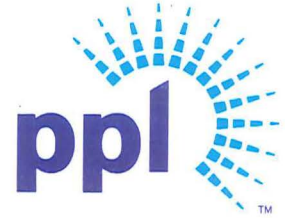


SEP 09 2013

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

**SUSQUEHANNA STEAM ELECTRIC STATION
RELIEF REQUESTS 1RR07 AND 2RR07 FOR
THIRD TEN-YEAR INTERVAL INSERVICE
TESTING PROGRAM PLANS
FOR SUSQUEHANNA SES UNIT 1 AND UNIT 2
PLA-7065**

**Docket No. 50-387
and No. 50-388**

PPL requests NRC approval of proposed Relief Requests 1RR07 and 2RR07 to the Third Ten-Year Interval IST Program Plans for Susquehanna SES Unit 1 and Unit 2 by February 1, 2014 to provide sufficient time to schedule and plan for the activity during the Unit 1 Spring 2014 Refueling and Inspection Outage.

Similar relief has been granted at other stations such as LaSalle (ADAMS Accession No. ML013110759) and River Bend (ADAMS Accession No. ML030450043).

These Relief Requests are associated with Technical Specification Amendments to eliminate the requirement for the Automatic Depressurization System (ADS) valves to open during manual actuation of the ADS circuitry. The Technical Specification Amendments were submitted on June 6, 2013 in PPL Letter PLA-6977.

There are no new regulatory commitments contained in this submittal.

Should you have any questions, please contact D. L. Filchner at (610) 774-7819.

Sincerely,



J. A. Franke

Attachment 1 – Relief Request 1RR07 for Third Ten-Year Internal Inservice Testing Program Plan for Susquehanna SES Unit 1

Attachment 2 – Relief Request 2RR07 for Third Ten-Year Internal Inservice Testing Program Plan for Susquehanna SES Unit 2

Copy: NRC Region I

Mr. J. E. Greives, NRC Sr. Resident Inspector

Mr. J. A. Whited, NRC Project Manager

Mr. L. J. Winker, PA DEP/BRP

ENCLOSURE 1 TO PLA-7065

**RELIEF REQUEST 1RR07 FOR THIRD TEN-YEAR
INTERVAL INSERVICE TESTING PROGRAM PLAN
FOR SUSQUEHANNA SES UNIT 1**

RELIEF REQUEST 1RR07

Relief in accordance with 10 CFR 50.55a (a)(3)(i)

Alternative Provides Acceptable Level of Quality and Safety

1. ASME Code Component(s) Affected

| Valve | System | Category | Class |
|-------------|----------------|----------|-------|
| PSV141F013A | Nuclear Boiler | C | 1 |
| PSV141F013B | Nuclear Boiler | C | 1 |
| PSV141F013C | Nuclear Boiler | C | 1 |
| PSV141F013D | Nuclear Boiler | C | 1 |
| PSV141F013E | Nuclear Boiler | C | 1 |
| PSV141F013F | Nuclear Boiler | C | 1 |
| PSV141F013G | Nuclear Boiler | C | 1 |
| PSV141F013H | Nuclear Boiler | C | 1 |
| PSV141F013J | Nuclear Boiler | C | 1 |
| PSV141F013K | Nuclear Boiler | C | 1 |
| PSV141F013L | Nuclear Boiler | C | 1 |
| PSV141F013M | Nuclear Boiler | C | 1 |
| PSV141F013N | Nuclear Boiler | C | 1 |
| PSV141F013P | Nuclear Boiler | C | 1 |
| PSV141F013R | Nuclear Boiler | C | 1 |
| PSV141F013S | Nuclear Boiler | C | 1 |

Function

These valves are Main Steam Safety/Relief Valves. They provide overpressure protection for the reactor coolant pressure boundary to prevent unacceptable radioactive release and exposure to plant personnel.

2. Applicable Code Requirement

ASME OM Code 1998 Edition through OMB-2000 Addenda

I-3410(d) Class 1 Main Steam Pressure Relief Valves with Auxiliary Actuating Devices.

“each valve that has been maintained or refurbished in place, removed for maintenance and testing or both, and reinstalled shall be remotely actuated at reduced or normal system pressure to verify open and closed capability of the valve before resumption of electric power generation. Set-pressure verification is not required.”

3. **Basis for Relief**

Currently at least 20% of the 16 Main Steam Safety/Relief Valves (MSRV) plus weeping valves detected during the previous operating cycle up to maximum of 8 valves are removed from the plant and setpoint tested during each refueling outage. The setpoint testing includes the manual actuation of the SRV valves and actuators via the bench test control system.

Experience at PPL Susquehanna SES, Unit 1 and Unit 2, has indicated that manual actuation of the MSRVS can lead to misalignment of the valve stems causing setpoint drift. The misalignment occurs between the spindle ball and the disc holder. This setpoint drift has been severe enough to cause the valves to fail their as-found setpoint test. For example, during the 2012 Unit1 refuel outage (U117RIO), Susquehanna had two MSRVS fail the Technical Specification allowable value of less than -5% of nameplate. The vendor of the valve (Anderson Greenwood/Crosby/Tyco) confirms that the manual actuation of the valves leads to setpoint drift in the lower direction. Evidence of the drift was seen during setpoint bench testing at Wyle labs.

