



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

June 26, 1979

50-3
-250
-251
-282
-295
-304
-306

GL-79-24

ALL PRESSURIZER WATER REACTORS

IN CULTURE LOCKED FOR NOW

Gentlemen:

Recently, because of operator error, an inadvertent reactor scram and safety injection occurred during monthly surveillance tests of the safeguards system at a PWR facility.

At the time of the event, train "A" of the safeguards system had been placed in "test", and the operator, in addition to inserting a high steam flow signal required by the test, inadvertently incorrectly inserted a low steam pressure signal. This action resulted in a low steam pressure signal (signifying a main steam line break) in train "A" which initiated main steam isolation valve (MSIV) isolation and a reactor scram. One MSIV, however, did not close because of a valve solenoid failure. The resultant differential pressure between two steam lines initiated a safety injection signal from train "B". In the ensuing events several more equipment failures occurred. One feedwater regulation valve failed to close because of another solenoid failure. The steam driven auxiliary feedwater pump tripped on overspeed and one of the steam generator atmospheric relief valves failed to fully reseal upon closure.

This occurrence, with its ensuing sequence of events, is of concern to the NRC staff because of the serious questions that are raised due to the multiple equipment failures and whether a very real problem could exist that has not been analyzed. For example, the potential for common mode failures (in this case two apparently independent solenoid valve failures) should be investigated to ensure that a problem does not exist which could negate the criteria assumed in your previous accident analyses or which could lead to an overall reduction in system reliability.

This occurrence is also of concern because of an apparent sense of complacency towards periodic surveillance requirements in general and on engineered safeguards systems in particular which has all too often resulted in inadvertent reactor scrams and safety injection system actuations. From the standpoint of unnecessary challenges to the reactor trip and the safeguards systems and the imposition of unnecessary thermal stress cycles on reactor coolant system and its components, this is undesirable.

K.B.

7909140043

11A4

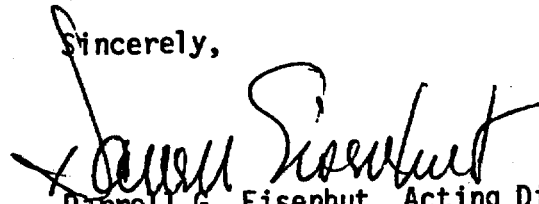
~~7909140043~~
730 P

June 26, 1979

You and your plant supervisors should review the events described in this letter, to determine whether similar errors have occurred or could occur at your facility and whether the potential exists for a problem associated with occurrences that you have not previously considered. In addition, it is requested that management policies and procedures be reviewed and strengthened as necessary to assure that multiple equipment failures in safety-related systems will be vigorously pursued and analyzed to identify potential failure modes not previously considered that could lead to a significant reduction in the ability of safety systems to function as required. Finally, you are requested to review your engineered safety system surveillance procedures to determine whether appropriate cautions are included and to ensure that plant operators and supervisors are aware of the importance of avoiding challenges to the protective features of your facility.

Within 30 days of receipt of this letter, please submit, in accordance with 10 CFR §50.54(f) of the Commission's regulations, the results of these reviews. In addition to licensing reviews of these matters, we have requested that the NRC's Office of Inspection and Enforcement perform a followup inspection on these matters in the near future.

Sincerely,

A handwritten signature in dark ink, appearing to read "Darrell G. Eisenhut", is written over the typed name and title.

Darrell G. Eisenhut, Acting Director
Division of Operating Reactors
Office of Nuclear Reactor Regulation