



Alex L. Javorik
Columbia Generating Station
P.O. Box 968, Mail Drop PE23
Richland, WA 99352-0968
Ph. 509-377-2354 F. 509-377-8555
aljavorik@energy-northwest.com

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GO2-16-079

10 CFR 50.90

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

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397
ERRATUM FOR LICENSE AMENDMENT REQUEST TO MODIFY
TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENT (SR)
3.4.3.1 AND SR 3.4.4.1 SAFETY/RELIEF VALVES (SRVs) SETPOINT
LOWER TOLERANCE**

Reference: Letter, GO2-16-046, dated May 10, 2016, A. L. Javorik (Energy Northwest) to NRC, "License Amendment Request to Modify Technical Specification Surveillance Requirement (SR) 3.4.3.1 and SR 3.4.4.1 Safety/Relief Valves (SRVs) Setpoint Lower Tolerance"

Dear Sir or Madam:

Please replace Pages 7 and 8 of Attachment 1 of the referenced letter with the enclosed pages. Errors were found on page 8 of 17 in that the Relief Valve Setpoints in Table 2 erroneously included the pressure switch head correction. The values in the table were revised to reflect removal of the head correction. Also, the table was revised to provide the *minimum* margin between safety and relief modes of operation at the limiting tolerance values. As a result, the discussion on overlap with the safety function setpoints on page 7 of 17 was corrected.

The conclusions of the original Regulatory Evaluation and Environmental Consideration are unaffected by this correction.

Pursuant to 10 CFR 50.91, a copy of this erratum is being sent to the designated official of the State of Washington.

There are no new or revised commitments with this letter.

If you should have any questions regarding this submittal, please contact Ms. L. L. Williams, Licensing Supervisor, at 509-377-8148.

I declare under penalty of perjury that the foregoing is true and correct. Executed this
17th day of May, 2016.

Respectfully,



A. L. Javorik
Vice President, Engineering

Enclosure: As stated

cc: NRC Region IV Administrator
NRC NRR Project Manager
NRC Sr. Resident Inspector - 988C
CD Sonoda – BPA 1399 (email)
WA Horin – Winston & Strawn (email)
RR Cowley – WDOH (email)
EFSECutc.wa.gov – EFSEC (email)

GO2-16-079
Enclosure

License Amendment Request
To
Modify Technical Specification Surveillance Requirement (SR) 3.4.3.1 and SR 3.4.4.1
Safety/Relief Valves (SRVs) Setpoint Lower Tolerance
Replacement Pages

Table 1							
SRV Equipment No.	Year/Outage	Test Type	SRV S/N	Set Pressure	Tolerance	As-found	Deviation
4C	2013, R21	C	55	1195	+/- 3%	1257	5.19%
4D	2013, R21	C	62	1205	+/- 3%	1162	-3.57%
5B	2013, R21	CA	61	1205	+/- 3%	1208	0.25%
5C	2013, R21	C	59	1205	+/- 3%	1173	-2.66%
1A	2015, R22	CA	48	1175	+/- 3%	1122	-4.51%
1B	2015, R22	C	45	1165	+/- 3%	1138	-2.32%
1C	2015, R22	CA	139	1165	+/- 3%	1146	-1.63%
1D	2015, R22	CA	49	1175	+/- 3%	1209	2.89%
2A	2015, R22	CA	122	1185	+/- 3%	1185	0.00%
2B	2015, R22	C	134	1175	+/- 3%	1170	-0.43%
2C	2015, R22	CA	50	1175	+/- 3%	1134	-3.49%
2D	2015, R22	C	52	1185	+/- 3%	1133	-4.39%
3A	2015, R22	C	57	1195	+/- 3%	1157	-3.18%
3B	2015, R22	C	138	1185	+/- 3%	1180	-0.42%
3C	2015, R22	CA	54	1185	+/- 3%	1180	-0.42%
3D	2015, R22	C	137	1195	+/- 3%	1208	1.09%
4A	2015, R22	C	135	1205	+/- 3%	1200	-0.41%
4B	2015, R22	C	126	1195	+/- 3%	1186	-0.75%
4C	2015, R22	CA	56	1195	+/- 3%	1277	6.86%
4D	2015, R22	CA	62	1205	+/- 3%	1173	-2.66%
5B	2015, R22	C	61	1205	+/- 3%	1226	1.74%
5C	2015, R22	CA	136	1205	+/- 3%	1214	0.75%
Table Key: S/N= Serial Number <u>Test Type:</u> C- Test for ASME Code and TS Compliance CA- Additional SRVs tested due to ASME Code Test failure							