The proposed Relief Request will allow the uncoupling of the MSRVS spindle from the plant installed manual actuation equipment prior to performing the post installation plant control circuitry test, thereby, allowing the verification that the plant installed manual actuation equipment functions without requiring the opening of the MSRVS and thereby, alleviating the misalignment issue. The MSRVS removed during each refueling outage will continue to be manually actuated by the bench-test valve control system of the setpoint testing program.

4. **Proposed Alternate Testing**

The remote actuation of the MSRVS, which have previously been removed for maintenance or refurbishment and replaced, shall be performed in two separate steps. The manual actuation of each valve by its actuator will be performed by the bench test valve control system of the setpoint testing program. This will verify that opening and closing of the valve by its actuator.

Following setpoint and certification testing, after installation in the plant, the valve actuator of each replacement SRV will be uncoupled from the valve spindle. The

actuators will then be exercised which will test the control signal circuitry, the air system components and the actuator without causing the valve to open.

This uncoupled actuator test will also be performed following any maintenance activity performed on the control circuitry/equipment that could affect the relief mode of the associated MSRV.

MSRVs that were maintained or refurbished in place will continue to be tested per the requirements of I-3410(d).

5. Duration of Relief Request

This proposed alternative is requested for the duration of the Third Ten –Year Interval for Susquehanna Steam Electric Station Unit 1 IST Program (June 1, 2004 through May 31, 2014).

ENCLOSURE 2 TO PLA-7065

**RELIEF REQUEST 2RR07 FOR THIRD TEN-YEAR
INTERVAL INSERVICE TESTING PROGRAM PLAN
FOR SUSQUEHANNA SES UNIT 2**

RELIEF REQUEST 2RR07**Relief in accordance with 10 CFR 50.55a (a)(3)(i)****Alternative Provides Acceptable Level of Quality and Safety****1 ASME Code Component(s) Affected**

| Valve | System | Category | Class |
|-------------|----------------|----------|-------|
| PSV241F013A | Nuclear Boiler | C | 1 |
| PSV241F013B | Nuclear Boiler | C | 1 |
| PSV241F013C | Nuclear Boiler | C | 1 |
| PSV241F013D | Nuclear Boiler | C | 1 |
| PSV241F013E | Nuclear Boiler | C | 1 |
| PSV241F013F | Nuclear Boiler | C | 1 |
| PSV241F013G | Nuclear Boiler | C | 1 |
| PSV241F013H | Nuclear Boiler | C | 1 |
| PSV241F013J | Nuclear Boiler | C | 1 |
| PSV241F013K | Nuclear Boiler | C | 1 |
| PSV241F013L | Nuclear Boiler | C | 1 |
| PSV241F013M | Nuclear Boiler | C | 1 |
| PSV241F013N | Nuclear Boiler | C | 1 |
| PSV241F013P | Nuclear Boiler | C | 1 |
| PSV241F013R | Nuclear Boiler | C | 1 |
| PSV241F013S | Nuclear Boiler | C | 1 |

Function

These valves are Main Steam Safety/Relief Valves. They provide overpressure protection for the reactor coolant pressure boundary to prevent unacceptable radioactive release and exposure to plant personnel.

2. Applicable Code Requirement

ASME OM Code 1998 Edition through OMB-2000 Addenda

I-3410(d) Class 1 Main Steam Pressure Relief Valves with Auxiliary Actuating Devices.

“each valve that has been maintained or refurbished in place, removed for maintenance and testing or both, and reinstalled shall be remotely actuated at reduced or normal system pressure to verify open and closed capability of the valve before resumption of electric power generation. Set-pressure verification is not required.”

3. **Basis for Relief**

Currently at least 20% of the 16 Main Steam Safety/Relief Valves (MSRV) plus weeping valves detected during the previous operating cycle up to maximum of 8 valves are removed from the plant and setpoint tested during each refueling outage. The setpoint testing includes the manual actuation of the MSRV valves and actuators via the bench test control system.

Experience at PPL Susquehanna SES, Unit 1 and Unit 2, has indicated that manual actuation of the MSRVs can lead to misalignment of the valve stems causing setpoint drift. The misalignment occurs between the spindle ball and the disc holder. This setpoint drift has been severe enough to cause the valves to fail their as-found setpoint test. For example, during the 2012 Unit1 refuel outage (U117RIO), Susquehanna had two MSRVs fail the Technical Specification allowable value of less than -5% of nameplate. The vendor of the valve (Anderson Greenwood/Crosby/Tyco) confirms that the manual actuation of the valves leads to setpoint drift in the lower direction. Evidence of the drift was seen during setpoint bench testing at Wyle labs.

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Following setpoint and certification testing, after installation in the plant, the valve actuator of each replacement MSRV will be uncoupled from the valve spindle. The

actuators will then be exercised which will test the control signal circuitry, the air system components and the actuator without causing the valve to open.

This uncoupled actuator test will also be performed following any maintenance activity performed on the control circuitry/equipment that could affect the relief mode of the associated MSR.V.

MSRVs that were maintained or refurbished in place will continue to be tested per the requirements of I-3410(d).

5. Duration of Relief Request

This proposed alternative is requested for the duration of the Third Ten –Year Interval for Susquehanna Steam Electric Station Unit 2 IST Program (June 1, 2004 through May 31, 2014).