Air Quality Permitting
Statement of Basis

May 17, 2006

Permit to Construct No. P-060403

Raft River Energy I LLC
Raft River Geothermal Power Plant – Unit 1
Malta, ID

Facility ID No. 031-00030

Prepared by:

Shawnee Chen, P.E.
Senior Engineer
AIR QUALITY DIVISION

FINAL
# Table of Contents

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURES ............................................................... 3

1. PURPOSE .......................................................................................................................... 4

2. FACILITY DESCRIPTION ............................................................................................... 4

3. FACILITY / AREA CLASSIFICATION ............................................................................. 4

4. APPLICATION SCOPE ................................................................................................... 4

5. PERMIT ANALYSIS ......................................................................................................... 5

6. PERMIT FEES ................................................................................................................ 7

7. PERMIT REVIEW ........................................................................................................... 7

8. RECOMMENDATION ....................................................................................................... 7

APPENDIX A - AIRS INFORMATION ................................................................................. 8

APPENDIX B - EMISSIONS INVENTORY .............................................................................. 10

APPENDIX C - MODELING REVIEW .................................................................................. 12
Acronyms, Units, and Chemical Nomenclatures

acfm actual cubic feet per minute
AFS AIRS Facility Subsystem
AIRS Aerometric Information Retrieval System
AQCR Air Quality Control Region
CO carbon monoxide
DEQ Department of Environmental Quality
EI emissions inventory
EPA U.S. Environmental Protection Agency
HAP Hazardous Air Pollutant
IDAPA a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr pound per hour
MACT Maximum Achievable Control Technology
NAAQS national ambient air quality standard
NESHAP National Emission Standards for Hazardous Air Pollutants
NOx nitrogen oxides
NSPS New Source Performance Standards
PM$_{10}$ particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD Prevention of Significant Deterioration
PTC permit to construct
Rules Rules for the Control of Air Pollution in Idaho
SCL significant contribution level
SIC Standard Industrial Classification
SIP State Implementation Plan
SM Synthetic Minor
SO$_2$ sulfur dioxide
TAP toxic air pollutant
TDS total dissolved solids
T/yr tons per year
µg/m$^3$ micrograms per cubic meter
UTM Universal Transverse Mercator
VOC volatile organic compound
1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

This is a geothermal energy (electricity) production plant. Hot water is pumped from the geothermal reservoir located about one mile beneath the ground surface, below both an upper and intermediate aquifer, to the power plant using existing wells that were drilled as part of the former department of energy facility. The hot geothermal fluid will be delivered to the power plant at a temperature of approximately 280 degrees Fahrenheit (°F), where it will flow through heat exchangers that are used to transfer heat to a “working” fluid that has a lower boiling point. For this project the working fluid will be iso-pentane. The heated iso-pentane vaporizes and is sent through two turbines and a single generator to generate power, much like a steam turbine. The vapor discharging from the turbines is then condensed in water-cooled condensers, and pumped back to the pre-heaters and vaporizers for reuse. The working fluid is in a closed loop system, and thus continually cycles through the system. After the heat is extracted from the geothermal fluid, the geothermal fluid is injected back into the geothermal reservoir, forming another closed loop system.

The cooling water for water-cooled condensers is provided by a counter flow cooling tower, with a circulating water flow rate of approximately 48,000 gallons per minute. The cooling tower make-up water source comes from groundwater wells and/or surface water, but brine water (geothermal fluid) may also be used. The cooling tower drift eliminators remove liquid droplets from the cooling tower air flow. They reduce particulate matter emissions.

3. FACILITY / AREA CLASSIFICATION

Raft River Energy I LLC is defined as a minor facility because its potential to emit is less than all major source thresholds. The Standard Industrial Classification (SIC) defining the facility is 4911. The Aerometric Information Retrieval System (AIRS) classification is “B.”

The facility is located within AQCR 63 and UTM zone 12. The facility is located in Cassia County which is designated as attainment or unclassifiable for all criteria pollutants (PM$_{10}$, CO, NO$_x$, SO$_2$, lead, and ozone).

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at Raft River Energy I LLC, Raft River Geothermal Power Plant - Unit 1. This required information is entered into the EPA AIRS database.

4. APPLICATION SCOPE

This is an initial Permit to Construct (PTC) for a new geothermal energy (electricity) production plant. The plant will be located at 15 Miles South of Malta, Idaho, Township 15 south Range 26 East Sections 22 and 23. The emissions unit from the plant is the cooling tower. There will be fugitive leaks of iso-pentane from the piping components of the plant.

