

AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

10 CFR 50.55a

RS-07-121

August 30, 2007

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

Clinton Power Station, Unit 1
Facility Operating License No. NPF-62
NRC Docket No. 50-461

Subject: Requests for Relief from ASME OM Code 5-year Test Interval for Safety Relief Valves (Relief Requests 2208 and 2209)

In accordance with 10 CFR 50.55a, "Codes and standards," paragraph (a)(3)(ii), AmerGen Energy Company, LLC (AmerGen) requests NRC approval of proposed Relief Requests 2208 and 2209 to extend the 5-year test interval, on a one-time basis, for 14 Safety Relief Valves (SRVs) at Clinton Power Station (CPS) Unit 1.

Specifically, AmerGen requests relief from American Society of Mechanical Engineers/American National Standards Institute (ASME/ANSI) OMa-1988, "Operations and Maintenance of Nuclear Power Plants," 1987 Edition through 1988 Addenda (ASME OM Code), Part 1, "Requirements for Inservice Testing of Nuclear Power Plant Pressure Relief Devices," Section 1.3.3, "Test Frequencies, Class 1 Pressure Relief Valves," paragraph (b), "Subsequent 5-Year Test Periods."

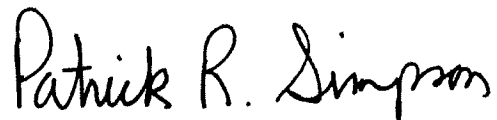
AmerGen requests approval of proposed Relief Request 2208 by September 13, 2007 to enable continued operation of CPS Unit 1 until the eleventh refueling outage (C1R11), which is currently scheduled to begin in January 2008. AmerGen requests approval of Relief Request 2209 by November 15, 2007 to enable startup of CPS Unit 1 following C1R11, and continued operation until the twelfth refueling outage (C1R12), which is currently scheduled to begin in January 2010.

There are no regulatory commitments contained within this letter.

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If you have any questions concerning this letter, please contact Mr. John L. Schrage at (630) 657-2821.

Respectfully,

A handwritten signature in black ink that reads "Patrick R. Simpson". The signature is written in a cursive style with a large initial "P".

Patrick R. Simpson
Manager - Licensing

Attachments: 1. Relief Request 2208
 2. Relief Request 2209

Attachment 1

Relief Request 2208

**Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(ii)
Impracticality without Compensating
Increase in Level of Quality or Safety**

Attachment 1
Relief Request 2208
Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(ii)
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1. ASME Code Component(s) Affected

Clinton Power Station (CPS) Unit 1, Safety Relief Valves (SRVs):
Model: G-471; Manufacturer: Dikkers Valves.

Table 1 provides valve-specific identification data, test dates, installation dates, and requested extension duration for the six valves.

2. Applicable Code Edition and Addenda

American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," ASME/ANSI OMa-1988, "Operations and Maintenance of Nuclear Power Plants," 1987 Edition through 1988 Addenda (ASME OM Code).

3. Applicable Code Requirement

ASME OM Code, Part 1, "Requirements for Inservice Testing of Nuclear Power Plant Pressure Relief Devices," Section 1.3.3, "Test Frequencies, Class 1 Pressure Relief Valves," paragraph (b), "Subsequent 5-Year Test Periods."

This section states that all valves of each type and manufacturer shall be tested within each subsequent 5-year period with a minimum of 20% of the valves tested within any 24 months. This 20% shall be previously untested valves, if they exist.

4. Reason for Request

10 CFR 50.55a(f)(4) directs a licensee to meet inservice testing requirements for ASME Code Class 1 valves set forth in the ASME OM Code and addenda. The second ten year inservice testing (IST) interval for CPS is based on the 1987 Edition through 1988 addenda of the ASME OM Code; and specifically, the 1987 Edition of the OM Code, Part 1 (OM-1), "Requirements for Inservice Performance Testing of Nuclear Power Plant Pressure Relief Devices."

The ASME OM Code, Part 10 (OM-10), Section 3.2, "Inservice Testing," states that inservice testing shall commence when the valves are required to be operable to fulfill their required function(s). OM-1, Section 4.3.1, "Safety and Relief Valves," directs that safety and relief valves meet the inservice testing requirements set forth in Part 1 of the ASME OM Code. Section 1.3.3.1 of the ASME OM Code states that Class 1 pressure relief valves shall be tested within the initial 5-year period, starting with initial electric power generation. This section also states that all valves of each type and manufacturer shall be tested within each subsequent 5-year period. The required test ensures that the SRVs, which are located on each of the main steam lines between the reactor vessel and the first isolation valve within the drywell, will open at the pressures bounded by the safety analysis.

