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August 30, 2002
L-02-092

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
Commitment Changes and
Report of Facility Changes, Tests and Experiments

In accordance with 10 CFR 50.59(d)(2), the Report of Facility Changes, Tests, and Experiments for the Beaver Valley Power Station Unit No. 1 is provided as Attachment 1. This report provides a brief description of facility and procedure changes which required a 50.59 evaluation and a summary of each evaluation. The report covers the period of October 26, 2000, through February 27, 2002, which corresponds to a period ending with Fuel Cycle 9.

Two commitment changes are described in Attachment 2, and are forwarded as part of this submittal in accordance with the NRC endorsed guidance of the Nuclear Energy Institute (NEI) related to the commitment change process (Reference: NEI 99-04). There are no regulatory commitments contained in this letter or Attachment 1.

If you have any questions regarding this report, please contact Mr. Larry R. Freeland, Manager, Regulatory Affairs/Corrective Action at 724-682-5284.

Sincerely,

Mark B. Bezilla

c: Mr. D. S. Collins, Project Manager
Mr. D. M. Kern, Sr. Resident Inspector
Mr. H. J. Miller, NRC Region I Administrator

IE47

Beaver Valley Power Station Unit 2
Attachment 1
Facility Changes, Tests, and Experiments
October 26, 2000 - February 27, 2002
Table of Contents

Change Title
DCP 2435, Automatic Recirculation Control Valve at Discharge of High Head Safety Injection (HHSI)/Charging Pump 2CHS*P21C

Change

Design Change Package (DCP) 2435 added an automatic recirculation control valve (ARV), on the discharge flange of the "swing" Charging / HHSI Pump. This valve was to perform the dual functions of a discharge check valve and mini-flow control valve. However, when the HHSI Full Flow Test, 2OST-11.14B, was performed on 2/16/02, results indicated that the ARV was not operating as expected. Therefore, the ARV was removed from the system and a contingency spool piece installed in its place pending further investigation.

Installation of the ARV was accomplished with minimal piping changes to the existing charging pump mini-flow system. The original mini-flow orifices, flow meters and valves were retained in their original location, but the original mini-flow line was capped, and the flowpath was rerouted to the ARV location on the charging pump. Subsequently, a spool piece was installed in place of the ARV to restore flow to the original components.

No adverse impacts on UFSAR described functions have been identified. Accident analyses discussed in the UFSAR would remain bounding for all cases, with either the ARV or the spool piece installed. No new accident precursors were created by the plant modifications. The potential for impact on the radiological consequences of design basis accidents was determined to be non-adverse. In conclusion, there was no need for a license amendment as a prerequisite to this modification.

Change Title
TER 11980, Establish Interim Administrative Limits on Maximum Allowable Power Range Neutron Flux High Setpoint versus Operable Main Steam Safety Valves

Change

Interim administrative limits on maximum allowable power range neutron flux high setpoint versus operable main steam safety valves were established to ensure protection from overpressure events resulting from reactor coolant system heatup and overpower transients where the plant would otherwise be without a conservative high neutron flux trip setpoint. The change does not involve an unreviewed safety question because the administrative limits ensure the Main Steam System does not exceed the licensing basis (110 percent of design pressure) when power operation is continued with inoperable main steam safety valves as allowed by Technical Specifications. Interim administrative limits were replaced by Technical Specification requirements. (Amendment 127) implemented in February of 2002.

Change Title
TER 12830, Evaluate Replacement for Instrument Air Bypass Filters 2IAS-FLT23 and 24 and 2IAC-FLT24

Change

This Technical Evaluation Report (TER) evaluated a replacement filter model, which is a coalescing type filter that removes only entrained water. The changed method of removing moisture (coalescing versus desiccant) preserved the function of the filter. This excessive detail is being removed from the UFSAR.

Loss or malfunction of the compressed air systems are bounded by the loss or malfunction of the safety systems served by compressed air. All such systems are designed to fail-safe and perform their safety function independent of the condition of the compressed air system. No unreviewed safety question is involved because the compressed air system is not required for engineered safety functions and no design basis accidents are impacted.

Change Title
TER 13314, Replacement of the Operator Interface Portion of the Digital Radiation Monitoring System

Change

The RM11, operator interface portion, of the Digital Radiation Monitoring System (DRMS) was upgraded with original equipment manufacturer recommended replacement equipment that has the same form, fit, and function. The RM11 (and the replacement equipment) is electonically isolated from the safety-related portions of the DRMS. The isolation devices are not within the scope of this equipment change and are not affected by the change.

The affected portion of the DRMS performs a monitoring function, and failure of this portion of the system cannot be the initiating event for a design basis accident. Therefore, the change does not involve an unreviewed safety question.

Change Title
TER 13545, Video Surveillance Valve Monitoring Camera

Change

A video camera was mounted in the "A" reactor pump cubicle. Equipment to operate the camera was located outside the cubicle and outside the containment crane wall. Cabling connected the video camera to the operating equipment, the operating equipment to a cable penetration, and the cable penetration to the receiver box located outside containment. This installation deviates from UFSAR Table 1.8-1 in that the cable material does not meet the flame retardant requirements of IEEE-383-1974.