4.1 Application Chronology

February 1, 2006 DEQ received the application.
March 9, 2006 DEQ determined application complete.
5. **PERMIT ANALYSIS**

This section of the Statement of Basis describes the regulatory requirements for this PTC action.

5.1 **Equipment Listing**

**Cooling Tower**

Manufacturer: To be determined  
Type: Induced Draft  
Maximum recirculating rate: 48,000 gallons per minute  
Liquid draft: 0.005%  
Total number of cells: 4 or 6

Stack information of each cooling tower cell  
Stack height: 40 feet  
Stack diameter: 15 feet  
Stack flowrate: 1,095,000 acfm per cell  
Stack temperature: 77 °F

Cooling tower dimensions  
Height: 25 feet  
Width: 55 feet  
Length: 240 feet

5.2 **Emissions Inventory**

A detailed emissions inventory (EI) was provided in the PTC application and can be found in Appendix B. The EI has been reviewed by DEQ and appears to accurately reflect emissions from the facility. Table 5.1 provides a summary of the EI.

<table>
<thead>
<tr>
<th>Table 5.1 EMISSIONS ESTIMATES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PM\text{_{10}}</strong></td>
</tr>
<tr>
<td><strong>Cooling Tower</strong></td>
</tr>
<tr>
<td>Using Groundwater, or surface water as cooling tower make-up water</td>
</tr>
<tr>
<td>Using brine water (i.e. geothermal fluid) as cooling tower make-up water</td>
</tr>
</tbody>
</table>

The VOC fugitive emissions from the piping components that transfer iso-pentane were estimated in the application. They are about 11 tons per year.

5.3 **Modeling**

The facility has demonstrated compliance to DEQ’s satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. The facility’s PM\text{_{10}} ambient impact is less than the respective significant contribution level (SCL). Therefore, no full impact modeling analysis was required in accordance with State of Idaho Air Quality Modeling Guideline. The detailed modeling analysis is included in Appendix C. A summary of the modeling analysis is presented in Table 5.2.

<table>
<thead>
<tr>
<th>Table 5.2 IMPACT ANALYSIS RESULTS FOR PM\text{_{10}}</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pollutant</strong></td>
</tr>
<tr>
<td>PM\text{_{10}}</td>
</tr>
<tr>
<td>Annual</td>
</tr>
</tbody>
</table>
5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.201 ....................... Permit to Construct Required

The facility’s proposed project does not meet PTC exemption criteria contained in Sections 220 through 223 of the Rules. Therefore, a PTC is required.

IDAPA 58.01.01.203.02 ...................... NAAQS

"No permit to construct shall be granted for a new or modified stationary source unless the applicant shows to the satisfaction of the Department all of the following: ....02. NAAQS...."

The facility has demonstrated compliance, to DEQ’s satisfaction, that this project will not cause or significantly contribute to a violation of any ambient air quality standards of PM$_{10}$. The facility’s PM$_{10}$ ambient impact is less than the respective SCL. The summary of the modeling analysis is in Table 5.2. Detailed modeling analysis is included in Appendix B.

IDAPA 58.01.01.625 ......................... Visible Emissions

This regulation states that any point of emission shall not have a discharge of any air pollutant for a period aggregating more than three minutes in any 60-minute period of greater than 20% opacity.

The stack of each cooling tower cell at this facility is subject to this regulation. However, the possibility of the exceedance is very small. Therefore, no specific monitoring is required.

40 CFR 61 and 63 ......................... National Emission Standards for Hazardous Air Pollutants & MACT

This facility is not subject to NESHAP or MACT.

Non Applicability Determination

40 CFR 60 Subpart Kb ....................... New Source Performance Standards

The iso-pentane storage pressure vessel is not subject to 40 CFR 60 Subpart Kb, because the subpart does not apply to pressure vessels designed to operate at 204.9Kpa (29.71 psia) and without emissions to the atmosphere (40 CFR 60.110b(d)(2)). The iso-pentane storage pressure vessel is rated at over 100 psig (approximately 114 psia). The vapor pressure of pentane is less than 10 psig, even at summer ambient temperatures; therefore, the emission from the storage unit will be essentially zero except for some vapor loss due to filling.

IDAPA 58.01.01.203.03 .................... Toxic Air Pollutants (TAP)

Iso-pentane is not a listed TAP in IDAPA 58.01.01.585 and 586, neither a listed EPA HAP. Therefore, a TAP analysis for this permit is not required.

