BEFORE THE MISSOURI AIR CONSERVATION COMMISSION and
MISSOURI ADMINISTRATIVE HEARING COMMISSION

In Re: PSD Construction Permit Issued to Great Plains Energy
Project No. 2005-05-062
Permit No. 012006–019
Kansas City Power & Light Company – Iatan Generating Station

SIERRA CLUB )
) Petitioner )
) v. )
) MISSOURI DEPARTMENT OF NATURAL )
RESOURCES ) Respondent )
) GREAT PLAINS ENERGY )
) Respondent )
) KANSAS CITY POWER & LIGHT COMPANY )
) Respondent )
)

COMPLAINT

1. Petitioner Sierra Club, by and through counsel, hereby appeals the issuance by the
Respondent Missouri Department of Natural Resources (“DNR”) of PSD Construction Permit
No. 012006-019 (“the Permit”) to Respondents Great Plains Energy and Kansas City Power &
Light Company (collectively “KCPL”) for construction and modifications at Iatan Generating
Station. This petition is filed pursuant to §§ 643.075.6 and 621.250.3, R.S.Mo. (2005).
INTRODUCTION

2. KCPL currently operates a large coal-fired power plant, Iatan Unit 1, in the Kansas City metropolitan area. Iatan Unit 1 emits large amounts of air pollutants that pose a threat to human health, including but not limited to mercury, particulate matter, nitrogen oxides, sulfur dioxide, sulfuric acid mist, carbon monoxide, and volatile organic compounds. It also emits large amounts of carbon dioxide, which contributes to global warming.

3. The Permit authorizes KCPL to undertake at Iatan Unit 1 modifications that will increase Unit 1’s emission of some air pollutants. The Permit also authorizes KCPL to construct a new, larger coal-fired power plant, Iatan Unit 2, at the same site. Iatan Unit 2 will emit the same air pollutants as Unit 1. The Permit refers to both the modification of Iatan Unit 1 and the construction of Iatan Unit 2 as the Iatan Generating Station project.

4. Federal and state law preclude DNR from issuing a PSD permit unless certain prerequisites are satisfied. Two key prerequisites involve ensuring that the project will not have an unacceptable impact on air quality, and ensuring that the project will employ the best available pollution control technology. In this case, DNR made numerous factual and legal errors in applying, and in failing to apply, these requirements. For those and other reasons, DNR improperly and unlawfully issued the Permit to KCPL.

5. Petitioner seeks a hearing before the Administrative Hearing Commission and a decision by the Air Conservation Commission to deny or rescind the Permit.

THE PARTIES

6. Petitioner Sierra Club is dedicated to protecting and enjoying the natural environment in the State of Missouri, and throughout the nation. The Sierra Club has for years been active in protecting air quality throughout the State. The Sierra Club brings this appeal on
its own behalf and on behalf of its members. More than 2,000 members of the Sierra Club reside in the Kansas City metropolitan area, with more than 150 residing in Platte County.

7. The Iatan Generating Station project is in Platte County, Missouri. Platte County is within the Kansas City metropolitan area. 10 CSR 10-6.020(2)(K)1.

8. The Kansas City metropolitan area is a Prevention of Significant Deterioration (“PSD”) area because it is either in attainment of or unclassified with respect to the National Ambient Air Quality Standards.

9. The Sierra Club and its members will be adversely affected by the air pollution emitted by KCPL’s proposed Iatan Generating Station project authorized by the Permit. Members of the Sierra Club live and recreate in the Kansas City metropolitan area affected by the Iatan Generating Station’s air pollution emissions. Sierra Club members are concerned that air pollution emissions from the Iatan Generating Station will threaten their health and limit their ability to enjoy the natural environment. Sierra Club members afflicted with asthma and other respiratory or cardiovascular diseases, older adults, and young children are concerned that air pollution emissions from the Iatan Generating Station will further threaten their health.

10. The Sierra Club sponsors outings in the Kansas City metropolitan area to enable its members to enjoy the natural environment. The Sierra Club is concerned that air pollution emissions from the Iatan Generating Station will impair its ability to host successful outings in the vicinity of the proposed project, and will discourage members from participating in such outings and otherwise enjoying outdoor recreation in the region.

11. Respondent Missouri Department of Natural Resources is an agency of the State of Missouri and is charged with protecting and improving the air resources of the State. The DNR administers the Missouri Air Conservation Law, c. 643, R.S.Mo., and makes decisions
regarding the issuance of air pollution permits, including the Permit at issue in this appeal. Its
decisions are subject to appeal to the Administrative Hearing Commission, for hearing, and the
Missouri Air Conservation Commission, for final decision.

12. Respondent Great Plains Energy is a holding company based in Kansas City, Missouri. The Permit names Great Plains Energy as the owner of the Iatan Generating Station.

13. Respondent Kansas City Power & Light Company is a wholly-owned subsidiary of Great Plains Energy. The Permit names Kansas City Power & Light as the entity responsible for fulfilling the terms and conditions of the Permit.

JURISDICTION

14. The Air Conservation Commission has jurisdiction to decide this appeal under §§ 643.075.6, 643.100, and 643.120, R.S.Mo. The Air Conservation Commission has de novo review of the DNR’s decision to issue the Permit.

