

Consumers Power Company

Palisades Plant

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SFC 80-053

Service water discharge check valve seats (originally 410SS) were replaced with CS Stellite 21 mating surface and welded to the inlet body.

Safety Evaluation Summary

This change, as made, is functionally equivalent to the previous conditions, therefore an unresolved safety question does not exist.

SFC 80-184

Auxiliary feedwater pump safety grade auto starting initiating circuits were installed for steam generator low level indication per NUREG 0578.

Safety Evaluation Summary

This modification provided independent multiple channels by using separate raceways, conduit, and junction boxes to ensure system flexibility while maintaining plant safety at all times, therefore improving the margin of safety.

SFC 81-212SFC 81-213SFC 81-214

These three specification field changes replaced failed excore ion chamber detectors with ion chambers made by a different manufacturer.

Safety Evaluation Summary

The replacement ion chambers are functionally equivalent, therefore an unreviewed safety question does not exist.

SFC 82-029

Under this field change a ½" stainless steel valve was added to a motor operated leak off line to allow better control of leakage from the packing gland.

Safety Evaluation Summary

The leak off line was non seismic. Failure of the leakoff line does not change pressure boundaries, and was designed for full PCS pressure/temperature. An unreviewed safety question does not exist, and complete failure of this valve would not alter the motor operated valve design, function or operability.

SFC 82-054SFC 82-055

Under each of these SFC's a pipe support was analyzed and modified to assure that the pipe and supports fully comply with FSAR Appendix A criteria. They were final items completed in response to NRC IE Bulletin 79-14.

Safety Evaluation Summary

These two supports increased the structural integrity of the critical service water and HPSI piping, increasing the margin of safety provided for these systems under the Tech. Specs.

SFC 82-056**

This Specification Field Change was initiated to modify a pipe hanger on the SIS and long term cooling lines to increase load capabilities, insuring compliance with FSAR Appendix A criteria and IE Bulletin 79-14.

Safety Evaluation Summary

This modification ensures compliance with the FSAR criteria and increases the structural integrity and safety margins for this system.

SFC 82-060

This modification added a 1/2" stainless steel valve to a control valve leakoff line to allow better control of leakage from the packing gland.

Safety Evaluation Summary

This leakoff line was not seismic. Failure of the leakoff line does not change pressure boundaries, and was designed for full PCS pressure/temperature. An unreviewed safety question does not exist, and the valve's complete failure would not alter the control valve design, function or operability.

SFC 82-064

This specification field change was initiated to allow the deplugging of steam generator tubes which had been erroneously plugged 6 to 8 years ago; and for the inspection of these tubes by Eddy Current testing methods after deplugging.

Safety Evaluation Summary

The deplugging of these tubes was done under approved plant procedures. The Eddy Current testing was done under CFCO approved NDE procedures. An unreviewed safety question did not exist, and the margin of safety was not reduced.

SFC 82-066

This field change provided an engineering analysis to allow the revision of the heat treatment on bolting of a safety related tank. (SIRWT)

Safety Evaluation Summary

The change in heat treatment does not adversely affect the in-service performance of the alloy (6061), and does not change the failure modes or failure probabilities, and it's use is permitted under ASME Section II, SB-211. The margin of safety is therefore unchanged.

SFC 82-068

This specification field change provided an engineering evaluation of material substituted by the manufacturer for safety class equipment. (Component cooling system PV discs.)

Safety Evaluation Summary

The material substituted passes adequate strength, hardness, ductility, toughness and corrosion resistance controls, and does not change the function or operability of the valve; thus an unreviewed safety question does not exist.

SFC 82-069

This specification field change provided an engineering evaluation allowing the substitution of material by the manufacturer for safety classes equipment on the engineering safeguard system. (RV disc.)

Safety Evaluation Summary

The material substituted passes adequate strength, hardness, ductility, toughness, and corrosion resistance control, and does not change the function or operability of the valve, thus an unreviewed safety question does not exist.

SFC 82-095

This change added a $\frac{1}{2}$ " stainless steel valve to a control valve leakoff line on the CVCS system to allow better control of leakage from the packing gland.

Safety Evaluation Summary

The leakoff line was non seismic. Failure of the leakoff line does not change the pressure boundary, and was designed for full PCS pressure/temperature. An unreviewed safety question does not exist, and complete failure of this valve would not alter the control valve design, function or operability.

SFC 82-096

This specification field change provided engineering evaluation of various heat treatments for material substituted by the manufacturer for internal parts for the safety injection pumps.

Safety Evaluation Summary

The function and/or operation of the pumps remain unchanged due to the substitution involved. The material is technically adequate; no new failure mechanisms were created, and the probability of failure is unchanged.

SFC 82-136

This modification was initiated to enable a valve replacement to a pipe, which involved a modification to a pipe coupling on the ESS system. The coupling was bored out on both ends, and fillet welded to preclude leakage.

Safety Evaluation Summary

The coupling and the welds met or exceeded FSAR requirements, therefore the modification did not reduce operability or the function of the system involved.