5.5 Permit Conditions Review

5.5.1 Permit Condition 1.1 states the purpose of this permit action.

5.5.2 Permit Condition 2.1 provides the process description.
5.5.3 Permit Condition 2.2 states that emissions from the cooling tower are uncontrolled.

5.5.4 Permit Condition 2.3 lists the maximum PM$_{10}$ emissions rates from the cooling tower based on design parameters.

5.5.5 Permit Condition 2.4 lists the opacity limit.

2.5.6 Permit Condition 2.5 lists the maximum total dissolved solids (TDS) in the recirculation water. It was calculated based on design parameters in the application.

2.5.7 Permit Condition 2.6 requires the permittee to keep the record of TDS on site. As long as the permittee operates the cooling tower as it is designed, the facility meets the opacity limit and PM$_{10}$ NAAQS. Therefore, no specific monitoring is required.

6. PERMIT FEES

Raft River Energy I LLC submitted a $1,000 PTC application fee on February 1, 2006, in accordance with IDAPA 58.01.01.224. The total emissions of Raft River Energy I LLC is between 10 to 100 tons range. In accordance with IDAPA 58.01.01.225, the PTC processing fee is $5,000. DEQ received the $5,000 processing fee on May 10, 2006.

7. PERMIT REVIEW

7.1 Regional Office Review of Draft Permit

An electronic copy of the draft permit was e-mailed to DEQ's Twin Falls Regional Office for review and comment on April 18, 2006.

7.2 Facility Review of Draft Permit

The facility was issued the draft permit for review and comment on April 25, 2006. The comments were addressed in the permit.

7.3 Public Comment

An opportunity for public comment period on the PTC application was provided from March 16, 2006, to April 17, 2006, in accordance with IDAPA 58.01.01.209.01.e. During this time, there were no comments on the application and no requests for a public comment period on DEQ's proposed action.

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommend that Raft River Energy I LLC be issued a final PTC No. P-060403 for the geothermal energy production (i.e. electricity production) plant. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD requirements.

SYC/bf Permit No. P-060403
Appendix A

AIRS Information

P-060403
AIRS/AFS\textsuperscript{a} FACILITY-WIDE CLASSIFICATION\textsuperscript{b} DATA ENTRY FORM

<table>
<thead>
<tr>
<th>AIR PROGRAM</th>
<th>POLLUTANT</th>
<th>SIP</th>
<th>PSD</th>
<th>NSPS (Part 60)</th>
<th>NESHAP (Part 61)</th>
<th>MACT (Part 63)</th>
<th>SM80</th>
<th>TITLE V</th>
<th>AREA CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SO\textsubscript{2}</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U</td>
</tr>
<tr>
<td></td>
<td>NO\textsubscript{x}</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U</td>
</tr>
<tr>
<td></td>
<td>CO</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U</td>
</tr>
<tr>
<td></td>
<td>PM\textsubscript{10}</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B</td>
<td></td>
<td>U</td>
</tr>
<tr>
<td></td>
<td>PT (Particulate)</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>VOC</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B</td>
<td></td>
<td>U</td>
</tr>
<tr>
<td></td>
<td>THAP (Total HAPs)</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| APPLICABLE SUBPART |

\textsuperscript{a} Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

\textsuperscript{b} AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).
Appendix B

*Emissions Inventory*

P-060403
### RAFT RIVER ENERGY 1 LLC
### RAFT RIVER GEOTHERMAL POWER PLANT - UNIT 1

#### COOLING TOWER EMISSION ESTIMATES

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cooling Water</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recirculation Rate:</td>
<td>48000 gal/min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDS Concentration:</td>
<td>4000 ppm</td>
<td>(600ppm in recirculating water)* (5 recirculation cycles)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid Drift*</td>
<td>0.005 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Mass Flow Rate:</td>
<td>(48000 gal/min)(60 min/hr)(8.33 lb/gal)</td>
<td>23990400 lb/hr of water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling Tower Drift:</td>
<td>(23990400 lb/hr)(0.00005)</td>
<td>1199.52 lb/hr of drift</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM10 Emissions:</td>
<td>(4000 ppm)(1199.52 lb/hr/yr)/10*</td>
<td>4.60 lb/hr</td>
<td>21.82 T/hr</td>
<td>(8760 hrs of operation per year)</td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Waste Water</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recirculation Rate:</td>
<td>48000 gal/min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDS Concentration:</td>
<td>5000 ppm</td>
<td>(1000ppm in recirculating water)* (5 recirculation cycles)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid Drift*</td>
<td>0.005 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Mass Flow Rate:</td>
<td>(48000 gal/min)(60 min/hr)(8.33 lb/gal)</td>
<td>23990400 lb/hr of water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling Tower Drift:</td>
<td>(23990400 lb/hr)(0.00005)</td>
<td>1199.52 lb/hr of drift</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM10 Emissions:</td>
<td>(5000 ppm)(1199.52 lb/hr/yr)/10*</td>
<td>6.00 lb/hr</td>
<td>26.37 T/hr</td>
<td>(8760 hrs of operation per year)</td>
</tr>
</tbody>
</table>

