1	CEILING HT
2002	3	27	1	SKY COVER
2002	3	27	7	CEILING HT
2002	3	27	7	SKY COVER
2002	3	27	13	CEILING HT
2002	3	27	13	SKY COVER
2002	3	27	19	CEILING HT
2002	3	27	19	SKY COVER
2002	3	28	1	CEILING HT
2002	3	28	1	SKY COVER
2002	3	28	7	CEILING HT
2002	3	28	7	SKY COVER
2002	3	28	13	CEILING HT
2002	3	28	13	SKY COVER
2002	3	28	19	CEILING HT
2002	3	28	19	SKY COVER
2002	3	29	1	SKY COVER
2002	3	29	3	CEILING HT
2002	3	29	3	SKY COVER
2002	3	29	7	SKY COVER
2002	3	29	13	SKY COVER
2002	3	29	19	SKY COVER
2002	3	30	1	CEILING HT
2002	3	30	1	SKY COVER
2002	3	30	7	SKY COVER
2002	3	30	13	CEILING HT
2002	3	30	13	SKY COVER
2002	3	30	19	SKY COVER
2002	3	31	1	CEILING HT
2002	3	31	1	SKY COVER
2002	3	31	7	SKY COVER
2002	3	31	13	SKY COVER
2002	3	31	19	CEILING HT
2002	3	31	19	SKY COVER
2002	4	1	1	CEILING HT
2002	4	1	1	SKY COVER
2002	4	1	7	CEILING HT
2002	4	1	7	SKY COVER
2002	4	1	19	CEILING HT
2002	4	1	19	SKY COVER
2002	4	2	1	SKY COVER
2002	4	2	7	SKY COVER
2002	4	2	13	SKY COVER
2002	4	2	19	SKY COVER
2002	4	3	1	CEILING HT

2002	4	3	1	SKY COVER
2002	4	3	7	CEILING HT
2002	4	3	7	SKY COVER
2002	4	3	13	CEILING HT
2002	4	3	13	SKY COVER
2002	4	3	19	CEILING HT
2002	4	3	19	SKY COVER
2002	4	4	1	CEILING HT
2002	4	4	1	SKY COVER
2002	4	4	7	CEILING HT
2002	4	4	7	SKY COVER
2002	4	4	13	CEILING HT
2002	4	4	13	SKY COVER
2002	4	4	19	CEILING HT
2002	4	4	19	SKY COVER
2002	4	5	1	CEILING HT
2002	4	5	1	SKY COVER
2002	4	5	7	CEILING HT
2002	4	5	7	SKY COVER
2002	4	5	13	CEILING HT
2002	4	5	13	SKY COVER
2002	4	5	19	CEILING HT
2002	4	5	19	SKY COVER
2002	4	6	1	CEILING HT
2002	4	6	1	SKY COVER
2002	4	6	7	CEILING HT
2002	4	6	7	SKY COVER
2002	4	6	13	CEILING HT
2002	4	6	13	SKY COVER
2002	4	6	19	CEILING HT
2002	4	6	19	SKY COVER
2002	4	7	1	SKY COVER
2002	4	7	7	SKY COVER
2002	4	7	13	CEILING HT
2002	4	7	13	SKY COVER
2002	4	7	19	CEILING HT
2002	4	7	19	SKY COVER
2002	4	8	1	CEILING HT
2002	4	8	1	SKY COVER
2002	4	8	7	SKY COVER
2002	4	8	13	SKY COVER
2002	4	8	17	CEILING HT
2002	4	8	17	SKY COVER
2002	4	8	19	SKY COVER
2002	4	9	1	CEILING HT
2002	4	9	1	SKY COVER
2002	4	9	7	CEILING HT
2002	4	9	7	SKY COVER
2002	4	9	19	CEILING HT
2002	4	9	19	SKY COVER
2002	4	10	1	SKY COVER
2002	4	10	7	SKY COVER
2002	4	10	13	CEILING HT
2002	4	10	13	SKY COVER
2002	4	10	19	CEILING HT
2002	4	10	19	SKY COVER
2002	4	11	1	CEILING HT
2002	4	11	1	SKY COVER
2002	4	11	13	SKY COVER

2002	4	11	19	SKY COVER
2002	4	12	1	CEILING HT
2002	4	12	1	SKY COVER
2002	4	12	7	CEILING HT
2002	4	12	7	SKY COVER
2002	4	12	13	CEILING HT
2002	4	12	13	SKY COVER
2002	4	12	19	CEILING HT
2002	4	12	19	SKY COVER
2002	4	13	1	SKY COVER
2002	4	13	7	CEILING HT
2002	4	13	7	SKY COVER
2002	4	13	13	CEILING HT
2002	4	13	13	SKY COVER
2002	4	13	19	CEILING HT
2002	4	13	19	SKY COVER
2002	4	14	1	CEILING HT
2002	4	14	1	SKY COVER
2002	4	14	7	CEILING HT
2002	4	14	7	SKY COVER
2002	4	14	13	CEILING HT
2002	4	14	13	SKY COVER
2002	4	14	19	CEILING HT
2002	4	14	19	SKY COVER
2002	4	15	1	CEILING HT
2002	4	15	1	SKY COVER
2002	4	15	7	SKY COVER
2002	4	15	13	CEILING HT
2002	4	15	13	SKY COVER
2002	4	16	1	CEILING HT
2002	4	16	1	SKY COVER
2002	4	16	7	CEILING HT
2002	4	16	7	SKY COVER
2002	4	16	13	CEILING HT
2002	4	16	13	SKY COVER
2002	4	16	19	CEILING HT
2002	4	16	19	SKY COVER
2002	4	17	1	SKY COVER
2002	4	17	7	CEILING HT
2002	4	17	7	SKY COVER
2002	4	17	13	CEILING HT
2002	4	17	13	SKY COVER
2002	4	18	1	SKY COVER
2002	4	18	7	CEILING HT
2002	4	18	7	SKY COVER
2002	4	18	13	CEILING HT
2002	4	18	13	SKY COVER
2002	4	18	19	SKY COVER
2002	4	19	1	CEILING HT
2002	4	19	1	SKY COVER
2002	4	19	7	SKY COVER
2002	4	19	13	SKY COVER
2002	4	19	19	SKY COVER
2002	4	20	1	SKY COVER
2002	4	20	7	CEILING HT
2002	4	20	7	SKY COVER
2002	4	20	13	SKY COVER
2002	4	20	19	SKY COVER
2002	4	20	22	CEILING HT

2002	4	20	22	SKY COVER
2002	4	21	1	SKY COVER
2002	4	21	3	CEILING HT
2002	4	21	3	SKY COVER
2002	4	21	7	SKY COVER
2002	4	21	9	CEILING HT
2002	4	21	9	SKY COVER
2002	4	21	13	SKY COVER
2002	4	21	19	CEILING HT
2002	4	21	19	SKY COVER
2002	4	22	1	CEILING HT
2002	4	22	1	SKY COVER
2002	4	22	7	CEILING HT
2002	4	22	7	SKY COVER
2002	4	22	13	CEILING HT
2002	4	22	13	SKY COVER
2002	4	22	19	CEILING HT
2002	4	22	19	SKY COVER
2002	4	23	1	CEILING HT
2002	4	23	1	SKY COVER
2002	4	23	7	CEILING HT
2002	4	23	7	SKY COVER
2002	4	23	13	CEILING HT
2002	4	23	13	SKY COVER
2002	4	23	19	CEILING HT
2002	4	23	19	SKY COVER
2002	4	24	1	CEILING HT
2002	4	24	1	SKY COVER
2002	4	24	7	CEILING HT
2002	4	24	7	SKY COVER
2002	4	24	10	CEILING HT
2002	4	24	10	SKY COVER
2002	4	24	13	SKY COVER
2002	4	24	19	CEILING HT
2002	4	24	19	SKY COVER
2002	4	25	1	CEILING HT
2002	4	25	1	SKY COVER
2002	4	25	7	CEILING HT
2002	4	25	7	SKY COVER
2002	4	25	13	CEILING HT
2002	4	25	13	SKY COVER
2002	4	25	19	CEILING HT
2002	4	25	19	SKY COVER
2002	4	26	1	CEILING HT
2002	4	26	1	SKY COVER
2002	4	26	7	CEILING HT
2002	4	26	7	SKY COVER
2002	4	26	13	CEILING HT
2002	4	26	13	SKY COVER
2002	4	26	19	CEILING HT
2002	4	26	19	SKY COVER
2002	4	27	1	SKY COVER
2002	4	27	7	CEILING HT
2002	4	27	7	SKY COVER
2002	4	27	13	SKY COVER
2002	4	27	19	SKY COVER
2002	4	27	22	CEILING HT
2002	4	27	22	SKY COVER
2002	4	28	1	SKY COVER

2002	4	28	7	SKY COVER
2002	4	28	13	CEILING HT
2002	4	28	13	SKY COVER
2002	4	28	19	CEILING HT
2002	4	28	19	SKY COVER
2002	4	29	1	CEILING HT
2002	4	29	1	SKY COVER
2002	4	29	7	CEILING HT
2002	4	29	7	SKY COVER
2002	4	29	13	CEILING HT
2002	4	29	13	SKY COVER
2002	4	29	19	CEILING HT
2002	4	29	19	SKY COVER
2002	4	30	1	CEILING HT
2002	4	30	1	SKY COVER
2002	4	30	7	CEILING HT
2002	4	30	7	SKY COVER
2002	4	30	13	SKY COVER
2002	4	30	19	CEILING HT
2002	4	30	19	SKY COVER
2002	5	1	1	CEILING HT
2002	5	1	1	SKY COVER
2002	5	1	7	SKY COVER
2002	5	1	14	CEILING HT
2002	5	1	14	SKY COVER
2002	5	1	20	CEILING HT
2002	5	1	20	SKY COVER
2002	5	2	1	SKY COVER
2002	5	2	7	CEILING HT
2002	5	2	7	SKY COVER
2002	5	2	13	CEILING HT
2002	5	2	13	SKY COVER
2002	5	2	19	CEILING HT
2002	5	2	19	SKY COVER
2002	5	3	1	CEILING HT
2002	5	3	1	SKY COVER
2002	5	3	7	CEILING HT
2002	5	3	7	SKY COVER
2002	5	3	13	CEILING HT
2002	5	3	13	SKY COVER
2002	5	3	19	CEILING HT
2002	5	3	19	SKY COVER
2002	5	4	1	SKY COVER
2002	5	4	4	CEILING HT
2002	5	4	4	SKY COVER
2002	5	4	7	SKY COVER
2002	5	4	13	SKY COVER
2002	5	4	19	CEILING HT
2002	5	4	19	SKY COVER
2002	5	5	1	CEILING HT
2002	5	5	1	SKY COVER
2002	5	5	7	CEILING HT
2002	5	5	7	SKY COVER
2002	5	5	13	CEILING HT
2002	5	5	13	SKY COVER
2002	5	5	19	CEILING HT
2002	5	5	19	SKY COVER
2002	5	6	1	CEILING HT
2002	5	6	1	SKY COVER

2002	5	6	7	CEILING HT
2002	5	6	7	SKY COVER
2002	5	6	13	CEILING HT
2002	5	6	13	SKY COVER
2002	5	6	19	CEILING HT
2002	5	6	19	SKY COVER
2002	5	7	1	CEILING HT
2002	5	7	1	SKY COVER
2002	5	7	7	SKY COVER
2002	5	7	13	SKY COVER
2002	5	8	7	SKY COVER
2002	5	8	9	CEILING HT
2002	5	8	9	SKY COVER
2002	5	8	13	SKY COVER
2002	5	8	19	CEILING HT
2002	5	8	19	SKY COVER
2002	5	9	1	SKY COVER
2002	5	9	7	CEILING HT
2002	5	9	7	SKY COVER
2002	5	9	13	CEILING HT
2002	5	9	13	SKY COVER
2002	5	9	19	CEILING HT
2002	5	9	19	SKY COVER
2002	5	10	1	CEILING HT
2002	5	10	1	SKY COVER
2002	5	10	7	SKY COVER
2002	5	10	13	CEILING HT
2002	5	10	13	SKY COVER
2002	5	10	19	CEILING HT
2002	5	10	19	SKY COVER
2002	5	11	1	SKY COVER
2002	5	11	6	CEILING HT
2002	5	11	7	SKY COVER
2002	5	11	13	SKY COVER
2002	5	11	17	CEILING HT
2002	5	11	17	SKY COVER
2002	5	11	19	SKY COVER
2002	5	12	1	SKY COVER
2002	5	12	7	CEILING HT
2002	5	12	7	SKY COVER
2002	5	12	13	CEILING HT
2002	5	12	13	SKY COVER
2002	5	13	1	CEILING HT
2002	5	13	1	SKY COVER
2002	5	13	7	CEILING HT
2002	5	13	7	SKY COVER
2002	5	13	13	CEILING HT
2002	5	13	13	SKY COVER
2002	5	13	19	CEILING HT
2002	5	13	19	SKY COVER
2002	5	14	1	CEILING HT
2002	5	14	1	SKY COVER
2002	5	14	7	CEILING HT
2002	5	14	7	SKY COVER
2002	5	14	13	CEILING HT
2002	5	14	13	SKY COVER
2002	5	14	19	CEILING HT
2002	5	14	19	SKY COVER
2002	5	15	1	CEILING HT

