

The Commission, having considered Arkansas Power & Light Company's Application For Permit (first submitted October 1, 1973 and last amended October 25, 1974), and having reviewed the staff recommendations as summarized in the attached Summary Report, does hereby approve said application subject to the conditions specified in the attached Summary Report. Further, the Commission does hereby approve the issuance of Commission Permit No. 263-A to the Arkansas Power & Light Company for the construction and operation of a coal-fired steam electric generating station, as described in the attached Summary Report, subject to all general terms and all special terms and conditions of the Permit and Summary Report, as described therein.

COMMISSIONERS














Betty Fran Submitted by Jarrell Southall date passed 22 November
Chairman 1974

DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
D.A.P.C.

SUMMARY REPORT OF PERMIT APPLICATION

SUBMITTED BY: ARKANSAS POWER & LIGHT COMPANY (AP&L)

Post Office Box 551, Little Rock, Arkansas 72203

CSN: 350110

3/23/74; 5/30/74;

6/7/74; 9/25/74;

FIRST SUBMITTAL: October 1, 1973 AMENDED: 10/25/74

CASE REFERENCES: White Bluff

SUMMARY: AP&L first proposed four (4) coal-fired steam electric generating units of 800 megawatt gross output with each served by a stack of 750' and a cooling tower of 400'. During hearings before the Arkansas Public Service Commission (Docket No. U-2488) in which hearings the Department was an intervenor, it was determined, among other things, that stack reconfiguration was desirable. The Public Service Commission's Order (Certificate of Environmental Compatibility and Public Need) issued October 11, 1974 authorized only two (2) units with each unit served by a combined 1,000' stack.

Configured as specified by the Public Service Commission's Order, the emissions from White Bluff are not expected to exceed any applicable standard except Section 8 of the Air Code, and then only during certain adverse meteorological conditions. The applicant has stated that it would prevent such violations by reducing to necessary amounts the amount of coal fired during such meteorological conditions. The applicant has not specified the manner in which these meteorological conditions would be predicted and production reduced. Hence, Condition No. 7 of this permit requires that the applicant submit such plans for the approval of the Commission.

The applicant has outlined a broad environmental monitoring program designed to assess the effects of the emissions of the White Bluff facility on the air, water and land, including materials and vegetation. Notably lacking in the description of this monitoring program are the procedures by which the information derived from the program would be assimilated, evaluated and reported. For this reason and because further refinements may be appropriate, Condition No. 5 of this permit requires the applicant to submit, for the Commission's approval, more detailed and specific plans of the monitoring program as such program relates to the monitoring of concentrations of air contaminants and the effects of these contaminants.

The applicant proposes that the New Source Performance Standards for sulfur dioxide will be met by the use of low sulfur coal. The staff is concerned, however, that the normal variations in sulfur content of the coal, in addition to the uncertain degree of sulfur

retention in the ash, may cause the emissions to approach or even exceed the New Source Performance Standards unless special precautions are taken. For this reason, Condition No. 6 of the permit is attached to assure that the sulfur content is adequately characterized to assure compliance with this standard. Once the coal has been characterized and sulfur retention studies have been made, it may be found that special vigilance in fuel monitoring and mixing will be unnecessary. Until such findings, however, the staff believes special efforts to be necessary.

Equipment Description:

Two (2) Combustion Engineering Corporation tangentially fired units with two (2) drums each burning pulverized coal. Maximum heat input of $8,335 \times 10^6$ BTU/hr at maximum firing rate. Emissions from each unit are proposed to be ducted to a dual-flue 1,000' stack. Also serving each unit will be a 400' cooling tower.

Emissions from the above described equipment (per unit) are as follows:

<u>Source</u>	<u>Contaminant</u>	<u>Peak Load Emission Rates Without Controls in lb/hr and (lb/10⁶ BTU Input)</u>	<u>Maximum Proposed Emission Rate in lbs/hr and (lb/10⁶ BTU Input)</u>
Stack	SO ₂	8448 (1.01)	8448 (1.01)
	NO _x	5001 (0.6)	5001 (0.6)
	Particulates	45,292 (5.43)	226 (0.027)
Cooling Tower	Particulates	70	70

Special conditions of the permit are as follows:

- CONDITIONS: (1) Emissions from facility shall comply with all applicable emission regulations and boundary line standards adopted by the Commission and the United States Environmental Protection Agency.
- (2) Emissions from the facility shall not interfere with the attainment and maintenance of the National Ambient Air Quality Standards.

- (3) Applicant shall comply with all monitoring requirements established by the United States Environmental Protection Agency and other monitoring requirements established as conditions of this permit.
- (4) The facility shall be designed and so constructed to facilitate the installation of flue gas scrubbers should such scrubbers be later found necessary to comply with requirements of the United States Environmental Protection Agency or should such scrubbers be later found necessary by the Commission to protect the health and welfare of the public.
- (5) Prior to January 1, 1976, the permittee shall submit to the Department approvable plans for an air quality monitoring program which program will be initiated at least 18 months prior to commencement of Unit No. 1's operation and which program shall continue in a manner approved by the Commission. The required plans shall specify, as a minimum, the contaminants and effects to be monitored; the methods to be employed; descriptions of sampling schedules, sampling equipment and locations of such equipment; and the procedures by which sampling and analytical data is to be compiled, evaluated and reported.
- (6) Prior to January 1, 1977, the permittee shall submit to the Department an approvable plan setting forth procedures for coal sampling and, as necessary, coal blending in order that compliance with the New Source Performance Standards for sulfur dioxide will be assured.
- (7) Prior to January 1, 1977, the permittee shall submit to the Department an approvable plan describing the methods which the permittee proposes to evaluate the need for, and characteristics of, a load reduction program (or intermittent control system) which load reduction would be made to assure that ground level concentrations of sulfur dioxide, directly attributable to the permitted facility, will not exceed $533 \mu\text{g}/\text{m}^3$ for any thirty minute duration. Said evaluation is to be initiated with commencement of Unit No. 1's operation such that a load reduction program, if found necessary, can be developed and approved by the Commission prior to commencement of Unit No. 2's operation.

ESTIMATED COST FOR AIR POLLUTION CONTROL: \$65,000,000

ESTIMATED COST FOR TOTAL PROJECT: \$425,000,000

COMMENCEMENT OF INSTALLATION: Upon approval of Commission

COMPLETION DATE: Unit No. 1, January, 1978; Unit No. 2, May, 1978

REVIEWED BY: LEH, CDH APPROVED: JES

RECOMMENDATION: Approval

ASSIGNED PERMIT NUMBER: 263-A

COMMISSION MINUTE ORDER NUMBER: