May 1, 2007 GO2-07-079

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

COLUMBIA GENERATING STATION, DOCKET NO. 50-397 Subject: **RESPONSE TO GENERIC LETTER 2007-01, "INACCESSIBLE OR** UNDERGROUND POWER CABLE FAILURES THAT DISABLE ACCIDENT MITIGATION SYSTEMS OR CAUSE PLANT TRANSIENTS"

Dear Sir or Madam:

On February 7, 2007, the NRC issued Generic Letter (GL) 2007-01 to request that licensees submit information related to inaccessible or underground cabling. Provided in the attachment to this letter is Energy Northwest's response.

Energy Northwest makes no new commitments by this letter. If you have any questions or require additional information, please contact Mr. GV Cullen at (509) 377-6105. 

I declare under penalty of perjury that the foregoing is true and correct. Executed on the date of this letter.

Respectfully, WS Oxenford

Vice President, Technical Services Mail Drop PE04

Attachment: Generic Letter 2007-01 Requested Information

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# RESPONSE TO GENERIC LETTER 2007-01, "INACCESSIBLE OR UNDERGROUND POWER CABLE FAILURES THAT DISABLE ACCIDENT MITIGATION SYSTEMS OR CAUSE PLANT TRANSIENTS"

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### Generic Letter 2007-01 Requested Information

#### NRC Request #1

Provide a history of inaccessible or underground power cable failures for all cables that are within the scope of 10 CFR 50.65 (the Maintenance Rule) and for all voltage levels. Indicate the type, manufacturer, date of failure, type of service, voltage class, years of service, and the root causes for the failure.

#### **Energy Northwest Response**

The following is a history of inaccessible or underground power cable failures at Columbia Generating Station (CGS) that are scoped within the Maintenance Rule and where voltages are greater than or equal to 480V:

	Circulating Water Cooling Fan 33 Motor Power Cable	Circulating Water Cooling Fan 32 Motor Power Cable	Circulating Water Pump 1C Motor Power Cable*
Туре	Flamtrol <sup>TM</sup> insulation over tin- coated copper stranding, not shielded	Flamtrol <sup>™</sup> insulation over tin- coated copper stranding, not shielded	Semi-con <sup>R</sup> insulation over copper conductors, Shield is tin plated wound copper tape, Jacket material is Okoguard <sup>R</sup> shielded Okolon <sup>R</sup>
Manufacturer	Raychem	Raychem	Okonite
Date of Failure	February 20, 2005	February 17, 2005	**Sept-Oct 1986
Type of	normally energized	normally energized	normally energized
Service	(Cable #AM5M-0050 to CW-FN-33)	(Cable #AM5M-0040 to CW-FN-32)	(Cable #ASM3-0070 to CW-P-1C)
Voltage Class	Nominal Service Voltage – 480 VAC	Nominal Service Voltage – 480 VAC	Nominal Service Voltage – 4160 VAC
	Cable Rating – 600V	Cable Rating – 600V	Cable Rating – 5000V
Years of Service	approx 22 years	approx 22 years	approx 3 years
Failure Root Cause	In service failure, cause undetermined – most likely due to cable damage during installation and water intrusion (PER 205-0110)	In service failure, cause undetermined – most likely due to cable damage during installation and water intrusion (PER 205-0103)	In service failure, ampacity overheating effects (TER 02-86-0569-0)

\* Review of power cables to Circulating Water pumps 1A and 1B following failure of 1C also indicated some overheating so they were changed out at the same time with higher ampacity rated cable.

\*\* The existing records do not provide a date of failure but indicate a general timeframe that the failure occurred.

#### NRC Request #2

Describe inspection, testing and monitoring programs to detect the degradation of inaccessible or underground power cables that support EDGs, offsite power, ESW, service water, component cooling water and other systems that are within the scope of 10 CFR 50.65 (the Maintenance Rule).

## RESPONSE TO GENERIC LETTER 2007-01, "INACCESSIBLE OR UNDERGROUND POWER CABLE FAILURES THAT DISABLE ACCIDENT MITIGATION SYSTEMS OR CAUSE PLANT TRANSIENTS"

Attachment Page 2 of 2

#### **Energy Northwest Response**

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There is no formal program at CGS for inspection, testing, or monitoring of inaccessible or underground cabling to detect degradation. Periodic testing may occur to perform meggering of certain components, but it is not part of a formal program.