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In accordance with 10CFR 50.55a, "Codes and Standards," paragraph (a)(3)(ii), AmerGen Energy Company, LLC (AmerGen) requests relief from the requirements of ASME OM Code, Part 1, Section 1.3.3.1 for six SRVs at CPS Unit 1 until the eleventh CPS Unit 1 refueling outage (i.e., C1R11), which is scheduled to begin in January 2008. The requested duration of the relief ranges from four months to nine months for the affected SRVs.

NUREG-1482, Revision 1, "Guidelines for Inservice Testing at Nuclear Power Plants," Section 3.1, "Inservice Test Frequencies and Extensions for Valve Testing," states that the NRC may approve relief to extend a test interval for extenuating circumstances in which (1) compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety, or (2) the system design makes compliance impractical. Impractical conditions that would justify a test deferral are those that result in an unnecessary plant shutdown, cause unnecessary challenges to safety systems, or cause unnecessary cycling of equipment. In addition, OM-10, Section 4.2.1.2(e), "Inservice Tests for Category A and B Valves," states that if exercising is not practicable during plant operation or cold shutdowns, it (testing) may be limited to full-stroke during refueling outages.

Compliance with the applicable requirements of the ASME OM Code for the six SRVs at CPS Unit 1, prior to C1R11 is not practical, in that the evolution would result in an unnecessary plant shutdown, unnecessary challenges to safety systems, and unnecessary cycling of equipment, all without a compensating increase in the level of quality or safety.

AmerGen currently replaces eight of 16 SRVs at CPS Unit 1 every refueling outage, so that all valves are removed and tested every two refueling outages. This methodology supports the ASME OM Code requirements for testing previously untested Class 1 pressure relief valves. After each valve is removed and as-found tested, the SRVs are refurbished to a like-new condition, and reset to an as-left value of plus or minus 1%.

AmerGen utilizes an ASME OM Code-certified off-site vendor to perform as-found and as-left testing, inspection, and refurbishment of the CPS Unit 1 SRVs. An AmerGen-approved and qualified procedure is used for disassembly and inspection of SRVs. This procedure requires that each SRV be disassembled and inspected upon removal from service, independent of the as-found test results. The procedure identifies the critical components that are required to be inspected for wear and defects, and the critical dimensions that are required to be measured during the inspection. If components are found worn or outside of the specified tolerance(s), the components are either reworked to within the specified tolerances, or replaced. Parts that are defective, outside-of-tolerance, and any reworked/replaced components are identified, and AmerGen is notified of these components by the off-site vendor. The SRV is then re-assembled, an as-left test is performed, and the SRV is returned to CPS.

An AmerGen qualified procedure is used at CPS Unit 1 for packaging, handling and storage of safety related equipment. Since the SRVs are safety related, the procedure requires storage within fire resistant, tear-resistant, weather-tight packaging, as well as inside a building or enclosure. The procedure also states that storage area or enclosure shall not be subject to flooding; the floor shall be paved or equal and well drained. The storage area

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must be provided with uniform heating and temperature control to prevent condensation and corrosion. Minimum and maximum temperatures are controlled, and each SRV is enclosed in a separate sturdy metal box.

As part of a review of the CPS IST program with respect to a recent ASME OM Code interpretation, AmerGen identified a discrepancy relative to the 5-year test interval. The ASME OM Code interpretation (i.e., ASME Code Interpretation 01-18 from the ASME OM Code, 2004 Edition) indicated that implementation of the 5-year test interval should be based upon a "test-to-test" duration. The historical method used at CPS Unit 1 with respect to SRV test intervals has been to use an "installation-to-test" duration, and to ensure that all installed SRVs would not exceed a 5-year testing frequency.

During the upcoming CPS Unit 1 refueling outage (i.e., C1R11), which is scheduled to begin in January 2008, AmerGen will replace and test eight SRVs (i.e., 50% of the total number of valves). The six affected SRVs that are listed in Table 1 are currently scheduled to be replaced during C1R11. This replacement and test schedule is consistent with the historical AmerGen method for implementing OM-1, Section I-1330(a) (i.e., the valves will have been installed for less than or equal to two operating cycles). However, utilizing a test-to-test interpretation, the 5-year interval for the six affected SRVs have expired, or will expire prior to C1R11, as indicated in Table 1.

