Worksheet for Technical Review of Working Draft of Proposed Permit

Company Name:	**Louisiana Generating, LLC**	**AI #:**	**38867**	**TEMPO Activity No:**	**PER20060002**
Facility Name:	**Big Cajun 2 Power Plant**	**Remarks Submitted by:**	**Gary Ellender**		
Permit Writer:	**Christopher Smith**	**Permit Writer Email address:**	**Christopher.smith@la.gov**		

Instructions

Permit Reference – Indicate specific portion(s) of the permit to which the remark relates (i.e. "Specific Requirement 120", or "Section II Air Permits Briefing Sheet", etc.).

Remarks – Explain the basis for each remark. Provide regulatory citations where possible. If the remark is made due to an error or omission in the permit application this must be noted and the revised information ***must be submitted.*** Revised information may be submitted separately from this worksheet. Please be aware that revised information must be submitted in writing and certified by the Responsible Official, and if necessary, by a Professional Engineer licensed in Louisiana. *Please Note:* New or additional equipment, processes or operating Requirements not addressed in the original permit application will be addressed on a case-by-case basis. The Department reserves the right to address such changes in a separate permit action.

DEQ Response – ***DO NOT COMPLETE THIS SECTION.*** This section will be completed by Air Permits Division of DEQ, included in the proposed permit package and made available for public review during any required public comment period.

- Additional rows may be added as necessary.
- Completed Form shall be emailed to the Permit writer in MS Word compatible format within the deadline specified in the email notification.
- ***DO NOT USE THIS FORM TO SUBMIT COMMENTS DURING THE OFFICIAL PUBLIC COMMENT PERIOD.***

Permit Reference	Remarks	Air Permits Division Response (for official use only)
STATEMENT OF BASIS		
Page 8 under Sorbent Operations	**First paragraph, 4th sentence - Big Cajun II will utilize PAC.... Change the "will utilize PAC" to "may utilize PAC"**	The following statement has been added to the permit, "An alternative means of maintaining mercury control other than PAC may be substituted with the prior approval of the Louisiana Department of Environmental Quality. The alternative must control mercury to the limits set through the case-by-case MACT analysis."
Page 10 under table "Estimated emissions increases..."	**VOC emissions listed under "Emission Rate Increase" is 97.8, listed in PSD permit as 97.7, but 97.8 in Specific Conditions**	The VOC emission rate remains at 97.8 tons per year as established in the Maximum Emission Rate table of PSD-LA-677(M-1) issued December 15, 2008. The 97.7 rate listed in the PSD Briefing Sheet and Preliminary Determination Summary was a typographical error and was corrected through an Administrative Amendment. The correct limit of 97.8 TPY was specified in the Specific Conditions of the PSD permit.