2002	5	15	1	SKY COVER
2002	5	15	7	SKY COVER
2002	5	15	13	CEILING HT
2002	5	15	13	SKY COVER
2002	5	15	19	CEILING HT
2002	5	15	19	SKY COVER
2002	5	16	1	CEILING HT
2002	5	16	1	SKY COVER
2002	5	16	7	SKY COVER
2002	5	16	13	SKY COVER
2002	5	16	19	SKY COVER
2002	5	17	1	CEILING HT
2002	5	17	1	SKY COVER
2002	5	17	7	SKY COVER
2002	5	17	13	SKY COVER
2002	5	17	19	CEILING HT
2002	5	17	19	SKY COVER
2002	5	18	1	CEILING HT
2002	5	18	1	SKY COVER
2002	5	18	7	CEILING HT
2002	5	18	7	SKY COVER
2002	5	18	13	SKY COVER
2002	5	18	19	CEILING HT
2002	5	18	19	SKY COVER
2002	5	19	1	CEILING HT
2002	5	19	1	SKY COVER
2002	5	19	7	CEILING HT
2002	5	19	7	SKY COVER
2002	5	19	13	CEILING HT
2002	5	19	13	SKY COVER
2002	5	19	19	CEILING HT
2002	5	19	19	SKY COVER
2002	5	20	1	CEILING HT
2002	5	20	1	SKY COVER
2002	5	20	7	CEILING HT
2002	5	20	7	SKY COVER
2002	5	20	13	CEILING HT
2002	5	20	13	SKY COVER
2002	5	20	19	CEILING HT
2002	5	20	19	SKY COVER
2002	5	21	1	CEILING HT
2002	5	21	1	SKY COVER
2002	5	21	7	CEILING HT
2002	5	21	7	SKY COVER
2002	5	21	13	CEILING HT
2002	5	21	13	SKY COVER
2002	5	21	19	CEILING HT
2002	5	21	19	SKY COVER
2002	5	21	22	CEILING HT
2002	5	21	22	SKY COVER
2002	5	22	1	SKY COVER
2002	5	22	7	CEILING HT
2002	5	22	7	SKY COVER
2002	5	22	13	SKY COVER
2002	5	22	19	SKY COVER
2002	5	23	1	SKY COVER
2002	5	23	7	CEILING HT
2002	5	23	7	SKY COVER
2002	5	23	13	SKY COVER

2002	5	23	19	SKY COVER
2002	5	24	1	CEILING HT
2002	5	24	1	SKY COVER
2002	5	24	7	SKY COVER
2002	5	24	13	SKY COVER
2002	5	24	19	CEILING HT
2002	5	24	19	SKY COVER
2002	5	25	1	SKY COVER
2002	5	25	7	CEILING HT
2002	5	25	7	SKY COVER
2002	5	25	13	CEILING HT
2002	5	25	13	SKY COVER
2002	5	25	19	CEILING HT
2002	5	25	19	SKY COVER
2002	5	26	1	SKY COVER
2002	5	26	7	CEILING HT
2002	5	26	7	SKY COVER
2002	5	26	13	CEILING HT
2002	5	26	13	SKY COVER
2002	5	26	19	CEILING HT
2002	5	26	19	SKY COVER
2002	5	27	1	CEILING HT
2002	5	27	1	SKY COVER
2002	5	27	7	CEILING HT
2002	5	27	7	SKY COVER
2002	5	27	13	CEILING HT
2002	5	27	13	SKY COVER
2002	5	27	19	CEILING HT
2002	5	27	19	SKY COVER
2002	5	28	1	CEILING HT
2002	5	28	1	SKY COVER
2002	5	28	7	CEILING HT
2002	5	28	7	SKY COVER
2002	5	28	13	CEILING HT
2002	5	28	13	SKY COVER
2002	5	28	19	CEILING HT
2002	5	28	19	SKY COVER
2002	5	29	1	SKY COVER
2002	5	29	7	CEILING HT
2002	5	29	7	SKY COVER
2002	5	29	13	CEILING HT
2002	5	29	13	SKY COVER
2002	5	29	19	CEILING HT
2002	5	29	19	SKY COVER
2002	5	30	1	CEILING HT
2002	5	30	1	SKY COVER
2002	5	30	7	CEILING HT
2002	5	30	7	SKY COVER
2002	5	30	13	CEILING HT
2002	5	30	13	SKY COVER
2002	5	30	19	CEILING HT
2002	5	30	19	SKY COVER
2002	5	31	1	CEILING HT
2002	5	31	1	SKY COVER
2002	5	31	7	CEILING HT
2002	5	31	7	SKY COVER
2002	5	31	13	CEILING HT
2002	5	31	13	SKY COVER
2002	5	31	19	CEILING HT

2002	5	31	19	SKY COVER
2002	6	1	1	CEILING HT
2002	6	1	1	SKY COVER
2002	6	1	7	CEILING HT
2002	6	1	7	SKY COVER
2002	6	1	13	CEILING HT
2002	6	1	13	SKY COVER
2002	6	1	19	CEILING HT
2002	6	1	19	SKY COVER
2002	6	2	1	CEILING HT
2002	6	2	1	SKY COVER
2002	6	2	7	CEILING HT
2002	6	2	7	SKY COVER
2002	6	2	13	CEILING HT
2002	6	2	13	SKY COVER
2002	6	2	19	CEILING HT
2002	6	2	19	SKY COVER
2002	6	2	23	SKY COVER
2002	6	3	1	CEILING HT
2002	6	3	1	SKY COVER
2002	6	3	6	CEILING HT
2002	6	3	7	SKY COVER
2002	6	3	14	CEILING HT
2002	6	3	14	SKY COVER
2002	6	3	19	SKY COVER
2002	6	4	1	SKY COVER
2002	6	4	7	CEILING HT
2002	6	4	7	SKY COVER
2002	6	4	13	SKY COVER
2002	6	4	19	CEILING HT
2002	6	4	19	SKY COVER
2002	6	5	1	CEILING HT
2002	6	5	1	SKY COVER
2002	6	5	7	CEILING HT
2002	6	5	7	SKY COVER
2002	6	5	13	CEILING HT
2002	6	5	13	SKY COVER
2002	6	5	19	CEILING HT
2002	6	5	19	SKY COVER
2002	6	6	1	CEILING HT
2002	6	6	1	SKY COVER
2002	6	6	7	CEILING HT
2002	6	6	7	SKY COVER
2002	6	6	19	CEILING HT
2002	6	6	19	SKY COVER
2002	6	7	1	CEILING HT
2002	6	7	1	SKY COVER
2002	6	7	7	CEILING HT
2002	6	7	7	SKY COVER
2002	6	7	13	CEILING HT
2002	6	7	13	SKY COVER
2002	6	7	19	CEILING HT
2002	6	7	19	SKY COVER
2002	6	8	1	CEILING HT
2002	6	8	1	SKY COVER
2002	6	8	7	SKY COVER
2002	6	8	13	CEILING HT
2002	6	8	13	SKY COVER
2002	6	8	19	CEILING HT

2002	6	8	19	SKY COVER
2002	6	9	1	CEILING HT
2002	6	9	1	SKY COVER
2002	6	9	7	CEILING HT
2002	6	9	7	SKY COVER
2002	6	9	13	CEILING HT
2002	6	9	13	SKY COVER
2002	6	9	19	CEILING HT
2002	6	9	19	SKY COVER
2002	6	10	1	CEILING HT
2002	6	10	1	SKY COVER
2002	6	10	7	SKY COVER
2002	6	10	13	CEILING HT
2002	6	10	13	SKY COVER
2002	6	10	19	CEILING HT
2002	6	10	19	SKY COVER
2002	6	11	1	CEILING HT
2002	6	11	1	SKY COVER
2002	6	11	7	CEILING HT
2002	6	11	7	SKY COVER
2002	6	11	13	CEILING HT
2002	6	11	13	SKY COVER
2002	6	11	19	CEILING HT
2002	6	11	19	SKY COVER
2002	6	12	1	CEILING HT
2002	6	12	1	SKY COVER
2002	6	12	7	CEILING HT
2002	6	12	7	SKY COVER
2002	6	12	13	CEILING HT
2002	6	12	13	SKY COVER
2002	6	12	19	CEILING HT
2002	6	12	19	SKY COVER
2002	6	13	1	CEILING HT
2002	6	13	1	SKY COVER
2002	6	13	7	CEILING HT
2002	6	13	7	SKY COVER
2002	6	13	13	CEILING HT
2002	6	13	13	SKY COVER
2002	6	13	19	CEILING HT
2002	6	13	19	SKY COVER
2002	6	14	7	CEILING HT
2002	6	14	7	SKY COVER
2002	6	14	13	CEILING HT
2002	6	14	13	SKY COVER
2002	6	14	19	CEILING HT
2002	6	14	19	SKY COVER
2002	6	15	1	CEILING HT
2002	6	15	1	SKY COVER
2002	6	15	7	CEILING HT
2002	6	15	7	SKY COVER
2002	6	15	13	CEILING HT
2002	6	15	13	SKY COVER
2002	6	16	1	CEILING HT
2002	6	16	1	SKY COVER
2002	6	16	7	CEILING HT
2002	6	16	7	SKY COVER
2002	6	16	13	CEILING HT
2002	6	16	13	SKY COVER
2002	6	16	19	CEILING HT

2002	6	16	19	SKY COVER
2002	6	17	1	CEILING HT
2002	6	17	1	SKY COVER
2002	6	17	7	CEILING HT
2002	6	17	7	SKY COVER
2002	6	17	13	CEILING HT
2002	6	17	13	SKY COVER
2002	6	17	19	CEILING HT
2002	6	17	19	SKY COVER
2002	6	18	1	CEILING HT
2002	6	18	1	SKY COVER
2002	6	18	7	CEILING HT
2002	6	18	7	SKY COVER
2002	6	18	13	CEILING HT
2002	6	18	13	SKY COVER
2002	6	19	1	CEILING HT
2002	6	19	1	SKY COVER
2002	6	19	7	CEILING HT
2002	6	19	7	SKY COVER
2002	6	19	13	SKY COVER
2002	6	20	1	CEILING HT
2002	6	20	1	SKY COVER
2002	6	20	7	CEILING HT
2002	6	20	7	SKY COVER
2002	6	20	13	CEILING HT
2002	6	20	13	SKY COVER
2002	6	20	19	CEILING HT
2002	6	20	19	SKY COVER
2002	6	21	7	CEILING HT
2002	6	21	7	SKY COVER
2002	6	21	19	CEILING HT
2002	6	21	19	SKY COVER
2002	6	22	1	CEILING HT
2002	6	22	1	SKY COVER
2002	6	22	7	CEILING HT
2002	6	22	7	SKY COVER
2002	6	22	13	CEILING HT
2002	6	22	13	SKY COVER
2002	6	22	19	SKY COVER
2002	6	23	1	CEILING HT
2002	6	23	1	SKY COVER
2002	6	23	7	CEILING HT
2002	6	23	7	SKY COVER
2002	6	23	19	CEILING HT
2002	6	23	19	SKY COVER
2002	6	24	1	CEILING HT
2002	6	24	1	SKY COVER
2002	6	24	7	CEILING HT
2002	6	24	7	SKY COVER
2002	6	24	13	CEILING HT
2002	6	24	13	SKY COVER
2002	6	24	19	CEILING HT
2002	6	24	19	SKY COVER
2002	6	25	1	CEILING HT
2002	6	25	1	SKY COVER
2002	6	25	7	CEILING HT
2002	6	25	7	SKY COVER
2002	6	25	13	CEILING HT
2002	6	25	13	SKY COVER

