Consumers Power Company

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Director, Nuclear Reactor Regulation
Att Mr Dennis M Crutchfield, Chief
Operating Reactors Branch No 5
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 -
PALISADES PLANT - SEP TOPIC VII-3, SYSTEMS REQUIRED FOR SAFE SHUTDOWN
(EICS MATTERS)

By letter dated September 30, 1981, the NRC transmitted a revised evaluation for SEP Topic VII-3 for the Palisades Plant. A brief review of this report disclosed several items for which additional comments would be appropriate. In particular, the new batteries which are being installed have sufficient capacity to carry al DC loads until the delayed access path for off-site AC power is energized (even if 4-6 hours were required); and some of the staff conclusions regarding plant instrumentation should be changed based on the additional information provided. Detailed comments on these items are attached.

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ATTACHMENT

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PALISADES PLANT
SEP TOPIC VII-3
Comments concerning Staff Evaluation of 9-30-81

1. Pages 3, 4 and 6: The new station batteries have been discussed previously in CPCo letter dated September 23, 1981 (re Topic VI-7.C.1). As stated in comment seven of that letter, these batteries have been very conservatively sized with a nominal capacity of 1800 A-H each. If the post-accident loads are assumed to be comparable to the very conservative values determined in the 2-hour load study for battery sizing, then the calculated times to discharge the batteries would be 7.3 hours for station battery no. 1 and 5.4 hours for battery no. 2. It must be stressed that these values are based on a two-hour load profile used to conservatively size the new batteries, not to accurately predict actual expected load. If a more realistic approach is taken and the two-hour design load profile is followed with the expected long term steady state loads of 86 amps for battery no. 1 and 84 amps for battery no. 2, then batteries 1 and 2 should be capable of carrying all DC loads for about 16.8 hours and 15.5 hours respectively. These values assume that no DC power is supplied from the chargers.

   In actuality, then, the phrase "two hour nominal capacity" does not accurately describe the new batteries. The capacity is considerably greater than two hours, and is adequate to carry all DC loads until the delayed access path for offsite power is energized - even if energizing that path takes six hours.

2. Pages 10 and 11: The discussion in the topic evaluation neglects to take into account the Thermal Margin/Low Pressure (TM/LP) trip circuitry; it is correct that certain scenarios can be envisioned which could cause two of the four pressurizer pressure trip channels to fail low. If a third channel were by-passed, resulting in 2/3 trip logic, a PCS high pressure trip could be prevented. It is pertinent however, that PT 0102 A, B, C and D also provide the pressure input signals for the TM/LP trip. The pressure setpoint for this trip varies with PCS temperature and reactor power level.

   The same occurrence which might remove power or damage cabling from PT 0102 A-D to cause the pressure signal to fail low would also directly cause the TM/LP circuitry to trip the reactor. The loss of the high pressure reactor trip would, therefore, be inconsequential.

3. Page 15: The subject of power and instrumentation for boric acid heat tracing has been discussed previously in CPCo letter of August 17, 1981. In this context it would be more appropriate to say that the heat tracing and power sources do not meet current licensing guidance as opposed to current requirements. As stated previously, CPCo believes that the quality of the installed equipment, the redundant instrumentation and the reliability of the power sources coupled with the stored heat capacity of these insulated lines make the system design of a quality commensurate with its safety function. Further changes would do little more than provide more paper with esentially no effect on overall plant safety.

4. Page 24: The valves on the top of the page should be CV 0940 and CV 0911.

5. Page 28: As discussed in Comment no. 1 above, the new station batteries have sufficient capacity to carry expected loads for considerably more than 4 - 6 hours. As of this writing, one of the new higher capacity station batteries has been installed, and the second will be installed prior to startup from the current refueling outage..

6. Pages 32 and 33: With respect to CCW system and charging flow indications, CPCo has previously discussed our belief that the installed instrumentation is sufficient. In these cases, installation of different or redundant instruments would have little or no effect on overall plant safety, and are therefore unwarranted.