5. Proposed Alternative and Basis for Use

For the second ten-year IST interval at CPS Unit 1, AmerGen proposes to remove and test the six affected SRVs during C1R11, along with two other SRVs that will expire during C1R11.

IST history for SRVs at CPS from 2001 to the present indicates that all but three of 32 total tests of SRVs that have been installed for two operating cycles (i.e., 48 months) have successfully passed the ASME OM Code as-found acceptance criteria of plus or minus 3%. Historical test data indicates that 21 of the 32 tests remained within the as-left tolerance of plus or minus 1%. In addition, the as-found test data for the three SRV failures indicates that two of the three SRV test failures did not significantly decrease the level of quality or safety, in that the as-found setpoint for one SRV was within 0.004% of the acceptance criteria, and one SRV exceeded the acceptance criteria in a negative, or conservative direction.

The AmerGen data analysis also indicates that the CPS test data is consistent with reliable and consistent performance of the Dikkers Model G-471 SRVs seen at other nuclear stations, including Grand Gulf Nuclear Station (GGNS) and Perry Nuclear Power Plant (PNPP). GGNS personnel have stated that, since 2001, all but one of 36 SRVs have successfully passed the ASME OM Code as-found acceptance criteria of plus or minus 3%. PNPP personnel indicated that station experience with Dikkers Model G-471 SRVs has been reliable and consistent, and recalled no failures in recent years.

AmerGen has also reviewed vendor recommendations for valve storage. This review indicated the SRVs are required to be stored in a controlled environment, inside specially

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designed metal storage containers prior to be installation as replacement SRVs. The controlled environment in which these SRVs are stored is not subject to thermal cycling or vibration (i.e., the normal operating conditions to which SRVs are subjected). Table 1 provides both the storage time (i.e., the time period from the as-left test to the installation date) and the installed time for the six affected SRVs at the start of C1R11.

Finally, AmerGen has reviewed the historical SRV vendor technical information program manual (i.e., Dijkers), to identify any operating and/or maintenance experience with Model G-471 valves that could provide additional insights regarding the impact of controlled environment storage upon SRVs. The vendor manual indicated that, in general, there is no degradation in the valve when stored in a controlled environment for a period of up to five years before actual installation.

In addition to historical test results, the current CPS Unit 1 reload ASME overpressure analysis assumes that two SRVs are out of service, and all of the operable SRVs open to relieve pressure at the upper ASME Code limit of 1375 psig. This value is greater than the plus 3% of the SRV setpoint. These conservative assumptions provide additional assurance that the requested relief from the ASME OM Code requirement for the subject SRVs would not result in a decrease in the level of quality or safety.

6. Duration of Proposed Alternative

This proposed alternative is requested until the start of C1R11, which is scheduled to commence in January 2008. Table 1 provides the requested test interval extension for each of the six SRVs.

7. Precedents

In Reference 1, the NRC reviewed and approved a relief request for Susquehanna Steam Electric Station, Units 1 and 2 to extend the SRV test interval duration for individual valves to six years for the entire third 10-year Inservice Testing interval. In Reference 2, the NRC reviewed and approved a relief request for Nine Mile Point, Unit 2 to extend the SRV test interval duration for individual valves to three refueling outages or approximately six years for the entire third 10-year Inservice Testing interval. In both approvals, the NRC allowed for a total installed interval of at least six years in contrast to this one time request to extend the test interval for six SRVs by a maximum of nine months.

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8. References

- 1) Letter from R. J. Laufer (USNRC) to B. L. Shriver (SSES), "Susquehanna Steam Electric Station Units 1 and 2 - Third 10-Year Interval Inservice Testing (IST) Program Plans," dated March 10, 2005
- 2) Letter from M. Banerjee (USNRC) to J.H. Mueller (NMPC), " Nine Mile Point Nuclear Power Station, Unit No. 2 – Alternative to American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Regarding Inservice Testing of Safety Relief/Relief Valves (TAC No. MB0290)," dated April 17, 2001

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**Table 1
CPS Unit 1 SRV Data**

Valve Location	Valve Serial Number	Last Test Date	Installation Date	Storage Duration	Scheduled Replacement Outage	Scheduled Replacement Date	Installed Time at Replacement	Requested Interval Extension
1B21-F041B	160536	6/17/2002	02/13/2006	44 months	C1R11	01/2008	2 years	7 months
1B21-F047F	160778	5/7/2002	02/11/2006	45 months	C1R11	01/2008	2 years	8 months
1B21-F051B	160783	4/16/2002	02/18/2004	22 months	C1R11	01/2008	4 years	9 months
1B21-F051G	160949	4/23/2002	02/18/2004	22 months	C1R11	01/2008	4 years	9 months
1B21-F041C	160943	9/13/2002	02/15/2004	17 months	C1R11	01/2008	4 years	4 months
1B21-F051C	160917	9/22/2002	02/13/2006	41 months	C1R11	01/2008	2 years	4 months