15. The Administrative Hearing Commission has jurisdiction under § 621.250.3, R.S.Mo. (2005), to conduct the hearing and issue recommended Findings of Fact and Conclusions of Law to the Air Conservation Commission.

FACTUAL AND PROCEDURAL BACKGROUND

16. Construction of Iatan Unit 1 was authorized by a PSD permit dated January 7, 1977 (“the 1977 PSD Permit”) and issued by the U.S. Environmental Protection Agency (“EPA”).

17. The 1977 PSD permit authorized the construction of a “630 megawatt generating unit.”

18. At some time after January 1977, DNR assumed primary responsibility from EPA for administering the PSD permit program in the State of Missouri.
19. In 1993, DNR issued a “de minimis” PSD permit, No. 1293-004, authorizing new controls for the electrostatic precipitator associated with the boiler on Unit 1.

20. In or about June 1995, KCPL and/or an affiliated entity filed an application to construct Iatan Unit 2 at the site of Iatan Unit 1. In or about February 1997, that application was withdrawn.

21. In or about November 2001, KCPL and/or an affiliated entity filed an application to construct a second coal-fired power plant, named Weston Bend Generating Station, in the vicinity of Iatan Unit 1. In or about June 2004, KCPL and/or an affiliated entity submitted a revised application in place of the November 2001 application.

22. In or about December 2004, KCPL approached DNR and EPA with a proposal involving, among other items, an agreement by DNR and EPA not to issue to KCPL information requests under Clean Air Act § 114, 42 U.S.C. § 7414, or to commence enforcement actions against KCPL for any unpermitted modifications at the Iatan Unit 1 facility.

23. No such agreement was consummated.

24. In May 2005, KCPL withdrew its pending Weston Bend PSD permit application and submitted the application that led to the PSD Permit at issue in this appeal.

25. On or about November 3, 2005, DNR issued a draft permit for public notice and comment.

26. When it issued the draft permit, DNR made available a modeling memo addressing, among other things, air quality impacts associated with particulate matter, carbon monoxide, and hazardous air pollutant emissions from the Iatan Generating Station project. Kansas City Power & Light – Prevention of Significant Determination [sic] (PSC) – Air Dispersion Modeling (Iatan I & II), Nov. 2, 2005 (“Draft Modeling Memo”).
27. The Draft Modeling Memo did not address air quality impacts associated with sulfur dioxide or nitrogen oxide emissions from the Iatan Generating Station project.

28. DNR held a public hearing regarding the draft permit on December 5, 2005.

29. Petitioner Sierra Club submitted written comments regarding the draft permit, and made verbal comments at the public hearing.

30. On January 31, 2006, DNR issued the Permit. The Permit authorizes KCPL to modify Iatan Unit 1 “to upgrade the pollution control system and increase the heat input rate,” and to construct new Iatan Unit 2. In accordance with AHC regulations, 1 CSR 15-3.350(2)(B)1, a copy of the Permit is attached hereto as Exhibit A.


33. The SO₂ Modeling Memo addressed what DNR termed “near-field (<50 km from the source)” impacts associated with sulfur dioxide emissions from the Iatan Generating Station project.

34. The SO₂ Modeling Memo did not address what DNR termed “far-field” impacts associated with sulfur dioxide emissions from the Iatan Generating Station project.
35. DNR did not make the SO$_2$ Modeling Memo available to the public prior to the issuance of the final Permit.

36. Petitioner Sierra Club is aggrieved by DNR’s decision to issue the Permit.

37. Petitioner Sierra Club hereby appeals DNR’s decision to issue the Permit to the Administrative Hearing Commission, for hearing, and the Air Conservation Commission, for decision. This appeal is being filed within 30 days after DNR issued the Permit.

**COUNT I: DNR UNLAWFULLY FAILED TO CONDUCT AIR QUALITY IMPACT ANALYSES REGARDING NITROGEN OXIDE (NO$_X$) AND SULFUR DIOXIDE (SO$_2$) EMISSIONS FROM THE IATAN GENERATING STATION**

38. Petitioners hereby reallege and incorporate by reference paragraphs 1 through 37 above.

39. Missouri law requires that before issuing a PSD construction permit, the Director of DNR shall “determine if the ambient air quality standards in the vicinity of the source are being exceeded and shall determine the impact on the ambient air quality standards from the source.” § 643.075.3, R.S.Mo. (2000).

40. Missouri regulations preclude DNR from issuing a construction permit unless it determines that the proposed source “will not… interfere with the attainment or maintenance of air quality standards,” 10 C.S.R. 10-6.060(6)(A)2, or “[c]ause or contribute to ambient air concentrations of excess of any maximum allowable” increment, 10 CSR 10-6.060(6)(A)3.

41. Under both Missouri and federal law, DNR may not issue a PSD permit unless the applicant affirmatively demonstrates that the proposed project “will not cause or contribute to ambient air concentrations in excess of any ambient air quality standard or any maximum allowable increase over the baseline concentration in any area.” 10 CSR 10-6.060(8)(C)3. See also 42 USC § 7475(a)(3).
42. Missouri regulations, 10 CSR 10-6.060(8)(C)3, require extensive air quality impact analyses for each pollutant the facility will emit in excess of de minimis emission levels listed in 10 CSR 10-6.020(3)(A) Table 1.