2002	6	25	19	CEILING HT
2002	6	25	19	SKY COVER
2002	6	26	7	CEILING HT
2002	6	26	7	SKY COVER
2002	6	26	13	CEILING HT
2002	6	26	13	SKY COVER
2002	6	26	19	CEILING HT
2002	6	26	19	SKY COVER
2002	6	27	1	CEILING HT
2002	6	27	1	SKY COVER
2002	6	27	7	CEILING HT
2002	6	27	7	SKY COVER
2002	6	27	13	CEILING HT
2002	6	27	13	SKY COVER
2002	6	27	19	CEILING HT
2002	6	27	19	SKY COVER
2002	6	28	1	CEILING HT
2002	6	28	1	SKY COVER
2002	6	28	7	CEILING HT
2002	6	28	7	SKY COVER
2002	6	28	13	CEILING HT
2002	6	28	13	SKY COVER
2002	6	28	19	CEILING HT
2002	6	28	19	SKY COVER
2002	6	29	1	CEILING HT
2002	6	29	1	SKY COVER
2002	6	29	7	CEILING HT
2002	6	29	7	SKY COVER
2002	6	29	13	CEILING HT
2002	6	29	13	SKY COVER
2002	6	29	19	CEILING HT
2002	6	29	19	SKY COVER
2002	6	30	1	CEILING HT
2002	6	30	1	SKY COVER
2002	6	30	7	CEILING HT
2002	6	30	7	SKY COVER
2002	6	30	13	CEILING HT
2002	6	30	13	SKY COVER
2002	6	30	19	CEILING HT
2002	6	30	19	SKY COVER
2002	7	1	1	CEILING HT
2002	7	1	1	SKY COVER
2002	7	1	7	CEILING HT
2002	7	1	7	SKY COVER
2002	7	1	13	CEILING HT
2002	7	1	13	SKY COVER
2002	7	1	19	CEILING HT
2002	7	1	19	SKY COVER
2002	7	2	1	CEILING HT
2002	7	2	1	SKY COVER
2002	7	2	7	CEILING HT
2002	7	2	7	SKY COVER
2002	7	2	13	CEILING HT
2002	7	2	13	SKY COVER
2002	7	2	19	CEILING HT
2002	7	2	19	SKY COVER
2002	7	3	1	CEILING HT
2002	7	3	1	SKY COVER
2002	7	3	7	CEILING HT

2002	7	3	7	SKY COVER
2002	7	3	13	CEILING HT
2002	7	3	13	SKY COVER
2002	7	3	19	CEILING HT
2002	7	3	19	SKY COVER
2002	7	4	1	CEILING HT
2002	7	4	1	SKY COVER
2002	7	4	7	CEILING HT
2002	7	4	7	SKY COVER
2002	7	4	16	CEILING HT
2002	7	4	16	SKY COVER
2002	7	4	18	CEILING HT
2002	7	4	18	SKY COVER
2002	7	5	1	CEILING HT
2002	7	5	1	SKY COVER
2002	7	5	7	CEILING HT
2002	7	5	7	SKY COVER
2002	7	5	13	CEILING HT
2002	7	5	13	SKY COVER
2002	7	5	19	CEILING HT
2002	7	5	19	SKY COVER
2002	7	6	1	CEILING HT
2002	7	6	1	SKY COVER
2002	7	6	7	CEILING HT
2002	7	6	7	SKY COVER
2002	7	6	13	CEILING HT
2002	7	6	13	SKY COVER
2002	7	6	19	CEILING HT
2002	7	6	19	SKY COVER
2002	7	7	1	CEILING HT
2002	7	7	1	SKY COVER
2002	7	7	7	SKY COVER
2002	7	7	13	CEILING HT
2002	7	7	13	SKY COVER
2002	7	7	19	CEILING HT
2002	7	7	19	SKY COVER
2002	7	8	1	CEILING HT
2002	7	8	1	SKY COVER
2002	7	8	13	CEILING HT
2002	7	8	13	SKY COVER
2002	7	8	19	CEILING HT
2002	7	8	19	SKY COVER
2002	7	9	1	CEILING HT
2002	7	9	1	SKY COVER
2002	7	9	7	CEILING HT
2002	7	9	7	SKY COVER
2002	7	9	13	CEILING HT
2002	7	9	13	SKY COVER
2002	7	9	19	CEILING HT
2002	7	9	19	SKY COVER
2002	7	10	1	CEILING HT
2002	7	10	1	SKY COVER
2002	7	10	7	CEILING HT
2002	7	10	7	SKY COVER
2002	7	10	13	CEILING HT
2002	7	10	13	SKY COVER
2002	7	10	19	CEILING HT
2002	7	10	19	SKY COVER
2002	7	11	1	CEILING HT

2002	7	11	1	SKY COVER
2002	7	11	7	CEILING HT
2002	7	11	7	SKY COVER
2002	7	11	13	CEILING HT
2002	7	11	13	SKY COVER
2002	7	11	19	CEILING HT
2002	7	11	19	SKY COVER
2002	7	12	1	CEILING HT
2002	7	12	1	SKY COVER
2002	7	12	7	CEILING HT
2002	7	12	7	SKY COVER
2002	7	12	13	CEILING HT
2002	7	12	13	SKY COVER
2002	7	12	19	CEILING HT
2002	7	12	19	SKY COVER
2002	7	13	1	CEILING HT
2002	7	13	1	SKY COVER
2002	7	13	7	CEILING HT
2002	7	13	7	SKY COVER
2002	7	13	13	CEILING HT
2002	7	13	13	SKY COVER
2002	7	13	19	CEILING HT
2002	7	13	19	SKY COVER
2002	7	14	1	CEILING HT
2002	7	14	1	SKY COVER
2002	7	14	7	CEILING HT
2002	7	14	7	SKY COVER
2002	7	14	13	CEILING HT
2002	7	14	13	SKY COVER
2002	7	14	19	CEILING HT
2002	7	14	19	SKY COVER
2002	7	15	1	CEILING HT
2002	7	15	1	SKY COVER
2002	7	15	7	CEILING HT
2002	7	15	7	SKY COVER
2002	7	15	13	CEILING HT
2002	7	15	13	SKY COVER
2002	7	15	19	CEILING HT
2002	7	15	19	SKY COVER
2002	7	16	1	CEILING HT
2002	7	16	1	SKY COVER
2002	7	16	7	CEILING HT
2002	7	16	7	SKY COVER
2002	7	16	13	CEILING HT
2002	7	16	13	SKY COVER
2002	7	16	19	CEILING HT
2002	7	16	19	SKY COVER
2002	7	17	1	CEILING HT
2002	7	17	1	SKY COVER
2002	7	17	7	CEILING HT
2002	7	17	7	SKY COVER
2002	7	17	13	CEILING HT
2002	7	17	13	SKY COVER
2002	7	17	19	CEILING HT
2002	7	17	19	SKY COVER
2002	7	18	1	CEILING HT
2002	7	18	1	SKY COVER
2002	7	18	7	CEILING HT
2002	7	18	7	SKY COVER

2002	7	18	13	CEILING HT
2002	7	18	13	SKY COVER
2002	7	18	19	CEILING HT
2002	7	18	19	SKY COVER
2002	7	19	1	CEILING HT
2002	7	19	1	SKY COVER
2002	7	19	7	SKY COVER
2002	7	19	13	CEILING HT
2002	7	19	13	SKY COVER
2002	7	19	19	CEILING HT
2002	7	19	19	SKY COVER
2002	7	20	1	CEILING HT
2002	7	20	1	SKY COVER
2002	7	20	13	CEILING HT
2002	7	20	13	SKY COVER
2002	7	20	19	CEILING HT
2002	7	20	19	SKY COVER
2002	7	21	1	CEILING HT
2002	7	21	1	SKY COVER
2002	7	21	7	CEILING HT
2002	7	21	7	SKY COVER
2002	7	21	13	CEILING HT
2002	7	21	13	SKY COVER
2002	7	21	19	CEILING HT
2002	7	21	19	SKY COVER
2002	7	22	1	CEILING HT
2002	7	22	1	SKY COVER
2002	7	22	7	SKY COVER
2002	7	22	13	CEILING HT
2002	7	22	13	SKY COVER
2002	7	22	19	CEILING HT
2002	7	22	19	SKY COVER
2002	7	23	1	CEILING HT
2002	7	23	1	SKY COVER
2002	7	23	7	CEILING HT
2002	7	23	7	SKY COVER
2002	7	23	13	CEILING HT
2002	7	23	13	SKY COVER
2002	7	23	19	CEILING HT
2002	7	23	19	SKY COVER
2002	7	24	1	CEILING HT
2002	7	24	1	SKY COVER
2002	7	24	7	CEILING HT
2002	7	24	7	SKY COVER
2002	7	24	13	CEILING HT
2002	7	24	13	SKY COVER
2002	7	24	19	CEILING HT
2002	7	24	19	SKY COVER
2002	7	25	1	CEILING HT
2002	7	25	1	SKY COVER
2002	7	25	7	CEILING HT
2002	7	25	7	SKY COVER
2002	7	25	19	SKY COVER
2002	7	26	1	SKY COVER
2002	7	26	7	CEILING HT
2002	7	26	7	SKY COVER
2002	7	26	13	CEILING HT
2002	7	26	13	SKY COVER
2002	7	27	1	CEILING HT

2002	7	27	1	SKY COVER
2002	7	27	7	CEILING HT
2002	7	27	7	SKY COVER
2002	7	27	13	CEILING HT
2002	7	27	13	SKY COVER
2002	7	27	19	CEILING HT
2002	7	27	19	SKY COVER
2002	7	28	1	CEILING HT
2002	7	28	1	SKY COVER
2002	7	28	7	CEILING HT
2002	7	28	7	SKY COVER
2002	7	28	13	CEILING HT
2002	7	28	13	SKY COVER
2002	7	28	19	CEILING HT
2002	7	28	19	SKY COVER
2002	7	29	1	CEILING HT
2002	7	29	1	SKY COVER
2002	7	29	7	CEILING HT
2002	7	29	7	SKY COVER
2002	7	29	13	CEILING HT
2002	7	29	13	SKY COVER
2002	7	29	19	CEILING HT
2002	7	29	19	SKY COVER
2002	7	30	1	CEILING HT
2002	7	30	1	SKY COVER
2002	7	30	7	CEILING HT
2002	7	30	7	SKY COVER
2002	7	30	13	CEILING HT
2002	7	30	13	SKY COVER
2002	7	30	19	CEILING HT
2002	7	30	19	SKY COVER
2002	7	31	1	CEILING HT
2002	7	31	1	SKY COVER
2002	7	31	7	CEILING HT
2002	7	31	7	SKY COVER
2002	7	31	13	CEILING HT
2002	7	31	13	SKY COVER
2002	7	31	19	CEILING HT
2002	7	31	19	SKY COVER
2002	8	1	1	CEILING HT
2002	8	1	1	SKY COVER
2002	8	1	7	CEILING HT
2002	8	1	7	SKY COVER
2002	8	1	13	CEILING HT
2002	8	1	13	SKY COVER
2002	8	1	19	CEILING HT
2002	8	1	19	SKY COVER
2002	8	2	1	CEILING HT
2002	8	2	1	SKY COVER
2002	8	2	7	CEILING HT
2002	8	2	7	SKY COVER
2002	8	2	13	CEILING HT
2002	8	2	13	SKY COVER
2002	8	2	19	CEILING HT
2002	8	2	19	SKY COVER
2002	8	3	1	SKY COVER
2002	8	3	7	SKY COVER
2002	8	3	13	CEILING HT
2002	8	3	13	SKY COVER

2002	8	3	19	CEILING HT
2002	8	3	19	SKY COVER
2002	8	4	1	SKY COVER
2002	8	4	7	CEILING HT
2002	8	4	7	SKY COVER
2002	8	4	13	SKY COVER
2002	8	4	19	CEILING HT
2002	8	4	19	SKY COVER
2002	8	5	1	CEILING HT
2002	8	5	1	SKY COVER
2002	8	5	7	CEILING HT
2002	8	5	7	SKY COVER
2002	8	5	13	CEILING HT
2002	8	5	13	SKY COVER
2002	8	5	19	CEILING HT
2002	8	5	19	SKY COVER
2002	8	6	1	CEILING HT
2002	8	6	1	SKY COVER
2002	8	6	7	CEILING HT
2002	8	6	7	SKY COVER
2002	8	6	13	CEILING HT
2002	8	6	13	SKY COVER
2002	8	6	19	CEILING HT
2002	8	6	19	SKY COVER
2002	8	7	1	CEILING HT
2002	8	7	1	SKY COVER
2002	8	7	7	CEILING HT
2002	8	7	7	SKY COVER
2002	8	7	13	CEILING HT
2002	8	7	13	SKY COVER
2002	8	7	19	CEILING HT
2002	8	7	19	SKY COVER
2002	8	8	2	CEILING HT
2002	8	8	2	SKY COVER
2002	8	8	7	CEILING HT
2002	8	8	7	SKY COVER
2002	8	8	13	CEILING HT
2002	8	8	13	SKY COVER
2002	8	8	19	CEILING HT
2002	8	8	19	SKY COVER
2002	8	9	1	CEILING HT
2002	8	9	1	SKY COVER
2002	8	9	7	CEILING HT
2002	8	9	7	SKY COVER
2002	8	9	13	CEILING HT
2002	8	9	13	SKY COVER
2002	8	9	19	CEILING HT
2002	8	9	19	SKY COVER
2002	8	10	1	CEILING HT
2002	8	10	1	SKY COVER
2002	8	10	7	CEILING HT
2002	8	10	7	SKY COVER
2002	8	10	13	CEILING HT
2002	8	10	13	SKY COVER
2002	8	10	19	CEILING HT
2002	8	10	19	SKY COVER
2002	8	11	1	CEILING HT
2002	8	11	1	SKY COVER
2002	8	11	7	CEILING HT