Page 12-13 under tables <u>Permitted Air Emissions</u>	**VOC in After column is listed as 408.23; was 407.90 in the 11/2006 draft** **VOC in Change column is -332.57; was -332.9 in 11/06 draft** **Formaldehyde in After column is listed as 1.822; should be 1.63** **Polynuclear Aromatic Hydrocarbons in After column is 0.087; should be 0.037** **Antimony in After column is 0.028; should be 0.048** **Arsenic in After column is 0.454; should be 0.800** **Cadmium in After column is 0.03; should be 0.041** **Nickel in After column is 2.063; should be 0.798** **Selenium in After column is 1.102; should be 1.90** **Before and After numbers for Dimethyl sulfate and 2,4-Dinitrophenol should be reversed; the two "<0.01 should be for the Dinitrophenol and the 0.09 for the Dimethyl sulfate** **Lead in After column is 0.39; should be 0.75**	The overall **VOC** emission rate was revised to 407.96 tons per year to account for updated emission rates. The overall **Formaldehyde** emissions increased with the changes on the December 16, 2008 EIQ for EQT021, 15-01 – Boiler No. 4(2B4). The overall **Polynuclear Aromatic Hydrocarbons** emissions increased with the changes on the December 16, 2008 EIQ for EQT021. The overall **Antimony (and compounds)** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021. The overall **Arsenic (and compounds)** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021. The overall **Cadmium (and compounds)** emissions were revised to 0.028 tons per year because of the changes on the December 16, 2008 EIQ for EQT021. The overall **Nickel (and compounds)** emissions increased with the changes reduction on the December 16, 2008 EIQ for EQT021. The overall **Selenium (and compounds)** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021. The revisions to the emission rates of **Dimethyl sulfate** and **2,4-Dinitrophenol** were made as requested. The overall **Lead compounds** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021.
Page 19-20 under <u>Prevention of Significant Deterioration (PSD) Review</u>	**Under "Estimated emission increases..." table the VOC under Emission Rate Increase is 97.8; is 97.7 in 11/2006 draft** **Under table "Maximum Allowable Emission Rates" VOC for 15-01 Boiler No. 4 (EQT021) is 97.7 TPY in 11/2006 draft**	The **VOC** emission rate remains at 97.8 tons per year as established in the Maximum Emission Rate table of PSD-LA-677(M-1) issued December 15, 2008. The 97.7 rate listed in the PSD Briefing Sheet and Preliminary Determination Summary was a typographical error and was corrected through an Administrative Amendment. The correct limit of 97.8 TPY was specified in the Specific Conditions of the PSD permit.
Page 28 (table) Zinc	**Need to verify the "Calculated Maximum Ground Level Concentration" for Zinc listed in the Pollutant Table. Zinc is listed as 23.37, the original draft permit was 0.0000269, which is much different**	**Zinc (and compounds)** emissions increased by 0.56 TPY on the revised EIQ sheet submitted December 16, 2008 for EQT021, 15-01 – Boiler 2B4. This increase in **Zinc (and compounds)** emissions of 0.56 TPY caused the increase in the Calculated Maximum Ground Level Concentration for **Zinc (and compounds)**. This number is the result of a screening analysis performed by LDEQ due to increases in the pollutant emissions subsequent to the facility's modeling submittal. This number does not represent the result of a refined screening analysis. This number is extremely conservative because it does not take into account site specific information for the facility or the facility fenceline.
TITLE V PERMIT Air Permit Briefing Sheet		
Page 7 under <u>Sorbent Operations</u>	**First paragraph, 4th sentence - Big Cajun II will utilize PAC.... Change the "will utilize PAC" to "may utilize PAC"**	The following statement has been added to the permit, "An alternative means of maintaining mercury control other than PAC may be substituted with the prior approval of the Louisiana Department of Environmental Quality. The alternative must control mercury to the limits set through the case-by-case MACT analysis."