43. Neither KCPL nor DNR conducted air quality impact analyses regarding the effects of nitrogen oxides (NO\textsubscript{X}) emissions from the Iatan Generating Station project on NO\textsubscript{X} concentrations in the area.

44. Neither KCPL nor DNR conducted air quality impact analyses regarding the far-field effects of sulfur dioxide (SO\textsubscript{2}) emissions from the Iatan Generating Station project on SO\textsubscript{2} concentrations in the area.

45. Although DNR released a “near-field, short-term” SO\textsubscript{2} modeling analysis when it issued the final Permit, that analysis cannot suffice for PSD purposes because it is only a partial analysis and because the public had no opportunity to comment on it.

46. DNR based its decision not to conduct, nor to require KCPL to conduct, air quality impact analyses for NO\textsubscript{X} and SO\textsubscript{2} emissions on the ground that the Iatan Generating Station project will involve a net emissions decrease of NO\textsubscript{X} and SO\textsubscript{2} emissions. Permit at 22 and 33.

47. The net emissions decrease, or “netting,” calculations on which DNR and KCPL rely assume that post-project NO\textsubscript{X} and SO\textsubscript{2} emissions from both Iatan Unit 1 and Iatan Unit 2 combined will be lower than pre-project emissions from existing Iatan Unit 1.

48. KCPL proposes to achieve the net emissions reduction by adding modern pollution control equipment onto existing Unit 1, resulting in emissions reductions large enough to exceed the NO\textsubscript{X} and SO\textsubscript{2} emissions increases from the increased heat input rate at Unit 1 and the operation of new Unit 2.
49. KCPL and DNR calculated pre-project, or “baseline,” NO\textsubscript{x} and SO\textsubscript{2} emissions from Iatan Unit 1 by using the facility’s actual emissions during 2003 and 2004.

50. In public comment on the draft permit, petitioner Sierra Club submitted evidence suggesting that KCPL’s baseline NO\textsubscript{x} and SO\textsubscript{2} emissions are inappropriately high. The evidence suggested that KCPL may have modified Iatan Unit 1, resulting in an increase in electricity generation and/or an increase in firing rate, without obtaining the requisite PSD permit for such modification.

51. The evidence of an unpermitted modification was reinforced by EPA documents indicating that KCPL had recently sought protection from EPA and DNR against possible enforcement action for illegal facility modification at Iatan Unit 1.

52. In its response to comments issued with the Permit, DNR “acknowledges that there has been a trend of increased fuel throughput and electricity generation” at Iatan Unit 1. DNR also states: “It is possible that KCPL invested in a modification to get more power out of the turbine, or some other modification to unit…” Comments and Responses to KCPL’s Iatan PSD New Source Review Permit Project Number 2005-05-062 (“Comments and Responses”), pp. 32 and 34.

53. After recognizing that KCPL may have made an illegal modification to Iatan Unit 1, DNR concluded as follows that an illegal modification would not affect KCPL’s ability to net out of PSD review for the Iatan Generating Station’s NO\textsubscript{x} and SO\textsubscript{2} emissions:

“If an investigation was to find that and [sic] a ‘major modification’ occurred at Iatan Unit 1, this would likely not invalidate the netting analysis for this project. The actual emissions in 2003 and 2004 would not be affected by such a finding and it is questionable that the representative historical emission rates used in the netting calculations would change at all. If an investigation concluded that a ‘major modification’ occurred at Iatan Unit 1 and a decision was made to adjust the representative historical emission rates, the affect [sic] of this on the netting analysis is unknown. Regardless of whether there was a
past ‘major modification’ to Iatan Unit 1, this project will still result in net emissions decreases for both SO\(_2\) and NO\(_x\).”

Comments and Responses, p. 34.

54. DNR’s conclusion that a possible illegal, prior modification at Iatan Unit 1 would not undermine the netting analysis in the Permit is legally erroneous and factually unfounded.

55. When a facility undertakes a major modification, it must obtain a PSD permit, requiring it both to conduct an air quality impact analysis, and to reduce its emissions in accordance with Best Available Control Technology (“BACT”).

56. When a facility undertakes a modification, it may also become subject to applicable new source performance standards (“NSPS”) regulations.

57. There is no indication that Iatan Unit 1 obtained a PSD Permit or began operating subject to then-applicable NSPS regulations in connection with a prior modification that DNR acknowledged may have occurred.

58. When a facility undertakes a major modification without first obtaining a permit, as may have occurred at Iatan Unit 1, BACT is determined as of when the facility ultimately comes into compliance with previously-avoided requirements.

59. If KCPL undertook modifications subject to NSPS regulations at Iatan Unit 1 at any time after operations commenced in 1980, its NO\(_x\) and SO\(_2\) emissions from Iatan Unit 1 would have been restricted in accordance with NSPS regulations at 40 CFR Part 60, Subpart Da.

60. If KCPL undertook modifications subject to both BACT and NSPS, then BACT would govern its NO\(_x\) and SO\(_2\) emissions from Iatan Unit 1.

