

JAN 14 1986 *BAH*

Memorandum

To : Lloyd L. Dillon
Compliance Project Manager
California Energy Commission
1516 - 9th Street
Sacramento, CA 95814

DOCKET 79-AFC-4 C
DATE: JAN 7 1986
RECD: JAN 14 1986

Date : January 7, 1986

File No.:

Subject: Bottle Rock Powerplant
Performance Test Plan

From : Department of Water Resources

Attached for your review is a draft of the Performance Test Plan which is to comply with Section 1 "Air Quality" Modified Determination of Compliance (MDOC) Condition No. 14 of the Bottle Rock Compliance Monitoring Plan.

We request that you coordinate your comments with Mr. Robert L. Reynolds, Director for the Lake County Air Pollution Control District.

Should you have any questions, please contact Gurmel Singh of my staff at 454-7417.



James R. Snow, Chief
Compliance Monitoring Section
Division of Operations and
Maintenance

Attachment

1/2/86

DRAFT

H₂S AIR EMISSIONS COMPLIANCE TEST
FOR
BOTTLE ROCK POWERPLANT

DECEMBER 8, 1985

DRAFT

PURPOSE:

Detailed Performance Test plan to demonstrate that the applicable H₂S emissions limitations are being maintained during normal power plant operations at the Bottle Rock Powerplant.

SECONDARY CONSIDERATIONS:

The particulate emissions rate from the cooling tower, and components of particulates emitted shall also be determined.

SAMPLING ACCESS:

Incoming steam is sampled at the power plant main steam supply stop valve. A water cooled sample line is provided to condition the sample.

Freshly treated condensate is sampled at the gas ejector after cooler drain fitting.

Treated "sweet" gas is sampled from the Stretford system discharge line.

Cooling tower stack discharge is accessed by scaffold. A beam will be supported above 3 of the stack structures to support instrumentation and samplers for the test.

Cooling tower basin water samples can be taken directly from the cooling tower basin or line taps anywhere in the cooling water system before the condenser.

Secondary abatement hydrogen peroxide feed rate will be determined by by calibrating the positive displacement feed pumps.

TESTS:

The material to be tested and the tests to be performed are:

- 1). Incoming steam flow
 - total steam flow, TSF
 - total H₂S, H₂S's
 - total boron, B's
 - non-condensable/condensable ratio NC/C
 - methane CH₄ 'NC
 - hydrogen

- 2). Hot well condensate
 - boron, B'HW
 - H₂S, H₂S' HW
 - pH

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TESTS:

3). Sweet gas
H₂S, H₂S' STG
CH₄, CH₄' STG
H₂,

4). Chemical feed
H₂O₂ 'F
catalyst, C'F

5). Circulating water
boron, B'C

Cooling tower stack discharge 3 cells

1. velocity profiles
2. H₂S level
with & without H₂O₂ injection