Attachment 2

Relief Request 2209

**Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(ii)
Hardship or Unusual Difficulty without Compensating
Increase in Level of Quality or Safety**

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Increase in Level of Quality or Safety

1. ASME Code Component(s) Affected

Clinton Power Station (CPS) Unit 1, Safety Relief Valves (SRVs):
Model: G-471; Manufacturer: Dikkers Valves.

Table 1 provides valve-specific identification data, test dates, installation dates, and requested extension duration for the eight valves.

2. Applicable Code Edition and Addenda

American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," ASME/ANSI OMa-1988, "Operations and Maintenance of Nuclear Power Plants," 1987 Edition through 1988 Addenda (ASME OM Code).

3. Applicable Code Requirement

ASME OM Code, Part 1, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants," Section 1.3.3, "Test Frequencies, Class 1 Pressure Relief Valves," paragraph (a), "5-Year Test Interval."

This section states that all valves of each type and manufacturer shall be tested within each subsequent 5-year period with a minimum of 20% of the valves tested within any 24 months. This 20% shall be previously untested valves, if they exist.

4. Reason for Request

10 CFR 50.55a(f)(4) directs a licensee to meet inservice testing requirements for ASME Code Class 1 valves set forth in the ASME OM Code and addenda. CPS is committed to the 1987 Edition through 1988 addenda of the ASME OM Code; and specifically, the 1987 Edition of the OM Code, Part 1 (OM-1), "Requirements for Inservice Performance Testing of Nuclear Power Plant Pressure Relief Devices."

The ASME OM Code, Part 10 (OM-10), Section 3.2, "Inservice Testing," states that inservice testing shall commence when the valves are required to be operable to fulfill their required function(s). OM-1, Section 4.3.1, "Safety and Relief Valves," directs that safety and relief valves meet the inservice testing requirements set forth in Part 1 of the ASME OM Code. Section 1.3.3.1 of the ASME OM Code states that Class 1 pressure relief valves shall be tested within the initial 5-year period, starting with initial electric power generation. This section also states that all valves of each type and manufacture shall be tested within each subsequent 5-year period. The required test ensures that the SRVs, which are located on each of the main steam lines between the reactor vessel and the first isolation valve within the drywell, will open at the pressures bounded by the safety analysis.

In accordance with 10 CFR 50.55a, "Codes and Standards," paragraph (a)(3)(ii), AmerGen Energy Company, LLC (AmerGen) requests relief from the requirements of ASME OM Code, Part 1, Section 1.3.3.1, for eight SRVs at CPS Unit 1 until the twelfth refueling outage

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(i.e., C1R12), which is scheduled to begin in January 2010. Compliance with the applicable requirements of the ASME OM Code for the eight SRVs would result in hardship due to unnecessary personnel radiation exposure, without a compensating increase in the level of quality or safety.

AmerGen currently replaces eight of 16 SRVs at CPS Unit 1 every refueling outage, so that all valves are removed and tested every two refueling outages. This methodology supports the ASME OM Code requirements for testing previously untested Class 1 pressure relief valves. After each valve is removed and as-found tested, the SRVs are refurbished to a like-new condition, and reset to an as-left value of plus or minus 1%.

AmerGen utilizes an ASME OM Code-certified off-site vendor to perform as-found and as-left testing, inspection, and refurbishment of the CPS Unit 1 SRVs. An AmerGen-approved and qualified procedure is used for disassembly and inspection of SRVs. This procedure requires that each SRV be disassembled and inspected upon removal from service, independent of the as-found test results. The procedure identifies the critical components that are required to be inspected for wear and defects, and the critical dimensions that are required to be measured during the inspection. If components are found worn or outside of the specified tolerance(s), the components are either reworked to within the specified tolerances, or replaced. Parts that are defective, outside-of-tolerance, and any reworked/replaced components are identified, and AmerGen is notified of these components by the off-site vendor. The SRV is then re-assembled, an as-left test is performed, and the SRV is returned to CPS.