* Manufacturer's Information
Appendix C

Modeling Review

P-06040
RAFT RIVER ENERGY 1 LLC
RAFT RIVER GEOTHERMAL POWER PLANT - UNIT 1
Cooling Tower Modeling Results

**DATA/ASSUMPTIONS**

<table>
<thead>
<tr>
<th>Stack Parameters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>40 ft</td>
</tr>
<tr>
<td>Diameter</td>
<td>15 ft</td>
</tr>
<tr>
<td>Flow Rate (per cell)</td>
<td>1,095,000 ACFM</td>
</tr>
<tr>
<td>Temperature</td>
<td>293 K</td>
</tr>
</tbody>
</table>

The modeling conservatively assumes that all the emissions come out of one cell.

<table>
<thead>
<tr>
<th>Building Parameters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>25 ft</td>
</tr>
<tr>
<td>Width</td>
<td>55 ft</td>
</tr>
<tr>
<td>Length</td>
<td>240 ft</td>
</tr>
<tr>
<td>Max annual operating hours:</td>
<td>8760 h/yr</td>
</tr>
<tr>
<td>Max. 1-hr Ambient Impact:</td>
<td>0.0611 ug/m³</td>
</tr>
<tr>
<td>Distance to ambient air</td>
<td>750 ft</td>
</tr>
</tbody>
</table>

The modeling conservatively assumes that the exhaust temperature is ambient.

### Ambient Impact Analysis Clean Water

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emissions (kg/hr)</th>
<th>Emissions (T/yr)</th>
<th>Max 24-hr Impact (ug/m³)</th>
<th>Max Annual Impact (ug/m³)</th>
<th>24-hr SCL (ug/m³)</th>
<th>Annual SCL (ug/m³)</th>
<th>Above SCL?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter (PM/PM₁₀)</td>
<td>4.80</td>
<td>21.0</td>
<td>1.27</td>
<td>0.25</td>
<td>5</td>
<td>1</td>
<td>N</td>
</tr>
</tbody>
</table>

### Ambient Impact Analysis Brine Water

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emissions (kg/hr)</th>
<th>Emissions (T/yr)</th>
<th>Max 24-hr Impact (ug/m³)</th>
<th>Max Annual Impact (ug/m³)</th>
<th>24-hr SCL (ug/m³)</th>
<th>Annual SCL (ug/m³)</th>
<th>Above SCL?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter (PM/PM₁₀)</td>
<td>6.00</td>
<td>26.3</td>
<td>1.56</td>
<td>0.32</td>
<td>5</td>
<td>1</td>
<td>N</td>
</tr>
</tbody>
</table>

SCL = Significant Contribution Level
Raft River Energy 1 LLC Cooling Tower PM10

SIMPLE TERRAIN INPUTS:

- **SOURCE TYPE** = POINT
- **EMISSION RATE (G/S)** = .126000
- **STACK HEIGHT (M)** = 12.1920
- **STK INSIDE DIAM (M)** = 4.5720
- **STK EXIT VELOCITY (M/S)** = 31.4779
- **STK GAS EXIT TEMP (K)** = 293.0000
- **AMBIENT AIR TEMP (K)** = 293.0000
- **RECEPтор HEIGHT (M)** = .0000
- **URBAN/RURAL OPTION** = RURAL
- **BUILDING HEIGHT (M)** = 7.6200
- **MIN HORIZ BLDG DIM (M)** = 16.7600
- **MAX HORIZ BLDG DIM (M)** = 73.1520

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

STACK EXIT VELOCITY WAS CALCULATED FROM
VOLUME FLOW RATE = 1095000.0 (ACFM)

BUOY. FLUX = .000 M**4/S**3; MOM. FLUX = 5178.015 M**4/S**2.