SFC 82-158

Under this specification field change modifications were made to control valves CV-0823 and CV-0824 to accommodate air actuators.

Safety Evaluation Summary

The modification to the valves does not change the mode of operation of these valves, therefore the possibility of valve failure is unchanged.

SFC 82-162

This specification field change covers the replacement of a boric acid heat trace circuit.

Safety Evaluation Summary

The replacement heater installed under this change has a high wattage, therefore the probability of malfunction of this circuit is decreased.

SFC 82-185

This specification field change replaced the startup detectors and pre-amplifiers with different types on NI-0001, NI-0002, NI-0003 and NI-0004.

Safety Evaluation Summary

The system design was unchanged, and the replaced components should result in more reliable information/instrumentation, thus enhancing the margin of safety.

FC 303 and FC 303-3

These facility changes covered the construction of a feedwater purity building and tie-ins to existing plant systems. This long term modification covered numerous subsystems over an extended period of time. Although the modifications have been operational for several years, the facility change package was not closed out until 1982.

Safety Evaluation Summary

This modification was considered by SARB (Safety and Audit Review Board) as not constituting an unreviewed safety question. (See SARB meeting notes 11/25/75)

FC 344

This modification added a DC power supply to position indicators for safety injection tank outlet valves indicating system.

Safety Evaluation Summary

The change to a DC power supply for these valves provides a more reliable source of power, thus the margin of safety is increased.

FC 344A

The installation of two spare electrical cannisters in the containment building penetrations in connection with FC 344 was documented in FC 344A.

Safety Evaluation Summary

These electrical cannisters have no more probability of failure than those already installed, thus the margin of safety is not decreased.

FC 389

Installation of a redundant vacuum degasifier vacuum pump was performed under this facility change, including necessary supporting equipment and controls.

Safety Evaluation Summary

The installation of this redundant equipment improves plant reliability which decreases the possibility of an accident.

FC 439

Under this facility change the boric acid heat trace system installed completely replaced the boric acid heat trace system with a new and different type, and added circuit failure monitoring, temperature recording and in-service testing capabilities.

Safety Evaluation Summary

The modernization of this system and the installation of additional equipment increased the reliability of this system, thus increasing the margin of safety.

FC 486

This modification covered the installation of new auxiliary feedwater lines to steam generator auxiliary feedwater nozzles and flow distribution systems, replacing the auxiliary feedwater entry into the main feedwater lines.

Safety Evaluation Summary

The margin of safety is increased because of this modification in that it reduces the potential of water hammer which could cause a feedwater line failure.

FC 496

This facility change documents Palisades Core 5 reload.

Safety Evaluation Summary

Reference NRC Safety Evaluation supporting Amendment 68 to provisional operating license No. 20, Consumers Power Co., Palisades Plant, Docket No. 50-255, dated December 8, 1981. (Notice of issuance of amendment to provisional operating license - 7590-01).

FC 515

(TMI modification) Under this facility change a new control panel (C11A) was installed in the Control Room.

Safety Evaluation Summary

This panel has no control function effect on accident or malfunction probabilities to consequences for equipment important to safety.

FC 516-1

Phase II - Auxiliary feedwater system (NUREG 0737) - Installation of redundant manual valves in the suction line of the auxiliary feedwater pumps, and the removal of the Y strainer internals were the modifications made under this facility change.

Safety Evaluation Summary

This modification was performed to provide an additional flow path in the event of a failure of one of the manual valves in the suction line of the auxiliary feedwater pumps. The removal of the Y strainer reduces chances of the strainer becoming plugged and cutting off flow to the pumps. This modification reduces the consequences of an accident or malfunction to equipment important to safety.

FC 531

This modification installed a manual isolation valve on the service water piping supply header to enable isolation of the non seismic portion of piping going to the air conditioners, without isolating the main control room air conditioner chillers. (IE Bulletin 79-14)

Safety Evaluation Summary

The possibility of malfunction of equipment important to safety is decreased by this modification in the case of a seismic accident.

Special Test Procedure T-150

Local Leak Rate Test for Personnel Air Lock Inner Door Equalizing Valve. This special test was performed during cold shutdown conditions, and containment integrity was not required during the performance of the test.

Safety Evaluation Summary

This special test procedure did not create an accident or a malfunction of a different type than previously evaluated.

Special Test Procedure T-154

Personnel Air Lock Inner Door Between the Seals Local Leak Rate Test.

Safety Evaluation Summary

This special test related only to radiological leakage during accident conditions and did not affect or create an accident of a different type than evaluated previously.

Special Test Procedure T-158

Boric Acid Gravity Feed Line Test. The purpose of this special test was to prove operability of the boric acid gravity feed line after maintenance by verifying flow, resulting in an increase of boric acid to the Primary Coolant System, verifying that the line was free of obstructions.

Safety Evaluation Summary

This special test afforded a method to prove the operability of the gravity feed line, thus increasing the margin of safety.