2002	8	11	7	SKY COVER
2002	8	11	13	CEILING HT
2002	8	11	13	SKY COVER
2002	8	11	19	CEILING HT
2002	8	11	19	SKY COVER
2002	8	12	1	CEILING HT
2002	8	12	1	SKY COVER
2002	8	12	7	CEILING HT
2002	8	12	7	SKY COVER
2002	8	12	13	SKY COVER
2002	8	12	19	SKY COVER
2002	8	13	1	CEILING HT
2002	8	13	1	SKY COVER
2002	8	13	7	CEILING HT
2002	8	13	7	SKY COVER
2002	8	13	13	CEILING HT
2002	8	13	13	SKY COVER
2002	8	13	19	CEILING HT
2002	8	13	19	SKY COVER
2002	8	14	1	CEILING HT
2002	8	14	1	SKY COVER
2002	8	14	7	CEILING HT
2002	8	14	7	SKY COVER
2002	8	14	13	CEILING HT
2002	8	14	13	SKY COVER
2002	8	14	19	CEILING HT
2002	8	14	19	SKY COVER
2002	8	15	1	CEILING HT
2002	8	15	1	SKY COVER
2002	8	15	7	CEILING HT
2002	8	15	7	SKY COVER
2002	8	15	13	CEILING HT
2002	8	15	13	SKY COVER
2002	8	15	19	CEILING HT
2002	8	15	19	SKY COVER
2002	8	16	1	CEILING HT
2002	8	16	1	SKY COVER
2002	8	16	7	CEILING HT
2002	8	16	7	SKY COVER
2002	8	16	13	CEILING HT
2002	8	16	13	SKY COVER
2002	8	16	19	CEILING HT
2002	8	16	19	SKY COVER
2002	8	17	1	CEILING HT
2002	8	17	1	SKY COVER
2002	8	17	7	CEILING HT
2002	8	17	7	SKY COVER
2002	8	17	13	CEILING HT
2002	8	17	13	SKY COVER
2002	8	17	19	CEILING HT
2002	8	17	19	SKY COVER
2002	8	18	1	CEILING HT
2002	8	18	1	SKY COVER
2002	8	18	7	CEILING HT
2002	8	18	7	SKY COVER
2002	8	18	13	CEILING HT
2002	8	18	13	SKY COVER
2002	8	18	19	CEILING HT
2002	8	18	19	SKY COVER

2002	8	19	1	CEILING HT
2002	8	19	1	SKY COVER
2002	8	19	7	CEILING HT
2002	8	19	7	SKY COVER
2002	8	19	13	CEILING HT
2002	8	19	13	SKY COVER
2002	8	19	19	CEILING HT
2002	8	19	19	SKY COVER
2002	8	20	1	CEILING HT
2002	8	20	1	SKY COVER
2002	8	20	13	CEILING HT
2002	8	20	13	SKY COVER
2002	8	20	19	CEILING HT
2002	8	20	19	SKY COVER
2002	8	21	7	CEILING HT
2002	8	21	7	SKY COVER
2002	8	21	19	CEILING HT
2002	8	21	19	SKY COVER
2002	8	22	1	SKY COVER
2002	8	22	7	SKY COVER
2002	8	22	13	CEILING HT
2002	8	22	13	SKY COVER
2002	8	22	19	CEILING HT
2002	8	22	19	SKY COVER
2002	8	23	1	CEILING HT
2002	8	23	1	SKY COVER
2002	8	23	7	CEILING HT
2002	8	23	7	SKY COVER
2002	8	23	13	CEILING HT
2002	8	23	13	SKY COVER
2002	8	23	19	CEILING HT
2002	8	23	19	SKY COVER
2002	8	24	1	CEILING HT
2002	8	24	1	SKY COVER
2002	8	24	7	CEILING HT
2002	8	24	7	SKY COVER
2002	8	24	13	CEILING HT
2002	8	24	13	SKY COVER
2002	8	24	19	CEILING HT
2002	8	24	19	SKY COVER
2002	8	25	1	CEILING HT
2002	8	25	1	SKY COVER
2002	8	25	7	CEILING HT
2002	8	25	7	SKY COVER
2002	8	25	13	CEILING HT
2002	8	25	13	SKY COVER
2002	8	25	19	CEILING HT
2002	8	25	19	SKY COVER
2002	8	26	1	CEILING HT
2002	8	26	1	SKY COVER
2002	8	26	7	CEILING HT
2002	8	26	7	SKY COVER
2002	8	26	13	CEILING HT
2002	8	26	13	SKY COVER
2002	8	26	19	CEILING HT
2002	8	26	19	SKY COVER
2002	8	27	1	CEILING HT
2002	8	27	1	SKY COVER
2002	8	27	7	CEILING HT

2002	8	27	7	SKY COVER
2002	8	27	13	SKY COVER
2002	8	27	19	SKY COVER
2002	8	28	1	CEILING HT
2002	8	28	1	SKY COVER
2002	8	28	7	SKY COVER
2002	8	28	13	SKY COVER
2002	8	28	19	SKY COVER
2002	8	29	1	CEILING HT
2002	8	29	1	SKY COVER
2002	8	29	7	CEILING HT
2002	8	29	7	SKY COVER
2002	8	29	13	CEILING HT
2002	8	29	13	SKY COVER
2002	8	29	19	CEILING HT
2002	8	29	19	SKY COVER
2002	8	30	1	CEILING HT
2002	8	30	1	SKY COVER
2002	8	30	7	CEILING HT
2002	8	30	7	SKY COVER
2002	8	30	13	CEILING HT
2002	8	30	13	SKY COVER
2002	8	30	19	CEILING HT
2002	8	30	19	SKY COVER
2002	8	31	1	CEILING HT
2002	8	31	1	SKY COVER
2002	8	31	7	CEILING HT
2002	8	31	7	SKY COVER
2002	8	31	13	CEILING HT
2002	8	31	13	SKY COVER
2002	8	31	19	CEILING HT
2002	8	31	19	SKY COVER
2002	9	1	1	CEILING HT
2002	9	1	1	SKY COVER
2002	9	1	7	CEILING HT
2002	9	1	7	SKY COVER
2002	9	1	13	CEILING HT
2002	9	1	13	SKY COVER
2002	9	1	19	CEILING HT
2002	9	1	19	SKY COVER
2002	9	2	1	CEILING HT
2002	9	2	1	SKY COVER
2002	9	2	7	CEILING HT
2002	9	2	7	SKY COVER
2002	9	2	13	CEILING HT
2002	9	2	13	SKY COVER
2002	9	2	19	CEILING HT
2002	9	2	19	SKY COVER
2002	9	3	1	CEILING HT
2002	9	3	1	SKY COVER
2002	9	3	7	CEILING HT
2002	9	3	7	SKY COVER
2002	9	3	13	CEILING HT
2002	9	3	13	SKY COVER
2002	9	3	19	CEILING HT
2002	9	3	19	SKY COVER
2002	9	4	1	CEILING HT
2002	9	4	1	SKY COVER
2002	9	4	7	CEILING HT

2002	9	4	7	SKY COVER
2002	9	4	13	CEILING HT
2002	9	4	13	SKY COVER
2002	9	4	19	CEILING HT
2002	9	4	19	SKY COVER
2002	9	5	1	CEILING HT
2002	9	5	1	SKY COVER
2002	9	5	7	CEILING HT
2002	9	5	7	SKY COVER
2002	9	5	13	CEILING HT
2002	9	5	13	SKY COVER
2002	9	6	1	CEILING HT
2002	9	6	1	SKY COVER
2002	9	6	7	CEILING HT
2002	9	6	7	SKY COVER
2002	9	6	13	CEILING HT
2002	9	6	13	SKY COVER
2002	9	6	19	CEILING HT
2002	9	6	19	SKY COVER
2002	9	7	1	CEILING HT
2002	9	7	1	SKY COVER
2002	9	7	7	CEILING HT
2002	9	7	7	SKY COVER
2002	9	7	13	CEILING HT
2002	9	7	13	SKY COVER
2002	9	7	19	CEILING HT
2002	9	7	19	SKY COVER
2002	9	8	1	CEILING HT
2002	9	8	1	SKY COVER
2002	9	8	7	CEILING HT
2002	9	8	7	SKY COVER
2002	9	8	13	CEILING HT
2002	9	8	13	SKY COVER
2002	9	8	19	CEILING HT
2002	9	8	19	SKY COVER
2002	9	8	23	CEILING HT
2002	9	8	23	SKY COVER
2002	9	9	1	CEILING HT
2002	9	9	1	SKY COVER
2002	9	9	7	SKY COVER
2002	9	9	13	SKY COVER
2002	9	9	18	CEILING HT
2002	9	9	19	SKY COVER
2002	9	10	1	CEILING HT
2002	9	10	1	SKY COVER
2002	9	10	7	CEILING HT
2002	9	10	7	SKY COVER
2002	9	10	13	CEILING HT
2002	9	10	13	SKY COVER
2002	9	11	1	CEILING HT
2002	9	11	1	SKY COVER
2002	9	11	14	CEILING HT
2002	9	11	14	SKY COVER
2002	9	11	19	CEILING HT
2002	9	11	19	SKY COVER
2002	9	12	1	CEILING HT
2002	9	12	1	SKY COVER
2002	9	12	7	CEILING HT
2002	9	12	7	SKY COVER

2002	9	12	13	SKY COVER
2002	9	12	18	CEILING HT
2002	9	12	19	SKY COVER
2002	9	13	1	SKY COVER
2002	9	13	7	SKY COVER
2002	9	13	13	SKY COVER
2002	9	13	19	CEILING HT
2002	9	13	19	SKY COVER
2002	9	14	1	CEILING HT
2002	9	14	1	SKY COVER
2002	9	14	7	CEILING HT
2002	9	14	7	SKY COVER
2002	9	14	13	CEILING HT
2002	9	14	13	SKY COVER
2002	9	14	19	CEILING HT
2002	9	14	19	SKY COVER
2002	9	15	1	CEILING HT
2002	9	15	1	SKY COVER
2002	9	15	7	CEILING HT
2002	9	15	7	SKY COVER
2002	9	15	13	CEILING HT
2002	9	15	13	SKY COVER
2002	9	15	19	CEILING HT
2002	9	15	19	SKY COVER
2002	9	16	1	CEILING HT
2002	9	16	1	SKY COVER
2002	9	16	7	CEILING HT
2002	9	16	7	SKY COVER
2002	9	16	13	CEILING HT
2002	9	16	13	SKY COVER
2002	9	16	19	CEILING HT
2002	9	16	19	SKY COVER
2002	9	17	1	CEILING HT
2002	9	17	1	SKY COVER
2002	9	17	7	CEILING HT
2002	9	17	7	SKY COVER
2002	9	17	13	CEILING HT
2002	9	17	13	SKY COVER
2002	9	17	19	CEILING HT
2002	9	17	19	SKY COVER
2002	9	18	1	SKY COVER
2002	9	18	7	SKY COVER
2002	9	18	13	SKY COVER
2002	9	18	19	SKY COVER
2002	9	19	7	SKY COVER
2002	9	19	13	SKY COVER
2002	9	19	19	CEILING HT
2002	9	19	19	SKY COVER
2002	9	20	1	CEILING HT
2002	9	20	1	SKY COVER
2002	9	20	7	CEILING HT
2002	9	20	7	SKY COVER
2002	9	20	13	CEILING HT
2002	9	20	13	SKY COVER
2002	9	20	19	CEILING HT
2002	9	20	19	SKY COVER
2002	9	21	1	CEILING HT
2002	9	21	1	SKY COVER
2002	9	21	7	CEILING HT