Page 9 under table "Estimated emissions increases..."	**VOC emissions listed under "Emission Rate Increase (TPY)" is 97.8, listed in 11/2006 draft as 97.7; 98.0 in new Emission Rate document**	The **VOC** emission rate remains at 97.8 tons per year as established in the Maximum Emission Rate table of PSD-LA-677(M-1) issued December 15, 2008. The 97.7 rate listed in the PSD Briefing Sheet and Preliminary Determination Summary was a typographical error and was corrected through an Administrative Amendment. The correct limit of 97.8 TPY was specified in the Specific Conditions of the PSD permit.
Page 11-12 under heading "Estimated emissions in tons per year are as follows:"	**VOC in After column is listed as 408.23; was 407.90 in the 11/2006 draft** **VOC in Change column is -332.57; was -332.9 in 11/06 draft** **Formaldehyde in After column is listed as 1.822; should be 1.63** **Polynuclear Aromatic Hydrocarbons in After column is 0.087; should be 0.037** **Antimony in After column is 0.028; should be 0.048** **Arsenic in After column is 0.454; should be 0.800** **Cadmium in After column is 0.03; should be 0.041** **Nickel in After column is 2.063; should be 0.798** **Selenium in After column is 1.102; should be 1.90** **Lead in After column is 0.39; should be 0.75**	The overall **VOC** emission rate was revised to 407.96 tons per year to account for updated emission rates. The overall **Formaldehyde** emissions increased with the changes on the December 16, 2008 EIQ for EQT021. The overall **Polynuclear Aromatic Hydrocarbons** emissions increased with the changes on the December 16, 2008 EIQ for EQT021. The overall **Antimony (and compounds)** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021. The overall **Arsenic (and compounds)** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021. The overall **Cadmium (and compounds)** emissions were revised to 0.028 tons per year because of the changes on the December 16, 2008 EIQ for EQT021. The overall **Nickel (and compounds)** emissions increased with the changes reduction on the December 16, 2008 EIQ for EQT021. The overall **Selenium (and compounds)** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021. The overall **Lead compounds** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021.
Page 17 Section VII. Effects on Ambient Air	**In the table, SO2 under "Calculated Maximum Ground Level Concentration" is listed as 28.4 for "24-hour"; the SO2 in the SOB and in the PSD permit is 28.14**	The draft permit was revised as requested.
TPOR0145 EMISSIONS RATES FOR CRITERIA POLLUTANTS		
Page 1	**VOC Tons/Year listed as 98.00; 97.8 in SOB**	The **VOC** emission rate remains at 97.8 tons per year as established in the Maximum Emission Rate table of PSD-LA-677(M-1) issued December 15, 2008.
Page 2	**EQT 0058 - PM10 Tons/Year listed as 0.09; should be 0.064** **EQT 0063 – PM10 Avg lb/hr listed as 0.51; should be 0.265** **EQT 0063 – PM10 Tons/Year listed as 2.23; should be 1.162** **EQT 0070 – PM10 Avg lb/hr listed as 0.12; should be 0.035** **EQT 0070 – PM10 Tons/Year listed as 0.50; should be 0.151** **EQT 0071 – PM10 Avg lb/hr listed as 0.02; should be 0.035**	**PM_{10}** average (lb/hr) and annual (tpy) emissions for EQT058, 01-01 – Coal Unloading, EQT063, 02-06 – Luffing/Slewing Stacker Feed, and EQT070, 09-06 – Limestone Stackout were revised as requested. **PM_{10}** average emissions rate remain as listed at 0.018 lb/hr on the most recent EIQ dated November 8, 2006 for EQT071, 10-06 – Limestone Reclaim.