61. DNR stated that a prior illegal modification would not have affected the baseline emissions KCPL would use for netting purposes. Comments and Responses, p. 34.
62. KCPL may not claim for “netting” purposes any reductions that it is legally required to make to comply with BACT or NSPS regulations.

63. A prior illegal modification that should have triggered BACT and/or NSPS regulations would reduce the baseline emissions KCPL is entitled to use for netting purposes.

64. If DNR had investigated the viability of KCPL’s netting claim prior to issuing the Permit, and confirmed that KCPL had illegally modified Iatan Unit 1, then DNR would have been required to recalculate KCPL’s baseline emissions of NO\textsubscript{x} and SO\textsubscript{2} to reflect reductions required by BACT and/or NSPS.

65. If KCPL’s baseline emissions of NO\textsubscript{x} and SO\textsubscript{2} from Iatan Unit 1 were limited by BACT, then it would have been virtually impossible for the Iatan Generating Station project, involving an increase in emissions from Unit 1 and the construction of new Unit 2, to net out of PSD review for NO\textsubscript{x} and SO\textsubscript{2}.

66. Because an investigation of KCPL’s apparent past modification of Iatan Unit 1 would likely have invalidated the netting analysis, DNR was required to investigate the issue before accepting KCPL’s netting analysis and issuing the Permit.

67. DNR erroneously, unlawfully, and improperly decided to issue the Permit without conducting such investigation.

68. If KCPL’s netting analysis is incorrect, then the Iatan Generating Station project does not “net out” of PSD review for NO\textsubscript{x} and SO\textsubscript{2}, and DNR may not issue the permit unless and until KCPL conducts proper air quality impact analyses regarding NO\textsubscript{x} and SO\textsubscript{2} emissions from the Iatan Generating Station project.

69. DNR erroneously, unlawfully, and improperly decided to issue the Permit without requiring KCPL to perform, and without itself performing, air quality impact analyses sufficient
to determine whether NO\textsubscript{x} and SO\textsubscript{2} emissions from the Iatan Generating Station project would cause or contribute to violations of applicable air quality standards.

**COUNT II: DNR UNLAWFULLY FAILED TO CONDUCT A BACT ANALYSIS, AND IMPOSE BACT-BASED PERMIT LIMITS, FOR NO\textsubscript{x} AND SO\textsubscript{2} EMISSIONS FROM THE IATAN GENERATING STATION PROJECT.**

70. Petitioners hereby reallege and incorporate by reference paragraphs 1 through 69 above.

71. Missouri and federal law require new sources, as well as existing sources that undertake major modifications, in PSD areas to employ the “best available control technology” for pollutants emitted in significant amounts. 10 CSR 10-6.060(8)(B)1; 42 U.S.C. § 7475(a)(4).

72. Neither KCPL nor DNR conducted BACT analyses for NO\textsubscript{x} and SO\textsubscript{2} emissions from the Iatan Generating Station project.

73. The Permit does not contain BACT-based emission limits for NO\textsubscript{x} and SO\textsubscript{2} emissions from the Iatan Generating Station project.

74. DNR based its failure to conduct BACT analyses and impose BACT-based permit limits for NO\textsubscript{x} and SO\textsubscript{2} emissions from the Iatan Generating Station project on KCPL’s assertion that the project will achieve a net reduction in NO\textsubscript{x} and SO\textsubscript{2} emissions. Permit, p. 28.

75. Paragraphs 47 – 67 above are hereby specifically incorporated by reference herein.

76. If KCPL’s netting analysis is incorrect, then the Iatan Generating Station project does not “net out” of PSD review for NO\textsubscript{x} and SO\textsubscript{2}, and DNR may not issue the Permit without imposing BACT-based emission limits on NO\textsubscript{x} and SO\textsubscript{2} emissions from the Iatan Generating Station project.
77. DNR erroneously, unlawfully, and improperly decided to issue the Permit without requiring KCPL to perform, and without itself performing, BACT analyses regarding NO$_x$ and SO$_2$ emissions from the Iatan Generating Station project.

78. DNR erroneously, unlawfully, and improperly decided to issue the Permit without imposing BACT-based emission limits on NO$_x$ and SO$_2$ emissions from the Iatan Generating Station project.

**COUNT III: DNR UNLAWFULLY FAILED TO CONSIDER IGCC IN ITS BACT ANALYSIS**

79. Petitioners hereby reallege and incorporate by reference paragraphs 1 through 78 above.

81. Missouri and federal law require new sources, as well as existing sources that undertake major modifications, in PSD areas to employ the Best Available Control Technology (“BACT”) for pollutants emitted in significant amounts. 10 CSR 10-6.060(8)(B)1; 42 U.S.C. § 7475(a)(4).

82. DNR noted in the Permit that a BACT analysis involves a five-step process. Permit at 28.

83. DNR noted in the Permit that Step 1 is: “Identify all potential control technologies – must be a comprehensive list, it may include technology employed outside the United States and must include the Lowest Achievable Emission Rate (LAER) determinations.” Permit at 28.

84. BACT includes emission limits achievable “through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant.” 42 U.S.C. § 7479(3) and 10 CSR 10-6.020(2)(B)5.
85. Integrated Gasification Combined Cycle ("IGCC") is within the above-quoted BACT definition.