2002	9	21	7	SKY COVER
2002	9	21	13	CEILING HT
2002	9	21	13	SKY COVER
2002	9	21	19	CEILING HT
2002	9	21	19	SKY COVER
2002	9	21	22	CEILING HT
2002	9	21	22	SKY COVER
2002	9	22	1	CEILING HT
2002	9	22	1	SKY COVER
2002	9	22	7	CEILING HT
2002	9	22	7	SKY COVER
2002	9	22	13	CEILING HT
2002	9	22	13	SKY COVER
2002	9	22	19	CEILING HT
2002	9	22	19	SKY COVER
2002	9	23	1	CEILING HT
2002	9	23	1	SKY COVER
2002	9	23	7	CEILING HT
2002	9	23	7	SKY COVER
2002	9	23	13	CEILING HT
2002	9	23	13	SKY COVER
2002	9	23	19	CEILING HT
2002	9	23	19	SKY COVER
2002	9	24	1	CEILING HT
2002	9	24	1	SKY COVER
2002	9	24	7	CEILING HT
2002	9	24	7	SKY COVER
2002	9	24	13	CEILING HT
2002	9	24	13	SKY COVER
2002	9	24	19	CEILING HT
2002	9	24	19	SKY COVER
2002	9	25	1	CEILING HT
2002	9	25	1	SKY COVER
2002	9	25	7	CEILING HT
2002	9	25	7	SKY COVER
2002	9	25	13	SKY COVER
2002	9	25	19	SKY COVER
2002	9	26	1	SKY COVER
2002	9	26	7	SKY COVER
2002	9	26	13	CEILING HT
2002	9	26	13	SKY COVER
2002	9	26	19	CEILING HT
2002	9	26	19	SKY COVER
2002	9	27	1	CEILING HT
2002	9	27	1	SKY COVER
2002	9	27	7	CEILING HT
2002	9	27	7	SKY COVER
2002	9	27	13	CEILING HT
2002	9	27	13	SKY COVER
2002	9	27	19	CEILING HT
2002	9	27	19	SKY COVER
2002	9	28	1	CEILING HT
2002	9	28	1	SKY COVER
2002	9	28	7	SKY COVER
2002	9	28	13	SKY COVER
2002	9	28	19	CEILING HT
2002	9	28	19	SKY COVER
2002	9	29	1	CEILING HT
2002	9	29	1	SKY COVER

2002	9	29	7	CEILING HT
2002	9	29	7	SKY COVER
2002	9	29	13	CEILING HT
2002	9	29	13	SKY COVER
2002	9	29	19	CEILING HT
2002	9	29	19	SKY COVER
2002	9	30	1	CEILING HT
2002	9	30	1	SKY COVER
2002	9	30	7	CEILING HT
2002	9	30	7	SKY COVER
2002	9	30	13	CEILING HT
2002	9	30	13	SKY COVER
2002	9	30	19	CEILING HT
2002	9	30	19	SKY COVER
2002	10	1	1	SKY COVER
2002	10	1	7	SKY COVER
2002	10	1	13	SKY COVER
2002	10	1	16	CEILING HT
2002	10	1	16	SKY COVER
2002	10	1	19	SKY COVER
2002	10	2	1	SKY COVER
2002	10	2	7	SKY COVER
2002	10	2	13	SKY COVER
2002	10	2	20	CEILING HT
2002	10	2	20	SKY COVER
2002	10	3	1	SKY COVER
2002	10	3	7	SKY COVER
2002	10	3	13	CEILING HT
2002	10	3	13	SKY COVER
2002	10	3	19	SKY COVER
2002	10	3	24	CEILING HT
2002	10	4	1	SKY COVER
2002	10	4	7	SKY COVER
2002	10	4	13	SKY COVER
2002	10	4	19	SKY COVER
2002	10	5	1	CEILING HT
2002	10	5	1	SKY COVER
2002	10	5	7	CEILING HT
2002	10	5	7	SKY COVER
2002	10	5	13	CEILING HT
2002	10	5	13	SKY COVER
2002	10	5	19	CEILING HT
2002	10	5	19	SKY COVER
2002	10	6	1	SKY COVER
2002	10	6	7	SKY COVER
2002	10	6	13	SKY COVER
2002	10	6	19	CEILING HT
2002	10	6	19	SKY COVER
2002	10	7	1	CEILING HT
2002	10	7	1	SKY COVER
2002	10	7	7	CEILING HT
2002	10	7	7	SKY COVER
2002	10	7	19	CEILING HT
2002	10	7	19	SKY COVER
2002	10	8	1	CEILING HT
2002	10	8	1	SKY COVER
2002	10	8	7	CEILING HT
2002	10	8	7	SKY COVER
2002	10	8	13	SKY COVER

2002	10	8	15	CEILING HT
2002	10	8	15	SKY COVER
2002	10	8	19	SKY COVER
2002	10	9	1	CEILING HT
2002	10	9	1	SKY COVER
2002	10	9	7	CEILING HT
2002	10	9	7	SKY COVER
2002	10	9	13	CEILING HT
2002	10	9	13	SKY COVER
2002	10	9	19	CEILING HT
2002	10	9	19	SKY COVER
2002	10	10	1	CEILING HT
2002	10	10	1	SKY COVER
2002	10	10	7	CEILING HT
2002	10	10	7	SKY COVER
2002	10	10	13	CEILING HT
2002	10	10	13	SKY COVER
2002	10	10	19	CEILING HT
2002	10	10	19	SKY COVER
2002	10	11	1	CEILING HT
2002	10	11	1	SKY COVER
2002	10	11	7	CEILING HT
2002	10	11	7	SKY COVER
2002	10	11	13	CEILING HT
2002	10	11	13	SKY COVER
2002	10	11	19	CEILING HT
2002	10	11	19	SKY COVER
2002	10	12	1	SKY COVER
2002	10	12	7	CEILING HT
2002	10	12	7	SKY COVER
2002	10	12	13	SKY COVER
2002	10	12	19	CEILING HT
2002	10	12	19	SKY COVER
2002	10	13	1	CEILING HT
2002	10	13	1	SKY COVER
2002	10	13	7	CEILING HT
2002	10	13	7	SKY COVER
2002	10	13	13	CEILING HT
2002	10	13	13	SKY COVER
2002	10	13	19	CEILING HT
2002	10	13	19	SKY COVER
2002	10	14	1	CEILING HT
2002	10	14	1	SKY COVER
2002	10	14	7	CEILING HT
2002	10	14	7	SKY COVER
2002	10	14	13	CEILING HT
2002	10	14	13	SKY COVER
2002	10	14	19	CEILING HT
2002	10	14	19	SKY COVER
2002	10	15	1	CEILING HT
2002	10	15	1	SKY COVER
2002	10	15	7	CEILING HT
2002	10	15	7	SKY COVER
2002	10	15	13	CEILING HT
2002	10	15	13	SKY COVER
2002	10	15	19	CEILING HT
2002	10	15	19	SKY COVER
2002	10	16	1	CEILING HT
2002	10	16	1	SKY COVER

2002	10	16	7	SKY COVER
2002	10	16	13	SKY COVER
2002	10	16	19	SKY COVER
2002	10	17	1	CEILING HT
2002	10	17	1	SKY COVER
2002	10	17	7	CEILING HT
2002	10	17	7	SKY COVER
2002	10	17	13	CEILING HT
2002	10	17	13	SKY COVER
2002	10	17	19	CEILING HT
2002	10	17	19	SKY COVER
2002	10	18	1	CEILING HT
2002	10	18	1	SKY COVER
2002	10	18	7	CEILING HT
2002	10	18	7	SKY COVER
2002	10	18	13	CEILING HT
2002	10	18	13	SKY COVER
2002	10	18	19	CEILING HT
2002	10	18	19	SKY COVER
2002	10	19	1	CEILING HT
2002	10	19	1	SKY COVER
2002	10	19	7	CEILING HT
2002	10	19	7	SKY COVER
2002	10	19	13	CEILING HT
2002	10	19	13	SKY COVER
2002	10	19	19	CEILING HT
2002	10	19	19	SKY COVER
2002	10	20	1	CEILING HT
2002	10	20	1	SKY COVER
2002	10	20	7	CEILING HT
2002	10	20	7	SKY COVER
2002	10	20	13	CEILING HT
2002	10	20	13	SKY COVER
2002	10	20	19	CEILING HT
2002	10	20	19	SKY COVER
2002	10	21	1	CEILING HT
2002	10	21	1	SKY COVER
2002	10	21	7	SKY COVER
2002	10	21	13	CEILING HT
2002	10	21	13	SKY COVER
2002	10	21	19	CEILING HT
2002	10	21	19	SKY COVER
2002	10	22	1	CEILING HT
2002	10	22	1	SKY COVER
2002	10	22	7	CEILING HT
2002	10	22	7	SKY COVER
2002	10	22	13	SKY COVER
2002	10	22	18	CEILING HT
2002	10	22	19	SKY COVER
2002	10	23	1	SKY COVER
2002	10	23	7	SKY COVER
2002	10	23	13	SKY COVER
2002	10	23	19	SKY COVER
2002	10	24	1	SKY COVER
2002	10	24	4	CEILING HT
2002	10	24	4	SKY COVER
2002	10	24	7	SKY COVER
2002	10	24	13	SKY COVER
2002	10	24	17	CEILING HT

2002	10	24	17	SKY COVER
2002	10	24	19	SKY COVER
2002	10	25	1	SKY COVER
2002	10	25	7	CEILING HT
2002	10	25	7	SKY COVER
2002	10	25	13	SKY COVER
2002	10	25	19	CEILING HT
2002	10	25	19	SKY COVER
2002	10	26	1	CEILING HT
2002	10	26	1	SKY COVER
2002	10	26	19	CEILING HT
2002	10	26	19	SKY COVER
2002	10	27	1	CEILING HT
2002	10	27	1	SKY COVER
2002	10	27	7	CEILING HT
2002	10	27	7	SKY COVER
2002	10	27	13	CEILING HT
2002	10	27	13	SKY COVER
2002	10	27	19	CEILING HT
2002	10	27	19	SKY COVER
2002	10	28	1	CEILING HT
2002	10	28	1	SKY COVER
2002	10	28	7	CEILING HT
2002	10	28	7	SKY COVER
2002	10	28	13	CEILING HT
2002	10	28	13	SKY COVER
2002	10	28	19	CEILING HT
2002	10	28	19	SKY COVER
2002	10	29	1	SKY COVER
2002	10	29	7	SKY COVER
2002	10	29	14	CEILING HT
2002	10	29	14	SKY COVER
2002	10	30	1	SKY COVER
2002	10	30	7	SKY COVER
2002	10	30	13	SKY COVER
2002	10	30	19	SKY COVER
2002	10	31	1	SKY COVER
2002	10	31	7	SKY COVER
2002	10	31	13	SKY COVER
2002	10	31	19	SKY COVER
2002	11	1	1	SKY COVER
2002	11	1	7	SKY COVER
2002	11	1	13	SKY COVER
2002	11	1	19	CEILING HT
2002	11	1	19	SKY COVER
2002	11	2	1	CEILING HT
2002	11	2	1	SKY COVER
2002	11	2	7	SKY COVER
2002	11	2	13	SKY COVER
2002	11	2	19	CEILING HT
2002	11	2	19	SKY COVER
2002	11	3	1	CEILING HT
2002	11	3	1	SKY COVER
2002	11	3	7	CEILING HT
2002	11	3	7	SKY COVER
2002	11	3	13	CEILING HT
2002	11	3	13	SKY COVER
2002	11	3	19	CEILING HT
2002	11	3	19	SKY COVER

2002	11	4	1	CEILING HT
2002	11	4	1	SKY COVER
2002	11	4	7	CEILING HT
2002	11	4	7	SKY COVER
2002	11	4	13	CEILING HT
2002	11	4	13	SKY COVER
2002	11	4	19	CEILING HT
2002	11	4	19	SKY COVER
2002	11	5	1	CEILING HT
2002	11	5	1	SKY COVER
2002	11	5	7	CEILING HT
2002	11	5	7	SKY COVER
2002	11	5	13	CEILING HT
2002	11	5	13	SKY COVER
2002	11	5	19	CEILING HT
2002	11	5	19	SKY COVER
2002	11	6	1	CEILING HT
2002	11	6	1	SKY COVER
2002	11	6	7	CEILING HT
2002	11	6	7	SKY COVER
2002	11	6	13	CEILING HT
2002	11	6	13	SKY COVER
2002	11	6	19	CEILING HT
2002	11	6	19	SKY COVER
2002	11	7	1	CEILING HT
2002	11	7	1	SKY COVER
2002	11	7	7	CEILING HT
2002	11	7	7	SKY COVER
2002	11	7	13	CEILING HT
2002	11	7	13	SKY COVER
2002	11	7	19	CEILING HT
2002	11	7	19	SKY COVER
2002	11	8	1	CEILING HT
2002	11	8	1	SKY COVER
2002	11	8	7	CEILING HT
2002	11	8	7	SKY COVER
2002	11	8	13	CEILING HT
2002	11	8	13	SKY COVER
2002	11	8	19	SKY COVER
2002	11	9	1	CEILING HT
2002	11	9	1	SKY COVER
2002	11	9	7	SKY COVER
2002	11	9	13	CEILING HT
2002	11	9	13	SKY COVER
2002	11	9	19	CEILING HT
2002	11	9	19	SKY COVER
2002	11	10	1	CEILING HT
2002	11	10	1	SKY COVER
2002	11	10	7	CEILING HT
2002	11	10	7	SKY COVER
2002	11	10	13	CEILING HT
2002	11	10	13	SKY COVER
2002	11	10	19	CEILING HT
2002	11	10	19	SKY COVER
2002	11	11	1	SKY COVER
2002	11	11	7	SKY COVER
2002	11	11	13	SKY COVER
2002	11	11	19	CEILING HT
2002	11	11	19	SKY COVER

