



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 29 TO PROVISIONAL OPERATING LICENSE NO. DPR-45

DAIRYLAND POWER COOPERATIVE

LA CROSSE BOILING WATER REACTOR

DOCKET NO. 50-409

1.0 INTRODUCTION AND DISCUSSION

A. Pressure Switch Testing

On May 19, 1981, by telephone and letter (LAC-7555) Dairyland Power Cooperative (DPC) reported an inadequacy in the implementation of administrative and procedural controls which caused a reduction in the degree of redundancy provided in reactor protection systems and a potential degradation of primary containment.

On May 17, 1981, a LACBWR Supervisor discovered a modification had been made to the Containment Building pressure sensing line leading to Pressure Switch 37-35-702 which activates 1B High Pressure Core Spray Pump (HPCS) and 1B High Pressure Service Water (HPSW) Alternate Core Spray (ACS) Pump and sends half the opening signal to the AC Alternate Core Spray Valve on high Containment Building pressure of 5 psig. The installation had been made without an approved Maintenance Request or Facility Change. The modification consisted of an additional pressure switch, two additional valves and 3/8 in. copper tubing (See Fig. 1). The modification had been assembled and leak tested at 60 psig without leakage prior to being installed.

During the installation on April 1, 1981, the valve between the containment wall and the Pressure Switch 37-35-702 had been closed for approximately one minute. If the Containment Building had become pressurized during this time, the 1B HPCS Pump, 1B HPSW/ACS Pump and AC ACS Valve would not have received a high pressure actuating signal. The 1A HPCS Pump, 1A HPSW/ACS Pump and DC ACS Valve and other starting signals, were unaffected by the installation. Therefore, the installation process reduced the degree of redundancy in these systems, but would not have prevented system actuation if required.

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A leakage test was not performed after installation so that it could not be established that the fitting connecting the modification and the sensing line would not leak in excess of Technical Specification limits when internally exposed to 52 psig and that containment integrity existed. The licensee requested permission to shut valve 37-28-012 long enough (1) to test the new connections, in order to assure that containment integrity had been maintained, and (2) to remove the unauthorized modification and restore the system to its original configuration.

B. High Radiation Area

By letter dated September 24, 1981, DPC requested that the NRC amend section 6.12 of the LACBWR Technical Specifications. The original request was then modified by telephone discussions as detailed in Section 2.0 (B) below.

2.0 EVALUATION

A. Pressure Switch Testing

In his letter of May 19, 1981, the licensee included a copy of the proposed procedure to test the modification and restore the system. The procedure included the stationing of an additional operator to monitor reactor conditions during the evaluation and to be ready to activate the HPCS and ACS if they should be needed. The licensee estimated that the entire evolution would take about one hour to complete. Because the 1B HPCS pump and 1B HPSW pump continued to be manually operable, because a special operator for the HPCS and ACS would be stationed during the modification, and because the modification would take such a short time to complete, we determined that a temporary technical specification change was appropriate and acceptable. We, therefore, approved the following additional paragraph for Section 4.2.2.15 on May 19, 1981:

"Core spray pump 1B may be removed from service for up to one hour for maintenance of pressure switch 37-35-702. This provision shall be effective at 4:00 p.m. CDT May 19, 1981 and shall expire at 12:01 a.m. CDT on May 22, 1981."

This emergency action was confirmed by NRC letter dated May 20, 1981.

B. High Radiation Area

Entry into high radiation areas requires positive control of personnel within those areas. Conditions for each entry should be presented in a manner which is both logical from the standpoint of good radiation protection practice and unambiguous so that each of the alternative methods for control of entry will provide reasonable protection of personnel. The Standard Technical Specification (STS) has been written to clearly address the manner in which radiation protection practice may be exercised for positive control for entry into high radiation areas. The La Crosse submittal of September 24, 1981 falls short of this practice.

In a telephone conversation between R. Dudley, NRC, and representatives from Dairyland Power Cooperative (DPC), DPC suggested further revision to the technical specification for high radiation area access control.

The licensee proposed:

1. they be exempted from the requirement in 10 CFR 20.203 to lock entrances in excess of 100 mrem/hr,
2. that control of access to areas with dose rates between 100 mrem/hr and 1000 mrem/hr, and
3. access to areas with dose rates in excess of 1000 mrem/hr be controlled in accordance with 10 CFR Part 20.203.C.2 (ii) and (iii).

However, the licensee's proposal did not include a provision for controlling entry into with dose rates in excess of 1000 mrem/hr by use of a Special Work Permit (SWP).

It is the Staff's position that all entries into high radiation areas (dose rates in excess of 100 mrem/hr) must be controlled by a SWP that specifies information and precautions necessary for safe entry and work in such areas.