86. IGCC could substantially reduce emissions of carbon monoxide, particulate matter, mercury, sulfur dioxide, and nitrogen oxides from the Iatan Generating Station project.

87. In addition, IGCC can facilitate the capture and disposal of carbon dioxide, which when emitted to the atmosphere contributes significantly to global warming.

88. Several companies have constructed and/or proposed to construct IGCC units.

89. At least two states have required companies proposing pulverized coal electric power plants to include IGCC in their BACT analyses.

90. A nine-state consortium, the Northeast States for Coordinated Air Use Management, has repeatedly stated that IGCC should be considered in a BACT analysis for any new coal-fired power plant.

91. With reference to the Iatan Generating Station permit application, a representative of EPA Region 7 stated that KCPL should include IGCC in its BACT analysis.

92. KCPL did not include IGCC in its BACT analysis. It did, however, submit to DNR a "white paper" addressing IGCC.

93. DNR relied on an EPA guidance document to justify its failure to include, or require KCPL to include, IGCC in their BACT analyses.

94. The EPA guidance document is not a legal standard or requirement, is inconsistent with the Clean Air Act and with prior EPA statements on this issue, and is not binding on DNR.
95. DNR erroneously issued the Permit without requiring KCPL to include, and without itself including, IGCC in the BACT analyses conducted by KCPL and DNR regarding the proposed Iatan Generating Station project.

96. DNR violated its obligations under state and/or federal law, 10 CSR 10-6.060(8)(B)1 and 42 U.S.C. § 7475(a)(4), to require KCPL to employ BACT by failing to consider, or to require KCPL to consider, IGCC in the BACT analyses performed by DNR and KCPL.

COUNT IV: DNR UNLAWFULLY FAILED TO SPECIFY IATAN UNIT 2 AS A SUPERCRITICAL BOILER IN THE FINAL PERMIT

97. Petitioners hereby reallege and incorporate by reference paragraphs 1 through 96 above.

98. Missouri and federal law require new sources, as well as existing sources that undertake major modifications, in PSD areas to employ the Best Available Control Technology (“BACT”) for pollutants emitted in significant amounts. 10 CSR 10-6.060(8)(B)1; 42 U.S.C. § 7475(a)(4).

99. KCPL represented to both DNR and the Missouri Public Service Commission that Iatan Unit 2 would employ a supercritical boiler.

100. DNR concedes that a supercritical boiler “will produce less air pollution per megawatt of electricity generated” than a subcritical boiler. Comments and Responses, p. 37.

101. DNR attempted to specify in the Permit that Iatan Unit 2 would employ a supercritical boiler.

101. DNR yielded to KCPL’s request that the Permit not specify that Iatan Unit 2 would employ a supercritical boiler.
102. DNR attempted to justify its failure to specify in the Permit that Iatan Unit 2 would employ a supercritical boiler by stating that it would not “redefine the source.” Comments and Responses, p. 37.

103. Because KCPL represented to both DNR and the Missouri Public Service Commission that it would employ a supercritical boiler in Iatan Unit 2, KCPL defined the source to include a supercritical boiler.

104. Requiring KCPL to adhere to its own description of the proposed source is not “redefining” the source.

105. DNR violated the requirement to specify BACT for Iatan Unit 2 by failing to specify in the Permit that Iatan Unit 2 would employ a supercritical boiler.

COUNT V: DNR MADE AN ERRONEOUS DETERMINATION OF BACT-BASED EMISSION LIMITS FOR PARTICULATE MATTER (PM/PM$_{10}$)

106. Petitioner realleges and hereby incorporates by reference paragraphs 1 through 105 above.

107. Missouri and federal law require new sources, as well as existing sources that undertake major modifications, in PSD areas to employ the Best Available Control Technology (“BACT”) for pollutants emitted in significant amounts. 10 CSR 10-6.060(8)(B)1; 42 U.S.C. § 7475(a)(4).

108. Selecting BACT technology also involves “specification of an emission limitation that relates to effective use of the BACT control technology.” Permit at 28.

109. The Permit specifies the use of a “fabric filtration system (baghouse(s))” (“baghouse technology”) as BACT for control of PM/PM$_{10}$ from the pulverized coal boilers at Iatan Unit 1 and Iatan Unit 2.
110. “Pulse-jet” and “reverse air” baghouses are subsets of the category of baghouse technology.

111. The Permit fails to specify emission limitations for PM/PM$_{10}$ emissions that reflect the effective use of the identified BACT technology.

112. KCPL’s permit application states that baghouse technology is capable of emissions reductions up to 99.9999% removal efficiency. Application at 5-8.

113. The Permit’s emissions limits do not reflect this level of removal efficiency.

114. The Permit’s PM/PM$_{10}$ emission limits fall significantly below the lower level of PM/PM$_{10}$ reduction effectiveness claimed in KCPL’s permit application as feasible for the technology that will be used.

115. DNR unreasonably failed to consider lower PM/PM$_{10}$ emissions limits required in other recent permits, as described by Sierra Club and EPA in their comments on the draft permit.

116. Lower BACT emissions limits required in other permits cannot be dismissed from consideration because of the method of compliance determination for those limits.

117. Some recent permit decisions that specify lower PM/PM$_{10}$ emissions limits than in the Iatan Permit determine compliance with a continuous emissions monitoring system for particulate matter, as required by the Permit.