2002	11	12	1	CEILING HT
2002	11	12	1	SKY COVER
2002	11	12	7	CEILING HT
2002	11	12	7	SKY COVER
2002	11	12	13	CEILING HT
2002	11	12	13	SKY COVER
2002	11	12	19	CEILING HT
2002	11	12	19	SKY COVER
2002	11	13	1	CEILING HT
2002	11	13	1	SKY COVER
2002	11	13	7	SKY COVER
2002	11	13	13	CEILING HT
2002	11	13	13	SKY COVER
2002	11	13	19	CEILING HT
2002	11	13	19	SKY COVER
2002	11	14	1	SKY COVER
2002	11	14	7	SKY COVER
2002	11	14	13	SKY COVER
2002	11	14	19	SKY COVER
2002	11	15	1	CEILING HT
2002	11	15	1	SKY COVER
2002	11	15	7	SKY COVER
2002	11	15	13	SKY COVER
2002	11	15	16	CEILING HT
2002	11	15	16	SKY COVER
2002	11	15	19	SKY COVER
2002	11	16	1	CEILING HT
2002	11	16	1	SKY COVER
2002	11	16	7	CEILING HT
2002	11	16	7	SKY COVER
2002	11	16	13	CEILING HT
2002	11	16	13	SKY COVER
2002	11	16	19	CEILING HT
2002	11	16	19	SKY COVER
2002	11	17	1	CEILING HT
2002	11	17	1	SKY COVER
2002	11	17	7	CEILING HT
2002	11	17	7	SKY COVER
2002	11	17	13	CEILING HT
2002	11	17	13	SKY COVER
2002	11	17	19	CEILING HT
2002	11	17	19	SKY COVER
2002	11	18	1	SKY COVER
2002	11	18	7	CEILING HT
2002	11	18	7	SKY COVER
2002	11	18	13	CEILING HT
2002	11	18	13	SKY COVER
2002	11	18	19	CEILING HT
2002	11	18	19	SKY COVER
2002	11	19	1	CEILING HT
2002	11	19	1	SKY COVER
2002	11	19	7	CEILING HT
2002	11	19	7	SKY COVER
2002	11	19	13	CEILING HT
2002	11	19	13	SKY COVER
2002	11	19	19	CEILING HT
2002	11	19	19	SKY COVER
2002	11	20	1	CEILING HT
2002	11	20	1	SKY COVER

2002	11	20	7	CEILING HT
2002	11	20	7	SKY COVER
2002	11	20	13	CEILING HT
2002	11	20	13	SKY COVER
2002	11	20	19	CEILING HT
2002	11	20	19	SKY COVER
2002	11	21	1	CEILING HT
2002	11	21	1	SKY COVER
2002	11	21	7	CEILING HT
2002	11	21	7	SKY COVER
2002	11	21	13	CEILING HT
2002	11	21	13	SKY COVER
2002	11	21	19	CEILING HT
2002	11	21	19	SKY COVER
2002	11	22	1	CEILING HT
2002	11	22	1	SKY COVER
2002	11	22	7	CEILING HT
2002	11	22	7	SKY COVER
2002	11	22	13	CEILING HT
2002	11	22	13	SKY COVER
2002	11	22	19	CEILING HT
2002	11	22	19	SKY COVER
2002	11	23	1	CEILING HT
2002	11	23	1	SKY COVER
2002	11	23	7	SKY COVER
2002	11	23	13	SKY COVER
2002	11	23	19	SKY COVER
2002	11	24	1	SKY COVER
2002	11	24	7	SKY COVER
2002	11	24	13	SKY COVER
2002	11	24	19	SKY COVER
2002	11	24	23	CEILING HT
2002	11	24	23	SKY COVER
2002	11	25	1	SKY COVER
2002	11	25	7	SKY COVER
2002	11	25	13	SKY COVER
2002	11	25	19	CEILING HT
2002	11	25	19	SKY COVER
2002	11	26	1	CEILING HT
2002	11	26	1	SKY COVER
2002	11	26	7	CEILING HT
2002	11	26	7	SKY COVER
2002	11	26	13	CEILING HT
2002	11	26	13	SKY COVER
2002	11	26	19	CEILING HT
2002	11	26	19	SKY COVER
2002	11	27	1	CEILING HT
2002	11	27	1	SKY COVER
2002	11	27	7	SKY COVER
2002	11	27	13	CEILING HT
2002	11	27	13	SKY COVER
2002	11	27	19	SKY COVER
2002	11	28	1	CEILING HT
2002	11	28	1	SKY COVER
2002	11	28	7	CEILING HT
2002	11	28	7	SKY COVER
2002	11	28	13	CEILING HT
2002	11	28	13	SKY COVER
2002	11	28	19	CEILING HT

2002	11	28	19	SKY COVER
2002	11	29	1	CEILING HT
2002	11	29	1	SKY COVER
2002	11	29	7	CEILING HT
2002	11	29	7	SKY COVER
2002	11	29	13	CEILING HT
2002	11	29	13	SKY COVER
2002	11	29	19	CEILING HT
2002	11	29	19	SKY COVER
2002	11	30	1	CEILING HT
2002	11	30	1	SKY COVER
2002	11	30	13	CEILING HT
2002	11	30	13	SKY COVER
2002	11	30	19	CEILING HT
2002	11	30	19	SKY COVER
2002	12	1	1	CEILING HT
2002	12	1	1	SKY COVER
2002	12	1	7	CEILING HT
2002	12	1	7	SKY COVER
2002	12	1	13	CEILING HT
2002	12	1	13	SKY COVER
2002	12	1	19	CEILING HT
2002	12	1	19	SKY COVER
2002	12	2	1	CEILING HT
2002	12	2	1	SKY COVER
2002	12	2	7	CEILING HT
2002	12	2	7	SKY COVER
2002	12	2	13	CEILING HT
2002	12	2	13	SKY COVER
2002	12	2	19	CEILING HT
2002	12	2	19	SKY COVER
2002	12	3	1	SKY COVER
2002	12	3	7	SKY COVER
2002	12	3	13	SKY COVER
2002	12	3	19	SKY COVER
2002	12	4	1	CEILING HT
2002	12	4	1	SKY COVER
2002	12	4	7	SKY COVER
2002	12	4	13	SKY COVER
2002	12	4	19	SKY COVER
2002	12	5	2	CEILING HT
2002	12	5	2	SKY COVER
2002	12	5	7	SKY COVER
2002	12	5	13	SKY COVER
2002	12	5	19	CEILING HT
2002	12	5	19	SKY COVER
2002	12	6	1	CEILING HT
2002	12	6	1	SKY COVER
2002	12	6	7	CEILING HT
2002	12	6	7	SKY COVER
2002	12	6	13	CEILING HT
2002	12	6	13	SKY COVER
2002	12	6	19	CEILING HT
2002	12	6	19	SKY COVER
2002	12	7	1	CEILING HT
2002	12	7	1	SKY COVER
2002	12	7	7	CEILING HT
2002	12	7	7	SKY COVER
2002	12	7	13	CEILING HT

2002	12	7	13	SKY COVER
2002	12	7	19	CEILING HT
2002	12	7	19	SKY COVER
2002	12	8	1	CEILING HT
2002	12	8	1	SKY COVER
2002	12	8	7	CEILING HT
2002	12	8	7	SKY COVER
2002	12	8	13	CEILING HT
2002	12	8	13	SKY COVER
2002	12	8	19	CEILING HT
2002	12	8	19	SKY COVER
2002	12	9	1	CEILING HT
2002	12	9	1	SKY COVER
2002	12	9	7	CEILING HT
2002	12	9	7	SKY COVER
2002	12	9	13	CEILING HT
2002	12	9	13	SKY COVER
2002	12	9	19	CEILING HT
2002	12	9	19	SKY COVER
2002	12	10	1	CEILING HT
2002	12	10	1	SKY COVER
2002	12	10	7	CEILING HT
2002	12	10	7	SKY COVER
2002	12	10	13	CEILING HT
2002	12	10	13	SKY COVER
2002	12	10	19	CEILING HT
2002	12	10	19	SKY COVER
2002	12	11	1	CEILING HT
2002	12	11	1	SKY COVER
2002	12	11	7	CEILING HT
2002	12	11	7	SKY COVER
2002	12	11	13	CEILING HT
2002	12	11	13	SKY COVER
2002	12	11	19	CEILING HT
2002	12	11	19	SKY COVER
2002	12	12	1	SKY COVER
2002	12	12	7	CEILING HT
2002	12	12	7	SKY COVER
2002	12	12	13	CEILING HT
2002	12	12	13	SKY COVER
2002	12	12	19	CEILING HT
2002	12	12	19	SKY COVER
2002	12	13	1	SKY COVER
2002	12	13	7	CEILING HT
2002	12	13	7	SKY COVER
2002	12	13	13	CEILING HT
2002	12	13	13	SKY COVER
2002	12	14	1	CEILING HT
2002	12	14	1	SKY COVER
2002	12	14	7	CEILING HT
2002	12	14	7	SKY COVER
2002	12	14	13	CEILING HT
2002	12	14	13	SKY COVER
2002	12	14	19	CEILING HT
2002	12	14	19	SKY COVER
2002	12	15	1	CEILING HT
2002	12	15	1	SKY COVER
2002	12	15	7	CEILING HT
2002	12	15	7	SKY COVER

2002	12	15	13	CEILING HT
2002	12	15	13	SKY COVER
2002	12	15	19	CEILING HT
2002	12	15	19	SKY COVER
2002	12	16	1	CEILING HT
2002	12	16	1	SKY COVER
2002	12	16	7	CEILING HT
2002	12	16	7	SKY COVER
2002	12	16	13	CEILING HT
2002	12	16	13	SKY COVER
2002	12	16	19	CEILING HT
2002	12	16	19	SKY COVER
2002	12	17	1	CEILING HT
2002	12	17	1	SKY COVER
2002	12	17	7	SKY COVER
2002	12	17	13	SKY COVER
2002	12	17	19	CEILING HT
2002	12	17	19	SKY COVER
2002	12	18	1	SKY COVER
2002	12	18	7	SKY COVER
2002	12	18	19	SKY COVER
2002	12	19	1	SKY COVER
2002	12	19	7	CEILING HT
2002	12	19	7	SKY COVER
2002	12	19	13	CEILING HT
2002	12	19	13	SKY COVER
2002	12	20	1	CEILING HT
2002	12	20	1	SKY COVER
2002	12	20	7	CEILING HT
2002	12	20	7	SKY COVER
2002	12	20	13	CEILING HT
2002	12	20	13	SKY COVER
2002	12	20	19	CEILING HT
2002	12	20	19	SKY COVER
2002	12	21	1	SKY COVER
2002	12	21	7	SKY COVER
2002	12	21	13	SKY COVER
2002	12	21	19	CEILING HT
2002	12	21	19	SKY COVER
2002	12	22	1	SKY COVER
2002	12	22	7	SKY COVER
2002	12	22	13	SKY COVER
2002	12	22	19	CEILING HT
2002	12	22	19	SKY COVER
2002	12	23	1	CEILING HT
2002	12	23	1	SKY COVER
2002	12	23	7	CEILING HT
2002	12	23	7	SKY COVER
2002	12	23	13	CEILING HT
2002	12	23	13	SKY COVER
2002	12	23	19	CEILING HT
2002	12	23	19	SKY COVER
2002	12	24	1	SKY COVER
2002	12	24	7	CEILING HT
2002	12	24	7	SKY COVER
2002	12	24	13	SKY COVER
2002	12	24	19	CEILING HT
2002	12	24	19	SKY COVER
2002	12	25	1	CEILING HT