The proposed technical specification changes, as modified, could retain the features of the Standard Technical Specification that are necessary for controlled entry into any high radiation area while, at the same time allowing use of the controls specified in 10 CFR 20.203(C)2, for entry into high radiation areas in excess of 1000 mrem/hr. We, therefore, find the proposal, as modified, acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

We have determined that this amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

### 4.0 CONCLUSION

We have concluded, based on the consideration discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner,

and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ACKNOWLEDGEMENTS

The following NRC personnel have contributed to this evaluation:

J. Minus  
R. Dudley  
R. Caruso

Attachment:  
Figure 1

Date: July 30, 1982

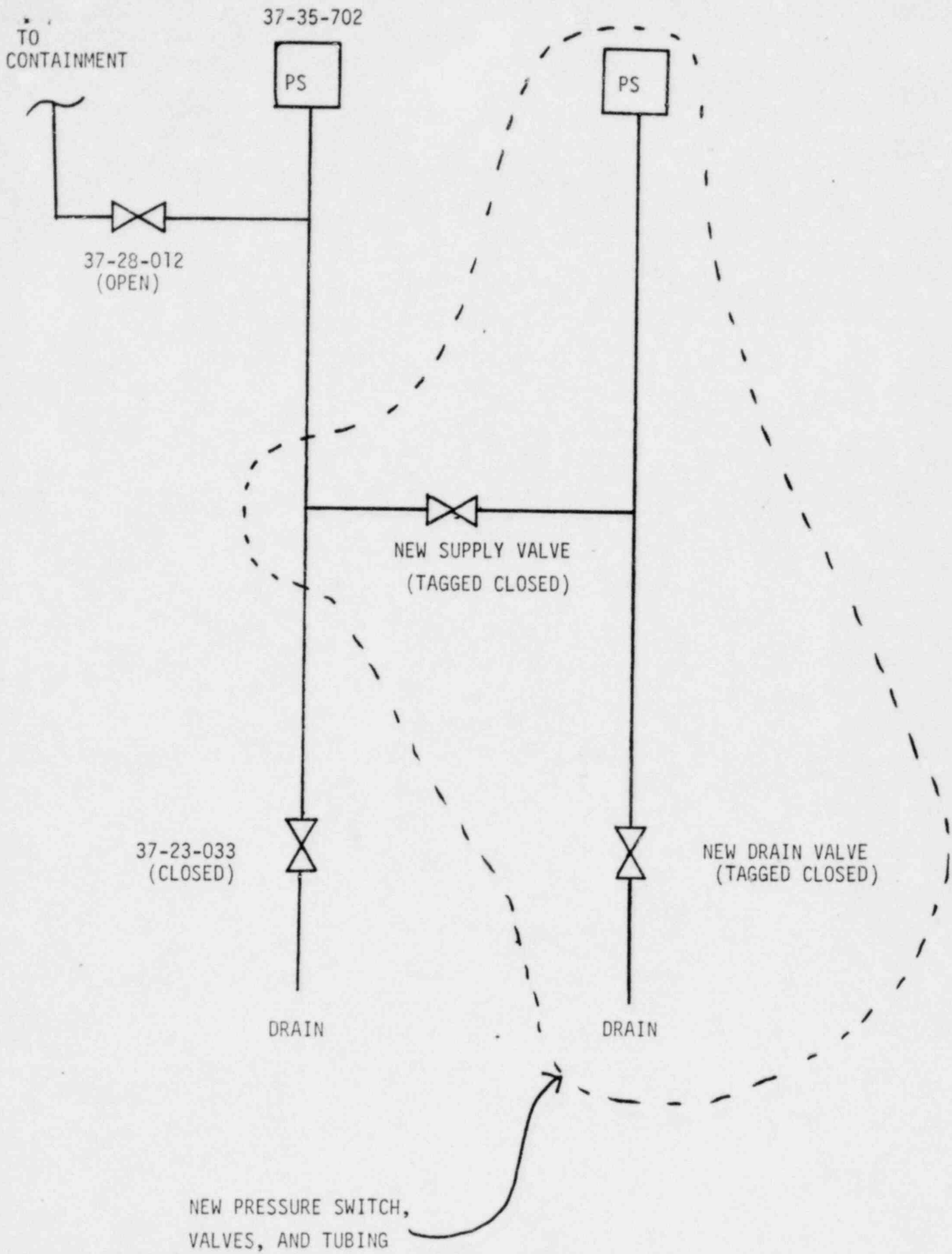


FIGURE 1

REFERENCES

1. Frank Linder (DPC), letter to Dennis M. Crutchfield (NRC), LAC-7555, May 19, 1981.
2. Frank Linder (DPC), letter to Dennis M. Crutchfield (NRC), LAC-7825, September 24, 1981.