An AmerGen qualified procedure is used at CPS Unit 1 for packaging, handling and storage of safety related equipment. Since the SRVs are safety related, the procedure requires storage within fire resistant, tear-resistant, weather-tight packaging, as well as inside a building or enclosure. The procedure also states that storage area or enclosure shall not be subject to flooding; the floor shall be paved or equal and well drained. The storage area must be provided with uniform heating and temperature control to prevent condensation and corrosion. Minimum and maximum temperatures are controlled, and each SRV is enclosed in a separate sturdy metal box.

As part of a review of the CPS Unit 1 inservice testing program with respect to a recent ASME OM Code interpretation, AmerGen identified a discrepancy relative to the 5-year test interval. The ASME OM Code interpretation (i.e., ASME Code Interpretation 01-18 from the ASME OM Code, 2004 Edition) indicated that implementation of the 5-year test interval should be based upon a "test-to-test" duration. The historical method used at CPS Unit 1 with respect to SRV testing has been to use an "installation-to-test" duration, and to ensure that all installed SRVs would not exceed a 5-year testing frequency.

During the upcoming CPS Unit 1 refueling outage (i.e., C1R11), which is scheduled to begin in January 2008, AmerGen will replace and test eight SRVs. At start-up from C1R11, the remaining eight SRVs will still be within the 5-year test-to-test interval. As such, these valves are scheduled for replacement during C1R12. Utilizing a test-to-test interpretation, the 5-year interval for the eight affected SRVs will have expired prior to the start of C1R12, as shown in Table 1. Five of these SRVs were originally scheduled for replacement during

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C1R11, and as such would have been replaced within the 5-year test-to-test interval. However, the replacement of these five valves was rescheduled to C1R12 to expedite the replacement of valves with an older test date to the earlier C1R11.

In order to comply with OM-1, Section 1.3.3, utilizing the test-to-test duration interpretation, these eight SRVs would have to be removed and tested during C1R11, in addition to removal and testing of the other eight SRVs. Without relief, the additional outage work due to the inclusion of the eight additional SRVs would be contrary to the principles of as low as reasonably achievable (ALARA), in that the removal and replacement of the eight SRVs will result in an estimated additional six person-rem of cumulative radiation exposure. This additional cumulative radiation exposure represents a hardship for CPS Unit 1, without a compensating increase in the level of quality or safety, as discussed below.

5. Proposed Alternative and Basis for Use

For the second ten-year inservice testing interval at CPS Unit 1, AmerGen proposes to remove and test the eight affected SRVs during C1R12.

All SRVs are in the upper elevations of the drywell. The major contributors to radiation exposure are the Main Steam Lines, including the SRVs, along with High Pressure Core Spray and Low Pressure Core Spray lines passing through the area.

Removal of an installed SRV and installation of a replacement SRV requires removal of insulation and appurtenances on the SRV and unbolting the SRV. Once unbolted, the SRV is maneuvered from its location and lowered to the first elevation and transported through the drywell equipment hatch. Due to the size of the valves, a crew of five to seven personnel is necessary to safely move each valve.

AmerGen has evaluated the historical cumulative radiation exposure at CPS for removal and replacement of SRVs from the last four CPS refueling outages. The work evolutions necessary to remove and replace these valves each refueling outage, which includes the removal and replacement of the eight SRVs, are conducted under equivalent radiological conditions and with the same personnel requirements. This historical cumulative radiation exposure data is provided in Table 2.

Based upon this data, AmerGen has concluded that the expected cumulative radiation exposure to remove and replace a single SRV would be approximately 0.7 person-rem. Therefore, the increase in work scope for C1R11 associated with removal and replacement of eight additional SRVs would result in approximately six additional person-rem during C1R11, without a compensating increase in the level of quality or safety.

IST history for SRVs at CPS from 2001 to the present indicates that all but three of 32 total tests of SRVs that have been installed for two operating cycles (i.e., 48 months) have successfully passed the ASME OM Code as-found acceptance criteria of plus or minus 3%. Historical test data indicates that 21 of the 32 tests remained within the as-left tolerance of plus or minus 1%. In addition, the as-found test data for the three SRV failures indicates that two of the three SRV test failures did not decrease the level of quality or safety, in that

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the as-found setpoint for one SRV was within 0.004% of the acceptance criteria, and one SRV exceeded the acceptance criteria in a negative, or conservative direction.