*** FULL METEOROLOGY ***

********************

**SCREEN AUTOMATED DISTANCES ***

********************

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

<table>
<thead>
<tr>
<th>DIST (M)</th>
<th>CONC (UG/M**3)</th>
<th>STAB (M/S)</th>
<th>U10M (M/S)</th>
<th>USTK (M/S)</th>
<th>MIX HT (M)</th>
<th>PLUMB</th>
<th>SIGMA</th>
<th>SIGMA</th>
<th>DWASH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.8364E-08</td>
<td>6</td>
<td>1.0</td>
<td>1.1</td>
<td>10000.0</td>
<td>89.27</td>
<td>12.89</td>
<td>12.89</td>
<td>NO</td>
</tr>
<tr>
<td>100</td>
<td>.2386E-01</td>
<td>5</td>
<td>1.0</td>
<td>1.1</td>
<td>10000.0</td>
<td>97.93</td>
<td>25.25</td>
<td>24.75</td>
<td>NO</td>
</tr>
<tr>
<td>200</td>
<td>.9561E-01</td>
<td>3</td>
<td>10.0</td>
<td>10.2</td>
<td>3200.0</td>
<td>54.52</td>
<td>26.37</td>
<td>18.28</td>
<td>NO</td>
</tr>
<tr>
<td>300</td>
<td>.3209</td>
<td>3</td>
<td>10.0</td>
<td>10.2</td>
<td>3200.0</td>
<td>54.52</td>
<td>36.36</td>
<td>23.65</td>
<td>NO</td>
</tr>
<tr>
<td>400</td>
<td>.5123</td>
<td>4</td>
<td>20.0</td>
<td>20.6</td>
<td>6400.0</td>
<td>33.15</td>
<td>30.06</td>
<td>16.40</td>
<td>NO</td>
</tr>
<tr>
<td>500</td>
<td>.6208</td>
<td>4</td>
<td>20.0</td>
<td>20.6</td>
<td>6400.0</td>
<td>33.15</td>
<td>36.64</td>
<td>19.25</td>
<td>NO</td>
</tr>
<tr>
<td>600</td>
<td>.6609</td>
<td>4</td>
<td>20.0</td>
<td>20.6</td>
<td>6400.0</td>
<td>33.15</td>
<td>43.13</td>
<td>22.04</td>
<td>NO</td>
</tr>
<tr>
<td>700</td>
<td>.6478</td>
<td>4</td>
<td>20.0</td>
<td>20.6</td>
<td>6400.0</td>
<td>33.15</td>
<td>49.55</td>
<td>24.77</td>
<td>NO</td>
</tr>
<tr>
<td>800</td>
<td>.6119</td>
<td>4</td>
<td>20.0</td>
<td>20.6</td>
<td>6400.0</td>
<td>33.15</td>
<td>55.89</td>
<td>27.44</td>
<td>NO</td>
</tr>
<tr>
<td>900</td>
<td>.5742</td>
<td>4</td>
<td>15.0</td>
<td>15.5</td>
<td>4800.0</td>
<td>40.13</td>
<td>62.40</td>
<td>30.53</td>
<td>NO</td>
</tr>
<tr>
<td>1000</td>
<td>.5479</td>
<td>4</td>
<td>15.0</td>
<td>15.5</td>
<td>4800.0</td>
<td>40.13</td>
<td>68.59</td>
<td>33.07</td>
<td>NO</td>
</tr>
</tbody>
</table>

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

612. .6611 4 20.0 20.6 6400.0 33.15 43.97 22.40 NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH-HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH-SS MEANS SCHULMAN-SCHNE DOWNWASH USED
DWASH-NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

******************************************************************************

*** REGULATORY (Default) ***

PERFORMING CAVITY CALCULATIONS
WITH ORIGINAL SCREEN CAVITY MODEL
(BRODE, 1988)

******************************************************************************

*** CAVITY CALCULATION - 1 ***

<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>MAX CONC (UG/M**3)</th>
<th>DIST TO TERRAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIMPLE TERRAIN</td>
<td>0.6611</td>
<td>612</td>
</tr>
</tbody>
</table>

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

******************************************************************************

END OF CAVITY CALCULATIONS

******************************************************************************

******************************************************************************

*** SUMMARY OF SCREEN MODEL RESULTS ***

******************************************************************************

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

******************************************************************************