118. DNR’s use of the recently-revised New Source Performance Standards (“NSPS”) to determine BACT-based emissions limits is inappropriate and unlawful.

119. The Permit specifies the use of wet flue gas desulfurization (“wet FGD”) for control of sulfur dioxide, but fails to acknowledge that FGD technology also controls PM/PM$_{10}$ emissions.
120. The Chiyoda bubbling jet reactor is a type of wet FGD system that removes a high percentage of PM/PM\textsubscript{10}.

121. DNR failed to consider PM/PM\textsubscript{10} emissions limitations based on the use of specific types of the identified technologies, including the combination of baghouse technology and a bubbling jet reactor.

122. The Permit fails to specify emission limitations for PM/PM\textsubscript{10} that reflect the effective use of the identified technology(ies).

123. DNR unlawfully failed to set BACT-based emissions limits for PM/PM\textsubscript{10} emissions from the Iatan Generating Station project.

**COUNT VI: DNR UNLAWFULLY FAILED TO SPECIFY BACT FOR OPACITY EMISSIONS**

124. Petitioner realleges and hereby incorporates by reference paragraphs 1 through 123 above.

125. Missouri and federal law require new sources, as well as existing sources that undertake major modifications, in PSD areas to employ the Best Available Control Technology (“BACT”) for pollutants emitted in significant amounts. 10 CSR 10-6.060(8)(B)1; 42 U.S.C. § 7475(a)(4).

126. The definition of BACT expressly includes a limit on visible emissions. 10 CSR 10-6.020(2)(B)5.

127. The definition of “emission limitation” expressly includes “any requirement which limits the level of opacity.” 10 CSR 10-6.020(2)(E)3.

128. “Opacity” refers to visible emissions.

129. The Iatan Generating Station project will emit visible pollutants subject to BACT.
130. The Permit includes limits on opacity.

131. Neither KCPL nor DNR conducted a BACT analysis for opacity.

132. The Permit limits for opacity do not reflect BACT-based emission limits.

133. Other states impose BACT-based emission limits on opacity in their PSD permits.

134. DNR violated its duty under Missouri and federal law to specify BACT-based permit limits for opacity from the Iatan Generating Station project.

COUNT VII: DNR DEPRIVED THE PUBLIC OF A MEANINGFUL OPPORTUNITY TO COMMENT ON THE PERMIT’S EMISSION LIMITS FOR SULFURIC ACID MIST

135. Petitioner hereby realleges and incorporates by reference paragraphs 1 through 134 above.

136. 10 C.S.R. 10-6.060(8)(C) states that all PSD permit applications are subject to the public participation requirements of 10 C.S.R. 10-6.060(12)(B).

137. 10 C.S.R. 10-6.060(12)(B) states that the permitting authority shall provide public notice of a permit application. Notice shall describe the details of the project, including emission impacts and emission control determinations. The permitting authority then must consider all written public comments in making a final decision on the permit.

138. In the draft permit, DNR stated that the Iatan Generating Station project would “net out” of PSD requirements regarding sulfuric acid mist emissions.

139. Based on DNR’s determination that the Iatan Generating Station Project would “net out” of PSD requirements, the draft permit did not contain a BACT-based emission limit for sulfuric acid mist emissions.

140. In its comments on the draft permit, petitioner Sierra Club noted that the calculations in the draft permit regarding baseline sulfuric acid mist emissions from Iatan Unit 1
were erroneous, and that the project would not net out of PSD requirements for sulfuric acid mist emissions.

141. In the final Permit, DNR stated that the calculations supporting KCPL’s claim to net out of PSD requirements for sulfuric acid mist emissions and Petitioner’s revised netting calculations were probably erroneous because KPCL’s baseline emissions were too high.

142. DNR in effect has acknowledged that the proposed project may cause a significant emission increase of SAM because the baseline emissions are lower than claimed by KCPL.

143. DNR added Special Condition 22.A-B to the Permit to address the baseline emissions issue. This condition requires KCPL to conduct emission tests to determine actual baseline emissions of sulfuric acid mist from Iatan Unit 1.

144. Special Condition 22.C-D offers KCPL a post-Permit opportunity to develop “new emission limits” for sulfuric acid mist emissions from modified Unit 1 and new Unit 2.

145. Special Condition 22.E provides that, if KCPL is not able to develop new emission limits that enable it to avoid a significant emissions increase in sulfuric acid mist emissions, then KCPL must conduct a BACT analysis and submit it to DNR for review and approval.

146. Special Condition 22 provides for a post-Permit determination of BACT for sulfuric acid mist emissions from the Iatan Generating Station project.

147. Special Condition 22 deprives the public of an opportunity to review and comment on new, post-Permit emission limits, including but not limited to BACT-based emission limits, for sulfuric acid mist emissions from the Iatan Generating Station project.
148. DNR violated 10 C.S.R. 10-6.060(12)(B) when it provided in Special Condition 22 for the development of new emission limits for sulfuric acid mist, without public input, after the issuance of the final Permit.

149. Missouri and federal law require DNR to make a BACT determination and include a BACT limit in the Permit, not at some future time. 10 CSR 10-6.060(8)(B)1; 42 U.S.C. § 7475(a)(4).