2002	12	25	1	SKY COVER
2002	12	25	7	CEILING HT
2002	12	25	7	SKY COVER
2002	12	25	13	CEILING HT
2002	12	25	13	SKY COVER
2002	12	25	19	CEILING HT
2002	12	25	19	SKY COVER
2002	12	26	1	CEILING HT
2002	12	26	1	SKY COVER
2002	12	26	7	CEILING HT
2002	12	26	7	SKY COVER
2002	12	26	13	CEILING HT
2002	12	26	13	SKY COVER
2002	12	26	19	CEILING HT
2002	12	26	19	SKY COVER
2002	12	27	1	CEILING HT
2002	12	27	1	SKY COVER
2002	12	27	7	CEILING HT
2002	12	27	7	SKY COVER
2002	12	27	13	CEILING HT
2002	12	27	13	SKY COVER
2002	12	27	19	CEILING HT
2002	12	27	19	SKY COVER
2002	12	28	1	CEILING HT
2002	12	28	1	SKY COVER
2002	12	28	7	CEILING HT
2002	12	28	7	SKY COVER
2002	12	28	13	CEILING HT
2002	12	28	13	SKY COVER
2002	12	28	19	CEILING HT
2002	12	28	19	SKY COVER
2002	12	29	1	CEILING HT
2002	12	29	1	SKY COVER
2002	12	29	7	CEILING HT
2002	12	29	7	SKY COVER
2002	12	29	13	CEILING HT
2002	12	29	13	SKY COVER
2002	12	29	19	CEILING HT
2002	12	29	19	SKY COVER
2002	12	30	1	CEILING HT
2002	12	30	1	SKY COVER
2002	12	30	7	CEILING HT
2002	12	30	7	SKY COVER
2002	12	30	13	CEILING HT
2002	12	30	13	SKY COVER
2002	12	30	19	CEILING HT
2002	12	30	19	SKY COVER
2002	12	31	1	CEILING HT
2002	12	31	1	SKY COVER
2002	12	31	7	CEILING HT
2002	12	31	7	SKY COVER
2002	12	31	13	SKY COVER
2002	12	31	19	SKY COVER

Table B-2. Filled Onsite Meteorological Data

Year	Month	Day	Hour	Temperature Filled Deg. C	Wind Speed Filled m/s	Wind Direction Filled Degrees
2000	4	26	900	N/A	5.9295	322
2000	4	26	1000	11.195	5.9295	322
2000	6	25	600	14.21	5.132	336
2000	6	25	700	13.81	4.5665	320
2000	6	25	1100	15.015	3.2345	4
2000	6	27	2300	10.635	1.2	28
2000	6	27	2400	10.635	1.2	18
2000	6	28	100	10.635	1.2	8
2000	6	28	200	10.635	1.2	358
2000	6	28	300	10.635	1.2	348
2000	6	28	400	10.635	1.2	338
2000	6	28	500	10.635	1.2	328
2000	6	28	600	10.635	1.2	318
2000	6	30	400	10	1.4	35
2000	6	30	500	11	1.4	355
2000	6	30	600	12	1.4	315
2000	7	1	100	12.72	1.2	285
2000	7	1	200	11.51	1.2	282
2000	7	1	300	10.36	1.2	279
2000	7	1	400	9.64	1.2	276
2000	7	1	500	8.48	1.2	273
2000	7	1	600	10.25	1.2	270
2000	7	1	900	25.445	7.651	236
2000	7	1	2300	18.33	1.2	311
2000	7	1	2400	18.33	1.2	325
2000	7	2	100	18.33	1.2	338
2000	7	2	200	18.33	1.2	352
2000	7	2	300	18.33	1.2	5
2000	7	2	400	18.33	1.2	19
2000	7	2	500	18.33	1.2	32
2000	7	2	600	18.33	1.2	46
2000	7	2	2000	25.02	3.012	179
2000	7	2	2100	26.09	4.627	186
2000	7	2	2200	21.35	1.824	193
2000	7	2	2300	19.3	1.6	199
2000	7	2	2400	18.49	1.6	206
2000	7	3	100	18.32	1.6	212
2000	7	3	200	17.45	1.6	219
2000	7	3	300	17.06	1.6	226
2000	7	3	400	15.25	1.6	232
2000	7	3	500	15.215	1.6	239
2000	7	3	600	15.18	1.6	245
2000	7	3	700	17.35	2.655	252
2000	7	4	500	15.215	2.1925	292
2000	7	5	100	12.31	3.482	293
2000	7	5	300	13.165	1.6	293

2000	7	5	400	13.165	1.6	288
2000	7	5	500	13.165	1.6	283
2000	7	5	600	13.165	1.6	278
2000	7	5	2100	24.955	4.627	155
2000	7	5	2200	21.88	1.824	163
2000	7	5	2300	20.65	2.258	170
2000	7	5	2400	20.445	2.771	178
2000	7	6	100	20.02	1.76	185
2000	7	6	200	19.33	3.443	192
2000	7	6	300	19.155	3.074	200
2000	7	6	400	18.245	1.816	207
2000	7	6	500	17.5575	1.752	215
2000	7	6	600	17.525	1.617	222
2000	7	6	700	19.19	2.655	229
2000	7	6	800	20.505	2.742	237
2000	7	6	2100	24.955	4.627	257
2000	7	6	2200	21.88	1.824	261
2000	7	6	2300	20.65	2.258	265
2000	7	6	2400	20.445	2.771	269
2000	7	7	100	20.02	1.76	273
2000	7	7	200	19.33	3.443	277
2000	7	7	300	19.155	3.074	281
2000	7	7	400	18.245	1.816	285
2000	7	7	500	17.5575	1.752	289
2000	7	7	600	17.525	1.617	293
2000	7	7	2000	24.77	3.012	134
2000	7	7	2100	23.82	4.627	146
2000	7	7	2200	22.41	1.824	158
2000	7	7	2300	22	2.258	170
2000	7	7	2400	22.4	2.771	182
2000	7	8	100	21.72	1.76	194
2000	7	8	200	21.21	3.443	206
2000	7	8	300	21.25	3.074	218
2000	7	8	400	21.24	1.816	230
2000	7	8	500	19.9	1.752	242
2000	7	8	600	19.87	1.617	254
2000	7	8	700	21.03	2.655	266
2000	7	9	2100	21.525	4.372	256
2000	7	9	2200	20.115	2.131	274
2000	7	9	2300	19.43	1.356	292
2000	7	9	2400	18.83	1.706	310
2000	7	10	100	17.795	2.251	328
2000	7	10	200	16.9	2.275	346
2000	7	10	300	16.61	1.518	4
2000	7	10	400	15.68	2.447	22
2000	7	10	500	14.98	1.752	40
2000	7	10	600	15.14	1.617	58
2000	7	10	700	17.535	3.045	76
2000	7	11	300	12.6	1.6	278
2000	7	11	400	12.6	1.6	281
2000	7	11	500	12.6	1.6	283
2000	7	11	600	12.6	1.6	286

2000	7	12	2100	23.82	1.4	131
2000	7	12	2200	22.41	1.4	137
2000	7	12	2300	22	1.4	144
2000	7	12	2400	22.4	1.4	150
2000	7	13	100	21.72	1.4	157
2000	7	13	200	21.21	1.4	163
2000	7	13	300	21.25	1.4	170
2000	7	13	400	21.24	1.4	176
2000	7	13	500	19.9	1.4	183
2000	7	13	600	19.87	1.4	189
2000	7	13	700	21.03	1.4	196
2000	7	13	800	22.74	1.4	202
2000	7	13	2000	24.77	1.4	119
2000	7	13	2100	23.82	1.4	128
2000	7	13	2200	22.41	1.4	137
2000	7	13	2300	22	1.4	147
2000	7	13	2400	22.4	1.4	156
2000	7	14	100	21.72	1.4	166
2000	7	14	200	21.21	1.4	175
2000	7	14	300	21.25	1.4	184
2000	7	14	400	21.24	1.4	194
2000	7	14	500	19.9	1.4	203
2000	7	14	600	19.87	1.4	213
2000	7	14	700	21.03	1.4	222
2000	7	14	800	22.74	1.4	231
2000	7	14	1900	26.52	1.6	347
2000	7	14	2000	24.77	1.6	344
2000	7	14	2100	23.82	1.6	341
2000	7	14	2200	22.41	1.6	338
2000	7	14	2300	22	1.6	335
2000	7	14	2400	22.4	1.6	332
2000	7	15	100	21.72	1.6	329
2000	7	15	200	21.21	1.6	326
2000	7	15	300	21.25	1.6	322
2000	7	15	400	21.24	1.6	319
2000	7	15	500	19.9	1.6	316
2000	7	15	600	19.87	1.6	313
2000	7	15	700	21.03	1.6	310
2000	7	15	800	22.74	1.6	307
2000	7	15	900	23.69	1.6	304
2000	7	15	1000	25.06	1.6	301
2000	7	15	1700	29.075	1.4	300
2000	7	15	1800	27.885	1.4	309
2000	7	15	1900	24.47	1.4	319
2000	7	15	2000	21.63	1.4	328
2000	7	15	2100	19.36	1.4	337
2000	7	15	2200	18.18	1.4	347
2000	7	15	2300	17.185	1.4	356
2000	7	15	2400	15.86	1.4	5
2000	7	16	100	14.195	1.4	14
2000	7	16	200	12.805	1.4	24
2000	7	16	300	16.61	1.4	33

2000	7	16	400	15.68	1.4	42
2000	7	16	500	14.98	1.4	52
2000	7	16	600	15.14	1.4	61
2000	7	16	700	17.335	4.475	70
2000	7	16	800	20.02	3.437	80
2000	7	16	900	21	5.938	89
2000	7	16	1000	22	6.369	98
2000	7	16	1100	22.7	5.251	107
2000	7	16	1900	24.47	5.334	130
2000	7	16	2000	21.63	2.537	127
2000	7	16	2100	19.36	3.739	123
2000	7	16	2200	18.18	2.621	120
2000	7	16	2300	17.185	1.356	116
2000	7	16	2400	15.86	1.706	113
2000	7	17	100	14.195	1.17	109
2000	7	17	200	12.805	1.503	106
2000	7	17	300	16.61	1.518	102
2000	7	17	400	15.68	2.447	99
2000	7	17	500	14.98	1.752	95
2000	7	17	600	15.14	1.617	92
2000	7	17	700	17.335	4.475	88
2000	7	17	2300	16	1.4	246
2000	7	17	2400	15.86	1.4	252
2000	7	18	100	14.195	1.4	258
2000	7	18	200	12.805	1.4	265
2000	7	18	300	16.61	1.4	271
2000	7	18	400	15.68	1.4	277
2000	7	18	500	14.98	1.4	283
2000	7	18	600	15.14	1.4	289
2000	7	18	700	17.335	1.4	296
2000	7	18	800	20.02	1.4	302
2000	7	18	2100	17.7	1.6	108
2000	7	18	2200	17.5	1.6	93
2000	7	18	2300	17.185	1.6	78
2000	7	18	2400	15.86	1.6	63
2000	7	19	100	14.195	1.6	48
2000	7	19	200	12.805	1.6	33
2000	7	19	300	16.61	1.6	18
2000	7	19	400	15.68	1.6	3
2000	7	19	500	14.98	1.6	348
2000	7	19	600	15.14	1.6	333
2000	7	19	700	17.335	1.6	318
2000	11	13	900	N/A	N/A	287
2000	11	13	1000	-10.2635	N/A	287
2000	11	13	1100	-10.2635	N/A	N/A
2001	3	16	100	-4.564	0.433	304
2001	3	16	200	-5.074	0.637	324
2001	3	16	300	-6.016	0.981	298
2001	3	16	400	-6.11	1.64	280
2001	3	16	500	-6.57	1.24	292
2001	3	16	600	-6.408	0.66	287
2001	3	16	700	-5.94	1.214	277

2001	3	16	800	-0.154	3.699	280
2001	3	16	900	2.289	4.211	285
2001	3	16	1000	3.738	5.26	315
2001	3	16	1100	3.989	4.258	321
2001	3	16	1200	5.569	3.611	291
2001	3	16	1300	7.08	4.068	288
2001	3	16	1400	7.34	3.387	338
2001	3	16	1500	7.73	4.353	299
2001	3	16	1600	6.895	2.16	18
2001	3	16	1700	7	2.896	336
2001	3	16	1800	5.636	3.196	12
2001	3	16	1900	2.209	2.034	358
2001	3	16	2000	0.479	0.912	267
2001	3	16	2100	-1.156	0.928	280
2001	3	16	2200	-2.562	1.002	287
2001	3	16	2300	-3.263	0.667	253
2001	3	16	2400	-4.088	0.583	270
2001	3	17	100	-4.564	0.433	291
2001	3	17	200	-5.074	0.637	312
2001	3	17	300	-6.016	0.981	334
2001	3	17	400	-6.11	1.64	355
2001	3	17	500	-6.57	1.24	17
2001	3	17	600	-6.408	0.66	38
2001	3	17	700	-5.94	1.214	59
2001	5	22	900	12.19	7.3545	320
2001	11	7	1000	5.3395	3.416	319
2002	4	24	900	0.536	5.135	285
2002	11	5	1400	7.9	10.395	274