4.4 Operating Margin

The purpose of the lower setpoint tolerance is to ensure sufficient margin exists between the normal operating pressure of the system and the point at which the SRVs actuate in the safety mode. The normal operating pressure of the RPV at power is 1020 psig. Table 2 provides a comparison of the SRV safety setpoints with the relief setpoints and provides the simmer margin between the proposed -5% safety setpoint tolerance and the normal operating pressure. The table shows there is adequate margin between the normal operating pressure and the -5% safety setpoint tolerance. The lowest margin occurs with the lowest SRV setpoint valves with a simmer margin of 86.75 psig.

The table also shows a comparison with the relief mode setpoints along with their established tolerance band of ± 5 psig. The table shows there is no overlap with the relief setpoints for the proposed safety setpoint lower tolerance of -5%. Additionally, the as-left tolerance of SRVs remains at $\pm 3\%$. SRVs which are removed for maintenance are returned to a tolerance of $\pm 1\%$ prior to being installed for service, thereby returning the margin to original levels. Therefore, the margin is considered adequate and will not impact normal plant operation.

Additionally, for the Columbia analyses discussed in section 4.5, there is no specific margin required between event peak pressure and opening safety setpoints for the SRVs or a restriction in the overlap between the range of acceptable SRV safety setpoints for the SRVs and the relief mode opening setpoints.

SRV Equip No.	TS Safety Setpoint	TS Safety -3%	TS Safety -5%	Pressure Switch Equip. No.	Relief Setpoint	Relief +5 psig	Relief +5 psig vs Safety -3%	Relief +5 psig vs Safety -5%	Simmer Margin for -5%
1A	1175	1139.8	1116.25	39J	1101	1106	33.8	10.25	96.25
1B	1165	1130.1	1106.75	39E	1091	1096	34.1	10.75	86.75
1C	1165	1130.1	1106.75	39L	1091	1096	34.1	10.75	86.75
1D	1175	1139.8	1116.25	39K	1101	1106	33.8	10.25	96.25
2A	1185	1149.5	1125.75	39A	1111	1116	33.5	9.75	105.75
2B	1175	1139.8	1116.25	39F	1101	1106	33.8	10.25	96.25
2C	1175	1139.8	1116.25	39D	1101	1106	33.8	10.25	96.25
2D	1185	1149.5	1125.75	39C	1111	1116	33.5	9.75	105.75
3A	1195	1159.2	1135.25	39B	1121	1126	33.2	9.25	115.25
3B	1185	1149.5	1125.75	39H	1111	1116	33.5	9.75	105.75
3C	1185	1149.5	1125.75	39G	1111	1116	33.5	9.75	105.75
3D	1195	1159.2	1135.25	39V	1121	1126	33.2	9.25	115.25
4A	1205	1168.9	1144.75	39S	1131	1136	32.9	8.75	124.75
4B	1195	1159.2	1135.25	39R	1121	1126	33.2	9.25	115.25
4C	1195	1159.2	1135.25	39M	1121	1126	33.2	9.25	115.25
4D	1205	1168.9	1144.75	39P	1131	1136	32.9	8.75	124.75
5B	1205	1168.9	1144.75	39U	1131	1136	32.9	8.75	124.75
5C	1205	1168.9	1144.75	39N	1131	1136	32.9	8.75	124.75

4.5 Evaluation

The proposed safety setpoint lower tolerance change from -3% to -5% was qualitatively evaluated for Columbia by GE Hitachi Nuclear Energy (GEH) in Reference 7 as a supplement to GE-NE-187-24-0992, Revision 2. The results of this evaluation are presented below.

4.5.1 Vessel overpressure protection, anticipated operational occurrence (AOO) thermal limits and anticipate transient without scram (ATWS):

The effects of the proposed change on ATWS and other pressurization events are evaluated below.

The AOO thermal limits evaluation examined the Columbia Cycle 23 analysis. For the events that establish the operating limit minimum critical power ratio (OLMCPR) and the