150. Baseline sulfuric acid mist emissions are widely and routinely calculated using standard emission estimating procedures. These procedures are generally more accurate than testing because test methods were not developed for Powder River Basin coal fired plants and have well known interferences and limitations.

151. The Iatan Generating Station project will exceed the PSD significance threshold of 7 tons/year for sulfuric acid mist and thus trigger the need for BACT, unless KCPL agrees to modify the project as proposed. Therefore, BACT must be required in the final Permit.

152. The Permit limit for sulfuric acid mist emissions is appreciably higher than a BACT-based emission limit.

153. DNR violated Missouri and federal law by issuing the Permit without a BACT-based emission limit for sulfuric acid mist.

COUNT VIII: DNR DEPRIVED THE PUBLIC OF A MEANINGFUL OPPORTUNITY TO COMMENT ON SULFUR DIOXIDE MODELING

154. Petitioners reallege and incorporate by reference paragraphs 1 through 153 above.

155. Missouri law requires that before issuing a PSD construction permit, the Director of DNR shall “determine if the ambient air quality standards in the vicinity of the source are
being exceeded and shall determine the impact on the ambient air quality standards from the source.” § 643.075.3, R.S.Mo. (2000).

156. Missouri regulations preclude DNR from issuing a construction permit unless it determines that the proposed source “will not… interfere with the attainment or maintenance of air quality standards,” 10 C.S.R. 10-6.060(6)(A)2, or “cause or contribute to ambient air concentrations of excess of any maximum allowable” increment, 10 CSR 10-6.060(6)(A)3.

157. Under both Missouri and federal law, DNR may not issue a PSD permit unless the applicant affirmatively demonstrates that the proposed project “will not cause or contribute to ambient air concentrations in excess of any ambient air quality standard or any maximum allowable increase over the baseline concentration in any area.” 10 CSR 10-6.060(8)(C)3. See also 42 USC § 7475(a)(3).

158. Missouri regulations, 10 CSR 10-6.060(8)(C)3, require extensive air quality impact analyses for each pollutant the facility will emit in excess of de minimis emission levels listed in 10 CSR 10-6.020(3)(A) Table 1.

159. For “applications with the potential to emit fifty (50) tons or more of particulate matter or sulfur dioxide” the applicant must “supply ambient air quality modeling data for the pollutant to determine the air quality impact of the installation.” 10 CSR 10-6.060(6)(B)(3).

160. The Iatan Generating Station project has the potential to emit more than 50 tons per year of sulfur dioxide.

161. The public participation requirements of 10 C.S.R. 10-6.060(12)(B) apply to permit reviews under 10 C.S.R. 10-6.060(6) and 10 C.S.R. 10-6.060(8).
162. The public participation procedures of 10 C.S.R. 10-6.060(12)(B) require the opportunity for a public hearing and written comments, which DNR must consider in making a final permit decision.

163. The results of a required air quality impact analysis must be made available at the time of a public hearing on the permit application. 42 USC §§ 7475(a)(2), (e)(2), (e)(3)(C).

164. The draft permit contained no SO₂ air quality impact modeling.

165. When DNR issued the final Permit, DNR made available to the public near-field SO₂ modeling regarding the Iatan Generating Station project. SO₂ Modeling Memo, Jan. 27, 2006.

166. DNR did not make the near-field SO₂ modeling available to the public prior to the issuance of the final Permit.

167. Neither KCPL nor DNR made the near-field SO₂ modeling available at the time of the public hearing as required by Missouri and federal law.

168. DNR deprived the public of an opportunity to comment on the near-field SO₂ air quality impacts of the Iatan Generating Station project, in violation of 10 C.S.R. 10-6.060(12)(B) and 42 USC § 7475(a)(2).

169. Petitioners reserve the right to challenge the conclusions stated in the SO₂ modeling memo.

170. A critical analysis of the SO₂ Modeling Memo, in light of the underlying data, may support the conclusion that DNR improperly issued the Permit in light of unacceptable SO₂ air quality impacts.
171. DNR’s SO2 Modeling Memo states that “Far-field impacts are under evaluation…and results will be provided as an update to the permit file for this project upon completion.”

172. DNR has not provided any information to the public regarding far-field SO2 air quality impacts of the Iatan Generating Station project.

173. DNR is depriving the public of an opportunity to comment on the far-field SO2 air quality impacts of the Iatan Generating Station project, in violation of 10 C.S.R. 10-6.060(12)(B) and 42 USC § 7475(a)(2).

174. The Permit (p. 34) provides as follows: “Note: The 3-hour and 24-hour SO2 emission limitations for the Unit 1 and Unit 2 pulverized coal boilers are subject to modification dependent upon the results of an ongoing ambient air quality analysis for SO2. If modified, these emission limitations will be decreased, not increased.”

175. This Note highlights the potential significance of the ongoing SO2 air quality impact analyses, which DNR has not yet made available to the public.

176. DNR is depriving the public of an opportunity to comment on any future change in emission limitations that may occur as a result of the ongoing SO2 air quality impacts analysis, in violation of 10 C.S.R. 10-6.060(12)(B) and 42 USC § 7475(a)(2).

