

Commonwealth Edison Company

ONE FIRST NATIONAL PLAZA ★ CHICAGO, ILLINOIS

Address Reply to:

POST OFFICE BOX 767 ★ CHICAGO, ILLINOIS 60690

September 24, 1971

Dr. Peter A. Morris, Director
Division of Reactor Licensing
U.S. Atomic Energy Commission
Washington, D.C. 20545



Subject: Proposed Change No. 7 to Appendix A,
DPR-25, AEC Dkt 50-249

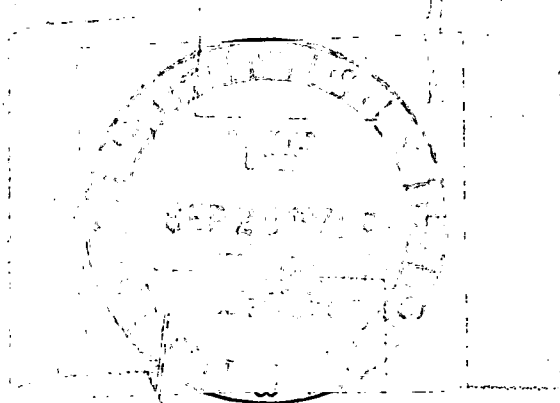
Dear Dr. Morris:

Pursuant to Section 50.59 of 10 CFR Part 50 and paragraph 3.B of Facility License DPR-25, Commonwealth Edison Company hereby submits Proposed Change No. 7 to Appendix A of DPR-25 (Dresden Unit 3). The purpose of this change is to allow a substitution of the steam jet air ejector off-gas monitors to perform the monitoring function of the plant chimney monitoring system. This substitution would only be effective during steady state operation of the plant or during testing to determine the plateout of iodine and particulates in the chimney off-gas monitoring system piping.

Attached is a description of a chimney sample line plateout test which we propose to conduct at Dresden Unit 2/3. A safety evaluation of this change is provided below.

The major off-gas from a boiling water reactor comes from the steam jet air ejectors. This off-gas is routed to a 30-minute hold-up pipe and then to the plant chimney. The remaining off-gas comes from the gland seal system of the turbine. This off-gas is routed from the gland seal condenser to the plant chimney.

Normally the off-gas is monitored by the plant chimney monitors. This system is described in Section 7.6.2.3 of the Dresden 2/3 FSAR. In addition to the above monitors, monitors are also provided at the discharge of the steam jet air ejectors.



4225

CB

Commonwealth Edison Company

Dr. Peter A. Morris

- 2 -

September 24, 1971

This monitoring system is described in Section 7.6.2.2 of the FSAR. Both of the above systems monitor the off-gas discharge from Dresden Units 2 and 3. The only difference between the air ejector off-gas monitors and the plant chimney monitors is that due to the 30-minute hold-up of the off-gas and consequent decay of the off-gas.

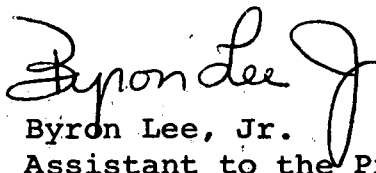
During steady state operation the air ejector off-gas monitor readout and the plant chimney monitor readout can and have been correlated. Thus, during steady state output of the reactor the air ejector off-gas monitors provide the same information as the chimney monitors and can be used to monitor off-gas releases.

During tests to determine the plateout of iodine and particulates in the chimney sample line the reactor will be operated in a steady state condition. Thus, during this test the air ejector off-gas monitors can be used to monitor off-gas releases. During this testing the chimney monitors will be inoperative due to the installation of test equipment (see attached write-up).

Proposed Change No. 7 has been reviewed and approved by Commonwealth Edison's Nuclear Review Board.

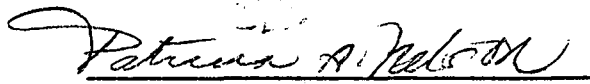
In addition to three signed originals, 19 copies of this proposed change are also submitted.

Very truly yours,



Byron Lee, Jr.
Assistant to the President

SUBSCRIBED and SWORN to
before me this 24th day
of September, 1971.


Notary Public

3.8 LIMITING CONDITION FOR OPERATION

3.8 RADIOACTIVE MATERIALS

Applicability:

Applies to the radioactive effluents from the plant.

Objective:

To assure that radioactive material is not released to the environment in an uncontrolled manner and to assure that any material released is kept as low as practicable and, in any event, is within the limits of 10CFR20.

Specification:

A. Airborne Effluents

1. Radioactive gases released from the reactor building ventilation stack and plant chimney shall be continuously monitored. To accomplish this, at least one reactor building ventilation stack monitoring system and plant chimney monitoring system shall be operable at all times. During the period when plateout tests are being performed on the chimney monitoring system and the reactor is operating at a steady state the steam jet air ejector monitors may be used to satisfy the plant chimney monitoring requirements.

4.8 SURVEILLANCE REQUIREMENT

4.8 RADIOACTIVE MATERIALS

Applicability:

Applies to the periodic monitoring and recording of radioactive effluents.

Objective:

To ascertain that radioactive releases are within allowable values.

Specification:

A. Airborne Effluents

1. The plant chimney and reactor building ventilation stack monitoring systems shall be functionally tested and calibrated every three months.

Received w/lt dated 9-24-71

3.8 LIMITING CONDITION FOR OPERATION

2. Due to the existence of Dresden Unit 1 and two Dresden Unit 2/3 stacks in close vicinity, a set of equations are needed to express the airborne effluents limits. The symbols in the equations stand for the following:

Q_1 = release rate from Unit 1 plant chimney

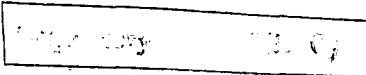
Q_2 = release rate from Units 2 and 3 plant chimney with only Unit 2 or only Unit 3 operating (not both).