Table B-3. Filled Mixing Height Data

Year	Month	Day	AM Mixing	PM Mixing
1998	1	3	349	847
1998	1	9	303	N/A
1998	1	10	188	608
1998	1	11	N/A	465
1998	1	12	200	N/A
1998	1	16	208	N/A
1998	1	20	N/A	508
1998	3	7	522	N/A
1998	4	22	393	N/A
1998	4	23	225	N/A
1998	4	25	120	N/A
1998	4	26	120	N/A
1998	4	27	120	N/A
1998	4	29	N/A	3530
1998	5	1	57	3308
1998	5	2	57	3308
1998	5	3	57	3308
1998	5	4	57	3308
1998	5	5	57	3308
1998	5	6	384	3218
1998	5	7	384	3218
1998	5	8	384	3218
1998	5	9	384	3218
1998	5	10	384	3218
1998	5	19	N/A	3590
1998	5	22	N/A	3620
1998	5	24	866	N/A
1998	5	26	58	3734
1998	5	28	546	N/A
1998	5	29	546	3758
1998	5	30	1179	2721
1998	5	31	1179	1684
1998	6	2	1450	N/A
1998	6	6	912	1439
1998	6	7	912	1439
1998	6	8	586	1701
1998	6	9	260	1964
1998	6	10	260	1964
1998	6	15	1687	2327
1998	6	19	514	2234
1998	6	20	408	2234
1998	6	21	302	3218
1998	6	22	196	3218
1998	6	26	312	N/A
1998	6	29	95	2842
1998	7	1	N/A	2276
1998	7	6	156	3920
1998	7	9	N/A	3615

1998	7	10	N/A	3615
1998	7	11	N/A	4547
1998	7	12	377	4547
1998	7	14	N/A	4547
1998	7	16	22	4104
1998	7	19	16	4188
1998	7	22	113	N/A
1998	8	6	59	N/A
1998	8	10	90	N/A
1998	8	22	N/A	3208
1998	8	23	176	2965
1998	9	4	55	N/A
1998	9	5	88	N/A
1998	9	8	232	N/A
1998	9	16	16	N/A
1998	9	29	42	N/A
1998	10	9	132	N/A
1998	10	10	181	N/A
1998	10	13	181	N/A
1998	10	14	454	N/A
1998	10	15	727	N/A
1998	10	16	N/A	1870
1998	10	17	N/A	1108
1998	12	15	236	N/A
1998	12	18	N/A	598
1998	12	19	N/A	359
1998	12	20	562	N/A
1998	12	23	578	N/A
1998	12	29	508	N/A
2000	1	4	644	N/A
2000	1	9	337	N/A
2000	1	10	213	1416
2000	1	14	358	1270
2000	1	23	256	N/A
2000	2	4	386	N/A
2000	2	12	N/A	1154
2000	2	27	162	1892
2000	3	2	62	N/A
2000	3	28	836	N/A
2000	4	5	252	N/A
2000	4	6	371	N/A
2000	4	9	80	N/A
2000	4	15	N/A	1439
2000	4	18	88	1883
2000	4	19	59	N/A
2000	4	27	39	N/A
2000	4	29	N/A	3412
2000	4	30	126	N/A
2000	5	2	70	N/A
2000	5	3	22	N/A
2000	5	5	N/A	3317
2000	5	6	549	N/A

2000	5	16	746	N/A
2000	5	17	N/A	2471
2000	5	23	398	N/A
2000	5	28	36	N/A
2000	6	3	N/A	2954
2000	6	5	580	N/A
2000	6	6	N/A	2563
2000	6	7	N/A	2563
2000	6	8	N/A	3313
2000	6	10	N/A	3688
2000	6	11	N/A	3056
2000	6	12	73	N/A
2000	6	15	N/A	2595
2000	6	17	N/A	3268
2000	6	21	1340	N/A
2000	6	22	17	N/A
2000	6	29	18	N/A
2000	7	2	N/A	3926
2000	7	3	N/A	3926
2000	7	4	N/A	4707
2000	7	5	32	4707
2000	7	7	N/A	4814
2000	7	9	N/A	4384
2000	7	11	N/A	4182
2000	7	12	216	N/A
2000	7	13	216	4432
2000	7	14	110	N/A
2000	7	15	110	N/A
2000	7	18	N/A	2005
2000	7	19	115	3141
2000	7	20	60	4277
2000	7	22	23	N/A
2000	7	23	23	4447
2000	7	24	23	N/A
2000	7	25	23	4525
2000	7	26	N/A	4416
2000	7	27	N/A	4308
2000	7	28	27	N/A
2000	7	29	27	N/A
2000	7	30	27	4778
2000	8	1	N/A	5072
2000	8	2	20	4107
2000	8	3	90	N/A
2000	8	6	N/A	4300
2000	8	7	N/A	4373
2000	8	8	8	N/A
2000	8	9	91	4445
2000	8	10	91	4170
2000	8	11	N/A	3895
2000	8	13	N/A	3954
2000	8	15	118	N/A
2000	8	17	114	N/A

2000	8	19	N/A	2513
2000	8	20	N/A	3191
2000	8	21	N/A	3870
2000	8	23	N/A	3957
2000	8	24	54	N/A
2000	8	29	354	N/A
2000	9	3	390	3846
2000	9	4	N/A	3879
2000	9	5	28	3913
2000	9	11	94	N/A
2000	9	14	33	3097
2000	9	15	22	N/A
2000	9	17	108	N/A
2000	9	19	N/A	3036
2000	10	1	31	N/A
2000	10	2	178	N/A
2000	10	7	829	N/A
2000	10	8	467	N/A
2000	10	9	105	2105
2000	10	11	210	N/A
2000	10	24	1149	1254
2000	10	31	N/A	1564
2000	11	5	N/A	480
2000	11	9	N/A	554
2000	11	11	634	N/A
2000	11	13	396	474
2000	11	14	396	474
2000	11	16	762	N/A
2000	12	2	178	500
2000	12	10	N/A	690
2000	12	11	222	N/A
2000	12	13	384	647
2000	12	16	496	N/A
2000	12	20	174	384
2000	12	21	340	N/A
2001	1	27	300	N/A
2001	2	7	N/A	306
2001	2	8	347	N/A
2001	2	14	472	N/A
2001	3	20	44	N/A
2001	3	23	320	N/A
2001	4	2	376	N/A
2001	4	7	1608	1302
2001	4	15	304	N/A
2001	4	19	684	N/A
2001	4	23	365	2002
2001	4	26	22	N/A
2001	4	28	364	N/A
2001	5	1	1408	N/A
2001	5	7	472	N/A
2001	5	8	352	2543
2001	5	9	232	3369

2001	5	11	67	N/A
2001	5	13	N/A	3495
2001	5	14	N/A	3209
2001	5	15	N/A	2924
2001	5	19	N/A	2672
2001	5	20	130	3354
2001	5	23	21	N/A
2001	5	24	150	N/A
2001	5	25	279	3506
2001	5	29	N/A	2439
2001	5	31	228	N/A
2001	6	2	364	N/A
2001	6	6	49	N/A
2001	6	8	28	N/A
2001	6	9	N/A	3934
2001	6	10	N/A	4075
2001	6	11	N/A	4215
2001	6	12	836	N/A
2001	6	16	N/A	4041
2001	6	17	N/A	1961
2001	6	20	917	N/A
2001	6	21	12	N/A
2001	6	22	N/A	3973
2001	6	23	N/A	3973
2001	6	25	45	3966
2001	6	26	158	N/A
2001	7	1	N/A	3633
2001	7	2	N/A	4451
2001	7	3	16	N/A
2001	7	4	16	N/A
2001	7	5	N/A	4211
2001	7	6	59	N/A
2001	7	7	89	N/A
2001	7	8	N/A	3660
2001	7	16	N/A	3089
2001	7	17	N/A	3089
2001	7	18	N/A	3089
2001	7	19	7	3310
2001	7	20	N/A	3310
2001	7	21	N/A	3310
2001	7	22	60	3532
2001	7	23	N/A	3532
2001	7	24	N/A	3532
2001	7	27	134	2696
2001	7	30	N/A	4694
2001	8	1	559	4568
2001	8	2	N/A	4090
2001	8	3	N/A	3612
2001	8	5	N/A	3708
2001	8	8	N/A	2660
2001	8	10	N/A	2358
2001	8	11	N/A	2968

2001	8	12	N/A	3579
2001	8	13	408	N/A
2001	8	17	N/A	4106
2001	8	18	104	N/A
2001	8	19	187	N/A
2001	8	25	36	N/A
2001	8	28	N/A	3271
2001	8	29	18	N/A
2001	9	3	79	N/A
2001	9	4	107	4176
2001	9	12	79	N/A
2001	9	21	21	N/A
2001	9	22	10	N/A
2001	9	24	7	N/A
2001	9	25	29	3648
2001	9	26	29	N/A
2001	9	27	29	N/A
2001	10	1	17	N/A
2001	10	3	122	N/A
2001	10	4	N/A	1337
2001	10	8	392	N/A
2001	10	19	117	N/A
2001	10	20	117	N/A
2001	10	21	117	N/A
2001	10	23	N/A	2468
2001	11	7	N/A	2063
2001	11	18	162	1273
2001	11	24	930	N/A
2001	11	26	N/A	448
2001	11	27	418	N/A
2001	12	18	N/A	729
2001	12	30	197	N/A
2002	1	9	N/A	690
2002	1	24	136	N/A
2002	2	12	270	577
2002	3	2	357	N/A
2002	3	3	357	N/A
2002	3	6	113	N/A
2002	3	7	56	N/A
2002	3	8	N/A	1861
2002	3	16	63	N/A
2002	3	17	123	N/A
2002	3	20	N/A	996
2002	3	24	N/A	632
2002	4	4	247	N/A
2002	4	5	180	N/A
2002	4	6	N/A	2816
2002	4	9	763	N/A
2002	4	17	N/A	2067
2002	4	22	N/A	2860
2002	5	1	N/A	3030
2002	5	4	N/A	2912

2002	5	5	N/A	2376
2002	5	14	73	N/A
2002	5	20	90	N/A
2002	5	21	894	N/A
2002	5	23	1168	3098
2002	5	25	312	N/A
2002	5	27	9	N/A
2002	5	28	N/A	3786
2002	5	31	73	N/A
2002	6	1	102	N/A
2002	6	5	N/A	2251
2002	6	6	N/A	1331
2002	6	7	170	N/A
2002	6	8	N/A	1558
2002	6	14	0	N/A
2002	6	15	0	N/A
2002	6	16	N/A	0
2002	6	17	0	0
2002	6	18	0	0
2002	6	19	0	0
2002	6	20	N/A	0
2002	6	23	N/A	0
2002	6	24	N/A	0
2002	6	25	0	0
2002	6	26	0	0
2002	6	27	0	N/A
2002	6	28	N/A	0
2002	6	29	N/A	0
2002	6	30	98	0
2002	7	3	774	N/A
2002	7	4	N/A	4196
2002	7	8	N/A	2832
2002	7	10	0	N/A
2002	7	11	0	N/A
2002	7	12	0	N/A
2002	7	13	0	N/A
2002	7	14	0	0
2002	7	15	0	0
2002	7	16	0	0
2002	7	24	N/A	1792
2002	7	25	203	N/A
2002	7	29	N/A	3985
2002	7	30	26	N/A
2002	7	31	N/A	3068
2002	8	4	N/A	3176
2002	8	8	162	N/A
2002	8	14	106	N/A
2002	8	18	0	N/A
2002	8	19	0	N/A
2002	8	21	N/A	4420
2002	8	23	194	N/A
2002	8	25	182	0

2002	8	26	N/A	0
2002	8	30	N/A	0
2002	8	31	N/A	0
2002	9	1	0	0
2002	9	2	0	0
2002	9	3	0	0
2002	9	5	N/A	4204
2002	9	6	421	N/A
2002	9	14	0	N/A
2002	9	15	0	N/A
2002	9	23	0	N/A
2002	9	24	0	N/A
2002	9	26	0	N/A
2002	9	27	0	N/A
2002	10	1	N/A	2198
2002	10	8	5	N/A
2002	10	10	0	N/A
2002	10	11	0	3036
2002	10	13	0	N/A
2002	10	14	0	N/A
2002	10	15	0	N/A
2002	10	18	27	N/A
2002	10	20	21	N/A
2002	10	22	378	1337
2002	10	26	36	N/A
2002	10	29	N/A	606
2002	11	19	115	N/A
2002	11	24	0	0
2002	11	25	0	0
2002	11	26	0	N/A
2002	12	23	106	N/A