COUNT IX: DNR FAILED TO ENSURE THAT THE IATAN GENERATING STATION PROJECT WOULD NOT CAUSE OR CONTRIBUTE TO EXCESSIVE SULFUR DIOXIDE (SO2) CONCENTRATIONS.

177. Petitioners reallege and incorporate by reference the allegations in paragraphs 1 through 176 above.
178. Missouri law requires that before issuing a PSD construction permit, the Director of DNR shall “determine if the ambient air quality standards in the vicinity of the source are being exceeded and shall determine the impact on the ambient air quality standards from the source.” § 643.075.3, R.S.Mo. (2000).

179. Missouri law further states: “The director … may deny a construction permit if the source will appreciably affect the air quality or the air quality standards are being substantially exceeded.” § 643.075.3, R.S.Mo.

180. Missouri regulations preclude DNR from issuing a construction permit unless it determines that the proposed source “will not… interfere with the attainment or maintenance of air quality standards,” 10 C.S.R. 10-6.060(6)(A)2, or “cause or contribute to ambient air concentrations of excess of any maximum allowable” increment, 10 CSR 10-6.060(6)(A)3. See also 10 CSR 10-6.060(8)(C).

181. For “applications with the potential to emit fifty (50) tons or more of particulate matter or sulfur dioxide” the applicant must “supply ambient air quality modeling data for the pollutant to determine the air quality impact of the installation.” 10 CSR 10-6.060(6)(B)(3).

182. The Iatan Generating Station project has the potential to emit more than 50 tons per year of sulfur dioxide.

183. DNR did not require KCPL to submit ambient air quality modeling data sufficient to determine the air quality impact of sulfur dioxide emissions from the Iatan Generating Station project.

184. Neither KCPL nor DNR conducted modeling sufficient to determine whether sulfur dioxide concentrations in the area already exceed National Ambient Air Quality Standards or the maximum allowable increment.
185. DNR released a near-field sulfur dioxide modeling memo when it published the final Permit.

186. DNR has not completed far-field sulfur dioxide modeling associated with the Iatan Generating Station project.

187. The Permit (p. 34) provides as follows: “Note: The 3-hour and 24-hour SO$_2$ emission limitations for the Unit 1 and Unit 2 pulverized coal boilers are subject to modification dependent upon the results of an ongoing ambient air quality analysis for SO$_2$. If modified, these emission limitations will be decreased, not increased.”

188. This Note acknowledges that the Permit as issued may not be sufficient to ensure that the Iatan Generating Station project is not causing or contributing to excessive concentrations of sulfur dioxide.

189. DNR unlawfully issued the Permit without conducting sulfur dioxide modeling sufficient to ensure that the Iatan Generating Station project will not cause or contribute to excessive concentrations of sulfur dioxide, in violation of the National Ambient Air Quality Standard or maximum allowable increment.

190. DNR unlawfully issued the Permit without conducting sulfur dioxide modeling sufficient to ensure that sulfur dioxide standards in the area are not already being substantially exceeded.

WHEREFORE, petitioner Ozark Chapter of the Sierra Club respectfully requests that the Missouri Administrative Hearing Commission recommend and that the Missouri Air Conservation Commission grant the following relief:

1) Vacate the decision of the DNR to issue the Permit;
2) Order DNR to conduct a thorough investigation of whether KCPL modified Iatan Unit 1 and previously triggered the need for a PSD permit, including the application of Best Available Control Technology, and/or previously triggered the applicability of New Source Performance Standards;

3) Order DNR not to allow KCPL to net out of PSD review for the nitrogen oxide and sulfur dioxide emissions from the Iatan Generating Station unless the baseline emissions are reduced to reflect legally-required pollution controls triggered by any and all prior modifications;

4) Order DNR not to issue another PSD permit for the Iatan Generating Station project without conducting complete and adequate air quality impact modeling for sulfur dioxide and nitrogen oxides, without ensuring that the project will not cause or contribute to violations of applicable National Ambient Air Quality Standards and maximum allowable increments, and without imposing BACT-based permit limits for sulfur dioxide and nitrogen oxide emissions;

5) Order DNR not to issue another PSD permit for the Iatan Generating Station without including Integrated Gasification Combined Cycle in the BACT analysis;

6) If pulverized coal technology is used, order DNR not to issue another PSD permit for the Iatan Generating Station without specifying the use of a supercritical boiler;

7) Order DNR not to issue another PSD permit for the Iatan Generating Station without specifying BACT-based opacity limits for pollutants with visible emissions;
8) Order DNR to revise the BACT-based permit limits for PM/PM$_{10}$ to reflect the control efficiency achievable by the selected technology;

9) Order DNR not to issue another PSD permit for the Iatan Generating Station without specifying a BACT-based emission limit for sulfuric acid mist;

10) Order DNR not to issue another PSD permit for the Iatan Generating Station without completing all necessary air quality impact analyses prior to publishing the draft permit for public comment, and making such analyses and underlying data available for public comment;

11) Order Respondent DNR to pay Petitioner’s reasonable expenses and attorneys’ fees pursuant to Missouri law, § 536.087 R.S.Mo.; and

12) Grant such additional relief as the Commission deems appropriate.

Respectfully submitted,

[Signature]

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