The Unit 2 Fire Protection Safe Shutdown Report has been evaluated with the potential additional fire load in containment and is acceptable. This installation does not introduce an unreviewed safety question because the equipment is seismically mounted, the cables are installed meeting color separation criteria, and the additional combustible fire loading is within established limits.

Change Title
TER 13555, Update Unit 2 Fire Protection Safe Shutdown Report to Document Spurious Signal Analysis for Ventilation System Components

Change

Due to interlocks between opposite trains of ventilation systems, fire induced spurious signals in one train could result in tripping the opposite train fans. The spurious signals will be addressed by manual actions.

Appendix 9.5A of the UFSAR describes general safe shutdown methodology but does not contain this level of detail. The ability to safely shut down the plant after a fire is not adversely affected. Manual actions for reducing heat loads in the affected areas on loss of all ventilation are the same as the manual actions already specified for fires in other fire areas. Manual actions for affected emergency switchgear ventilation is the same as the manual actions already specified in operating procedures for spurious actuation of an auxiliary feed pump. Manual actions are not time-critical and will not significantly add to the burden on the operator to complete the required actions. Therefore, an unreviewed safety question is not involved.

Change Title
TER 13725, Remove Reference to Fire Barrier Between Turbine Building and the South Office Shops Building (SOSB) Railway Bay, and Between SOSB Railway Bay and the Remaining Area of the SOSB.

Change

UFSAR Appendix 9.5A was revised to remove a deviation related to the rolling steel door between the turbine building and the SOSB railway bay. The rolling steel door does not meet the three-hour fire barrier rating between the turbine building and SOSB railway bay. There also are no fire dampers in the ventilation duct between the SOSB railway bay and the SOSB general area. Appropriate text in the Updated Final Safety Analysis Report and Fire Protection Safe Shutdown Report was revised to remove reference to fire barriers between these areas.

No unreviewed safety question is involved because the Unit 2 Fire Protection Safe Shutdown Analysis is not affected by this change. A fire in the turbine building would not affect safe shutdown equipment other than the station air compressors, and safe shutdown can be accomplished with the loss of this equipment.

Change Title
Temporary Modification Clamping Open Atmospheric Steam Dump Valve 2SVS-PCV101A

Change

The purpose of this temporary modification was to allow an Atmospheric Steam Dump Valve (ASDV) to be disabled in the position credited by UFSAR accident analyses. Clamping the valve open ensures the design function of removing reactor decay heat to cooldown and depressurize following a steam generator tube rupture.

The normally open manual isolation valve associated with the ASDV would be closed and act as the isolation point for the "A" Steam Generator heat release pathway. Manual operation is

allowed by the Licensing Requirements Manual. This safety evaluation may also be applied if future maintenance of ASDVs is necessary.

This temporary modification does not represent an unreviewed safety question because disabling an ASDV and utilizing its isolation valve as the control point for the heat release pathway maintains the accident analysis function of the ASDV.

Change Title
Temporary Modification Disabling Chlorine Detectors and Removing of Chlorine Detector Requirement from the Licensing Requirements Manual

Change

This change removed the requirement for the chlorine detectors from the Licensing Requirements Manual Section 3.8, and eliminated the requirement to perform weekly and monthly surveillances associated with the Unit 2 control room chlorine detectors.

Since there are no longer any sources of gaseous chlorine (both on-site and off-site) that adversely impact the control room, it was concluded that no unreviewed safety question is involved.

Change Title
Administrative Procedure NPDAP 3.5, Fire Protection

Change

Administrative procedure NPDAP 3.5, Fire Protection, was revised to 1) increase the minimum Unit 1 CO_2 tank levels to assure capacity is available for two discharges, 2) clarify Fire Brigade staffing requirements, 3) allow the use of fire protection equipment for other purposes besides fire protection with appropriate evaluation and plant manager approval, 4) remove restrictions on hot work, 5) make editorial changes, and 6) add a form to document evaluations of Fire Protection Program changes in lieu of using the 10 CFR 50.59 process [per 10 CFR 50.59(c)(4)].

The changes made to administrative procedure NPDAP 3.5 do not increase the probability of occurrence or the consequences of an accident or malfunction of any post fire safe shutdown equipment as previously evaluated in the UFSAR. Also, since this change only affects the administrative controls of the fire protection program, and does not change the plant design or how the plant operates during a design basis fire scenario, the changes do not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. The change does not involve an unreviewed safety question.

Change Title
Clearance of Intake Structure Pump Cubicle Ventilation Alarm

Change

Plant operating clearance 2W00-44F-NSS-001 opened a knife switch that removed the automatic alarm function annunciator that notifies the control room of a ventilation problem in the intake structure pump cubicles. The alarm is actuated by automatic trip of the ventilation fans and cubicle temperature. The clearance was installed due to spurious alarms in the pump cubicle.

The clearance did not affect the functions of the ventilation. The alarm function for temperature was maintained by the Unit 1 ventilation system which shares the cubicle.