The AmerGen data analysis also indicates that the CPS test data is consistent with reliable and consistent performance of the Dikkers Model G-471 SRVs seen at other nuclear stations, including Grand Gulf Nuclear Station (GGNS) and Perry Nuclear Power Plant (PNPP). GGNS personnel have stated that, since 2001, all but one of 36 SRVs have successfully passed the ASME OM Code as-found acceptance criteria of plus or minus 3%. PNPP personnel indicated that station experience with Dikkers Model G-471 SRVs has been reliable and consistent, and recalled no failures in recent years.

AmerGen has reviewed vendor recommendations for valve storage. This review indicated the SRVs are required to be stored in a controlled environment, inside specially designed metal storage containers prior to be installation as replacement SRVs. The controlled environment in which these SRVs are stored is not subject to thermal cycling or vibration (i.e., the normal operating conditions to which SRVs are subjected). Table 1 provides both the storage time (i.e., the time period from the as-left test to the installation date) and the installed time for the six affected SRVs at the start of C1R11.

Finally, AmerGen has reviewed the historical SRV vendor technical information program manual (i.e., Dikkers), to identify any operating and/or maintenance experience with Model G-471 valves that could provide additional insights regarding the impact of controlled environment storage upon SRVs. The vendor manual indicated that, in general, there is no degradation in the valve when stored in a controlled environment for a period of up to five years before actual installation.

In addition to historical test results, the current CPS Unit 1 reload ASME overpressure analysis assumes that two SRVs are out of service, and all of the operable SRVs open to relieve pressure at the upper ASME Code limit of 1375 psig. This value is greater than the plus 3% of the SRV setpoint. These conservative assumptions provide additional assurance that the requested relief from the ASME OM Code requirement for the subject SRVs would not result in a decrease in the level of quality or safety.

6. Duration of Proposed Alternative

This proposed alternative is requested until the start of C1R12, which is scheduled to commence in January 2010. Table 1 provides the requested test interval extension for each of the eight SRVs.

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7. Precedents

In Reference 1, the NRC reviewed and approved a relief request for Susquehanna Steam Electric Station, Units 1 and 2 to extend the SRV test interval duration for individual valves to six years for the entire third 10-year Inservice Testing interval. In Reference 2, the NRC reviewed and approved a relief request for Nine Mile Point, Unit 2 to extend the SRV test interval duration for individual valves to three refueling outages or approximately six years for the entire third 10-year Inservice Testing interval. In both approvals, the NRC allowed for a total installed interval of at least six years.

8. References

- 1) Letter from R. J. Laufer (USNRC) to B. L. Shriver (SSES), "Susquehanna Steam Electric Station Units 1 and 2 - Third 10-Year Interval Inservice Testing (IST) Program Plans," dated March 10, 2005
- 2) Letter from M. Banerjee (USNRC) to J.H. Mueller (NMPC), "Nine Mile Point Nuclear Power Station, Unit No. 2 – Alternative to American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Regarding Inservice Testing of Safety Relief/Relief Valves (TAC No. MB0290)," dated April 17, 2001

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**Table 1
CPS Unit 1 SRV Data**

Valve Location	Valve Serial Number	Last Test Date	Installation Date	Storage Duration	Scheduled Replacement Outage	Scheduled Replacement Date	Installed Time at Replacement	Requested Interval Extension
1B21-F041D	160540	11/13/2003	02/18/2004	3 months	C1R12	01/2010	6 years ¹	14 months
1B21-F041F	160537	04/21/2003	02/18/2004	10 months	C1R12	01/2010	6 years ¹	21 months
1B21-F041G	160941	11/24/2003	02/13/2006	27 months	C1R12	01/2010	4 years	14 months
1B21-F047A	160792	02/26/2003	02/18/2004	12 months	C1R12	01/2010	6 years ¹	23 months
1B21-F047B	160911	10/10/2003	02/18/2004	4 months	C1R12	01/2010	6 years ¹	15 months
1B21-F047C	160946	11/21/2003	02/18/2004	3 months	C1R12	01/2010	6 years ¹	14 months
1B21-F047D	160779	08/11/2003	02/13/2006	30 months	C1R12	01/2010	4 years	17 months
1B21-F051D	160793	04/3/2003	02/13/2006	34 months	C1R12	01/2010	4 years	21 months

¹ The original replacement schedule for this valve was C1R11 (i.e., a 4 year installed time at replacement), but was revised to C1R12 to expedite the replacement of a valve with an older test date to the earlier C1R11.

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Table 2
Cumulative Radiation Exposure

Outage	C1R10	C1R09	C1R08	RF-7
Number of SRVs Replaced	8	8	16	16
Cumulative Person-rem	5.325	12.139	8.837	8.062