Page 3	**FUG 0011 – PM10 Avg lb/hr listed as 0.49; should be 1.538**	As stated in the response to the November 29, 2006 comments, in the Emission Rates For Criteria Pollutants section of the Part 70 permit modification, the Average (lb/hr) rate FUG011, FUG 7 – Limestone Conveyors, remains listed in the permit as on the EIQ sheet submitted on October 23, 2006. This EIQ sheet listed the PM_{10} average emission rate at 0.49 lb/hr.
TPOR0146 EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS		
Page 4 under EQT 0027	**Chromium VI (and compounds) Avg lb/hr should be 0.034; Max lb/hr should be 0.168; Tons/Year should be 0.150**	**Chromium VI (and compounds)** emissions were added to the permit as requested.
Page 5 under EQT 0028	**Chromium VI (and compounds) Avg lb/hr should be 0.034; Max lb/hr should be 0.168; Tons/Year should be 0.150**	**Chromium VI (and compounds)** emissions were added to the permit as requested.
Page 5 under EQT 0029	**Chromium VI (and compounds) Avg lb/hr should be 0.031; Max lb/hr should be 0.153; Tons/Year should be 0.130**	**Chromium VI (and compounds)** emissions were added to the permit as requested.
Page 14 under FUG 0002	**Cadmium Max lb/hr is listed as 0.001; should be 0.013**	The most recent EIQ for FUG002, FUG 2 – Coal Piles, from April 28, 2006, listed the **Cadmium (and compounds)** maximum lb/hr at 0.001.
Page 16 under SCN 0003	**Cobalt compounds Avg lb/hr should be 0.03; Max lb/hr should be 0.03; Tons/Year should be 0.12**	The **Cobalt compounds** emissions were added as requested.
Page 17 under UNF 0001	**Ammonia Tons/Year listed as 43.74; should be 53.64** **Antimony (and compounds) Tons/Year listed as 0.028; should be 0.48** **Arsenic (and compounds) Tons/Year listed as 0.454; should be 0.800** **Benzene Tons/Year listed as 9.03; should be 8.94**	The overall **Ammonia** emissions were revised as requested. The overall **Antimony (and compounds)** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021. The overall **Arsenic (and compounds)** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021. The overall **Benzene** emissions were revised as requested.
Page 18 under UNF 0001	**Cadmium (and compounds) Tons/Year listed as 0.030; should be 0.041** **Formaldehyde Tons/Year listed as 1.820; should be 1.630** **Lead compounds Tons/Year listed as 0.39; should be 0.75** **Nickel (and compounds) Tons/Year listed as 2.063; should be 0.798** **Polynuclear Aromatic Hydrocarbons Tons/Year listed as 0.090; should be 0.037** **Selenium (and compounds) Tons/Year listed as 1.102; should be 1.90**	The overall **Cadmium (and compounds)** emissions were revised to 0.028 tons per year because of the changes on the December 16, 2008 EIQ for EQT021, 15-01 – Boiler No. 4(2B4). The overall **Formaldehyde** emissions increased with the changes on the December 16, 2008 EIQ for EQT021. The overall **Lead compounds** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021. The overall **Nickel (and compounds)** emissions increased with the changes reduction on the December 16, 2008 EIQ for EQT021. The overall **Polynuclear Aromatic Hydrocarbons** emissions increased with the changes on the December 16, 2008 EIQ for EQT021. The overall **Selenium (and compounds)** emissions decreased because of the reduction on the December 16, 2008 EIQ for EQT021.
Page 19 under UNF 0001	**Zinc (and compounds) Tons/Year listed as 1.52; should be 0.964**	The overall **Zinc (and compounds)** emissions increased by 0.56 TPY with the revised EIQ sheet submitted December 16, 2008 for EQT021, 15-01 – Boiler 2B4.
TPOR0147 SPECIFIC REQUIREMENTS		
Specific Requirement 5	**Please specify for filterable PM**	The draft permit language has been changed as requested.

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Specific Requirement 108-109	**Add "or alternate method approved by LDEQ"**	The draft permit language has been changed as requested.
Specific Requirement 176	**Shouldn't this get an asterisk like PM10 for more stringent under MACT**	A footnote has been added that the MACT limits for Fluoride are more stringent the BACT limits.
Specific Requirement 315	**Delete; duplicate of 314**	The draft permit language has been changed as requested.
Specific Requirement 327	**Delete; duplicate of 328**	The draft permit language has been changed as requested.
Specific Requirement 399	**Delete; duplicate of 398**	The draft permit language has been changed as requested.
TPOR0148 GENERAL INFORMATION		
Page 1 Location of Front Gate	**Coordinates should read** 30 degrees, 43', 35", 50 hundredths 91 degrees, 22', 0", 36 hundredths	Coordinates at front gate have been changed as requested.
TPRO0149 INVENTORIES		
Page 2 FUG0011	**Will utilize throughput of 500000 as limiting factor; change operating time from 1516 hr/yr to 8760 hr/yr**	As stated in the response to the November 29, 2006 comments, in the Inventories section of the Part 70 permit modification, the Maximum Operating Rate for this source has been listed as 500,000 tons per year. The Operating Time listed for FUG011, FUG 7 – Limestone Conveyors, remains listed in the permit as on the EIQ sheet submitted on October 23, 2006. The throughput of 500,000 TPY is established as the limiting factor in this permit for FUG011 under both the Specific Requirements and the Periodic Monitoring Section of the Statement of Basis.
Pages 2-4 Stack Information	**Stack information is incorrect on pages 2 to 4; this information needs to be corrected**	Stack information has been changed as requested.
CAIR PERMIT	**No comments**	

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