$Q_{2,3}$ = release rate from Units 2 and 3 plant chimney with both Units operating

Q_{RS} = release rate from Units 2 and 3 reactor building ventilation stack.

4.8 SURVEILLANCE REQUIREMENT

Received w/ Ltr Dated 9-24-71



Received w/Ltr Dated 9-24-71

DRESDEN STATION UNIT 2/3

CHIMNEY SAMPLE LINE PLATEOUT TEST

Introduction

In response to a request by AEC Region III Division of Compliance we have developed a test to determine the amount of plateout of iodines and particulates in the 2/3 chimney sample line. To perform this test the plant chimney monitor will be inoperable for a short period of time while test equipment is being installed and removed.

Description

To perform the chimney sample line plateout test, it is necessary to install a test section, with a particulate and iodine filter, as near as possible to the inlet of the sample probe which is at the 200' elevation of the chimney (see attached sketch). The test program is summarized below.

1. Operate at steady state for approximately 3 days.
2. During the first 12 hours collect particulate and iodine samples using the installed vent stack monitoring system filters.
3. Install the test section and remove installed filters. (This is necessary to maintain essentially constant pressure drop and flow through the sample system.)
4. Collect particulate and iodine samples with the test section filters for 12 hours.
5. Remove test section and install normal sampling filters.
6. Repeat Steps 2 through 5 twice.

Operation with the test section in series with the installed sample equipment would result in increased pressure drop and reduced flow through the system. This would result in obtaining samples which are not representative of those which are obtained during normal operation of the sampling equipment. To obtain representative samples and meaningful results, it is necessary to install the test section during plant operation. This will result in a loss of stack gas monitoring during the period of changeout. (Estimated time for initial changeout -- $\frac{1}{2}$ to 3 hours). Additional changeouts -- approximately 15 to 20 minutes.

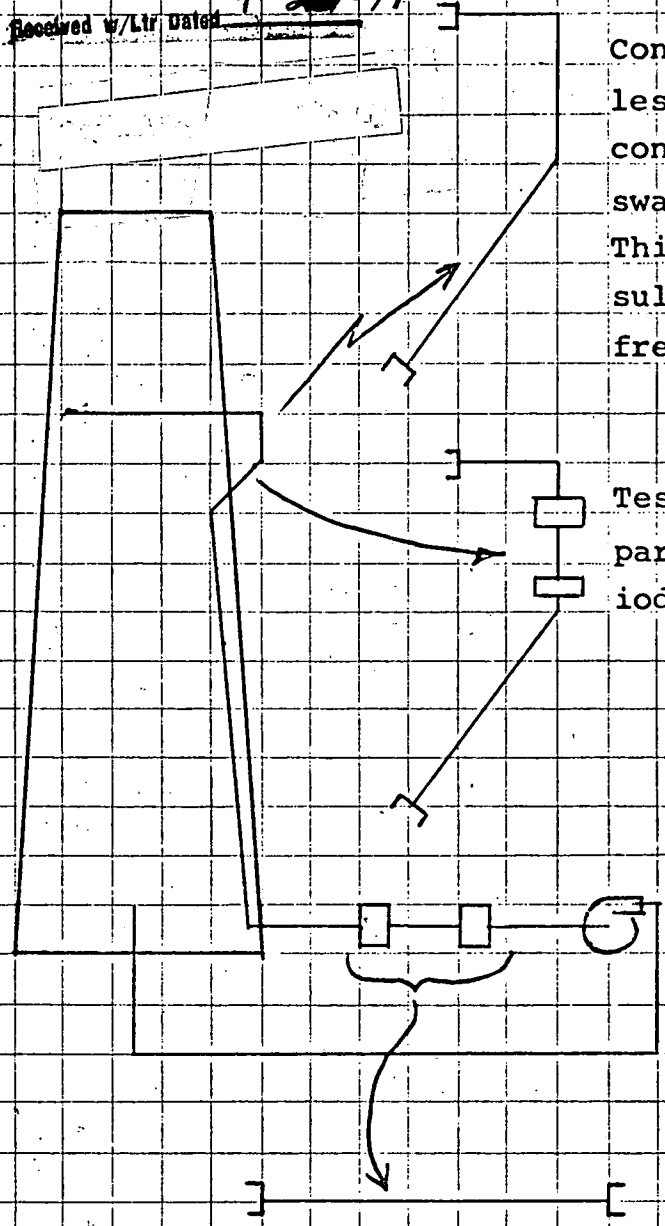
Safety Evaluation

The major sources of radioactivity released from the vent chimney are the condenser off-gas flows from Units 2 and 3. During the portions of the test when the test section is being installed and when the vent chimney monitor is inoperative the air ejector off-gas monitoring systems (FSAR Page 7.6-2) will provide continuous monitoring of off-gas radioactivity. The read out from the air ejection off-gas monitoring is equivalent to that from the chimney monitor. The difference between the air ejector monitors and the chimney monitors is that due to the thirty minute hold up.

In addition the reactors will be operating at steady power during the test and any change in the rate of gaseous radioactive releases will be small during the short time periods the chimney monitor is inoperable. Further, inoperability of the chimney monitoring system in no way reduces the capability of the units to function in accordance with the FSAR for all postulated accident conditions.

We conclude there are no unreviewed safety hazards result from the proposed testing.

Received w/Ltr Dated 9-2-71



Continuous stainless steel tubing, connected with swagelock fittings. This tubing is insulated to prevent freezing.

Test section, with particulate and iodine filter.

Test section to be installed when iodine and particulate filters are installed at isokinetic probe.