The removal of the alarm did not reduce the ability of the Intake Structure ventilation system to perform its safety function, to remove heat created by the operating pumps in the cubicle. The removal of the alarm function only reduced the ability to detect automatic trips of the fans. Additionally, the Unit 1 ventilation system is the preferred system in the pump cubicles. The Unit 1 system has 100% capacity. Therefore, it was determined that a license amendment is not required.

Change Title
Changes to Turbine Trip - Reactor Trip Response Time on Steam Generator Water Level - High - High Specified In Licensing Requirements Manual

Change

This change revised the Licensing Requirements Manual (LRM), engineered safety feature response time, for Turbine Trip - Reactor Trip on Steam Generator Water Level - High - High. The listed response time of "≤ 2.5" seconds was replaced with "Not Applicable" for turbine trip. The UFSAR accident analyses do not credit this function.

Eliminating the response time requirement for turbine trip on high-high steam generator water level from the LRM does not result in an unreviewed safety question because it will not adversely impact the results of the design basis accidents discussed in the UFSAR.

Change Title
Changes to Health Physics Program for Personnel Monitoring

Change

Changes to health physics program for personnel monitoring involving automatic reading systems, response check frequency and processing frequency for certain personnel monitoring devices, provisions of 10 CFR 20, elimination of annual bioassay for all radiation workers and addition of provisions for bioassay frequency based on instrument sensitivity and monitoring thresholds. The changes do not constitute an unreviewed safety question, because the changes were not related to plant design or operation and there could be no effect on plant design or operation and there could be no affect on plant design basis accident conditions, assumptions, probabilities or consequences.

Change Title
Evaluation of Out of Service Oil/Water Separator Sump Pump 2DBS-P44.

Change

This evaluation considers the impact of an out of service oil/water separator sump pump. This pump is used in an abnormal operating procedure and emergency operating procedure to pump the contents of the oil separator to one of the steam generator blowdown hold tanks if the secondary activity exceeds maximum permissible concentrations. The operating procedure

governing pump use has provisions to use a portable sump pump if the oil/water separator sump pump is tripped.

No unreviewed safety question is involved because no safety related structures, systems, or components are affected by the out of service sump pump.

Change Title
Basis for Continued Operation, Administrative Controls to Limit RCS and SG Specific Activity to Values More Conservative Than Current Technical Specifications Limits

Change

A Basis for Continued Operation (BCO) was written as contingency action should control room inleakage testing exceed the current dose calculation assumption of 10 cfm inleakage. Evaluations were performed for the BCO to show acceptable control room dose calculation results for up to 180 cfm inleakage. The BCO would expire upon entrance to Mode 4 following the 14th refueling outage at BVPS-1.

The BCO specified temporary compensatory actions to administratively reduce the BVPS Unit 1 Technical Specification limits for RCS specific activity and for steam generator specific activity. There were no compensatory actions specified for BVPS Unit 2.

The compensatory action would not adversely affect safety related systems or components. The new administrative limits were more conservative than technical specifications and maintained consistency with analyses results described in the UFSAR. Therefore, no unreviewed safety question is involved.

Change Title
UFSAR Change, Elimination of Reference to Hand-Pump as a Secondary Means to Operate the Main Feedwater Isolation Valve

Change

This change eliminated the reference in UFSAR Table 6.2-60 to a hand-pump as a secondary manual means to operate the main feedwater isolation valves. This rectifies a discrepancy between the as-built plant and the UFSAR. This change involves no physical modifications to the main feedwater isolation valves or the unit.

No unreviewed safety question was involved because (1) no credit is taken in any analysis for a secondary manual means of operating the main feedwater isolation valves, and (2) this change does not invalidate any safety analysis assumptions or conclusions involving the main feedwater system, main feedwater flow, main feedwater isolation or containment isolation.

Change Title
Modification of Response to Generic Letter 88-17 dated January 13, 1989
Condition Report 02-04676

Change

In accordance with the NEI Commitment Change process (NEI 99-04), a commitment contained in the BVPS response to NRC Generic Letter 88-17 issued on January 13, 1989 to maintain a self-study guide available for appropriate plant personnel as a training method to be used shortly before entering a reduced RCS inventory condition is being modified to use "Just-In-Time" training and the Infrequently Performed Task or Evolution (IPTE) program in place of a self-study guide. The use of this training and procedure meet the same objectives as intended by the original commitment and is equivalent to the original commitment.

Change Title
Modification of Response to Generic Letter 88-14, dated February 17, 1989
Reference: Condition Report 02-05026

Change

In accordance with the NEI Commitment Change process (NEI 99-04), a commitment contained in the BVPS response to Generic Letter 88-14 issued on February 17, 1989 that instrument air systems should maintain a dew point under 35°F is being modified to indicate that dew points on indoor installations may exceed 35°F provided the dew point at line pressure is at least 18°F below the minimum temperature to which any part of the instrument air system is exposed to at any season of the year. This modified commitment will be used to establish acceptance criteria for system operation. The revised commitment will continue to ensure liquid water free instrument air.