



ENERGY NORTHWEST

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RULES, ANNOUNCEMENTS, AND DIRECTIVES

Cindy Bladey, Chief
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Office of Administration
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U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397
ENERGY NORTHWEST COMMENTS ON DRAFT SUPPLEMENT 47
TO NUREG-1437**

Reference: Federal Register, Vol. 76, Pg. 54502, September 1, 2011

Dear Sir or Madam:

In response to the referenced Notice of Availability, Energy Northwest has reviewed the Nuclear Regulatory Commission's draft supplement to NUREG-1437 that addresses the site-specific environmental impacts associated with the possible renewal of the Columbia Generating Station operating license. This review did not disclose any substantial errors or omissions in the draft supplement. Our enclosed comments are largely editorial in nature. This letter and its enclosure contain no regulatory commitments.

Thank you for the opportunity to review the draft document. If you have any questions or require additional information, please contact John Twomey at (509) 377-4678.

Respectfully,

AL Javorik
AL Javorik
Vice President, Engineering

E-RIDS = ADM-03

Call = D. Doyle (dit)
S. Freeman (SZP)

SUNSI Review Complete
Template = ADM-03

**ENERGY NORTHWEST COMMENTS ON DRAFT SUPPLEMENT 47
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Attachment: Energy Northwest comments on draft Supplement 47 to NUREG-1437

cc: NRC Region IV Administrator
NRC NRR Project Manager
NRC Senior Resident Inspector/988C
EFSEC Manager
RN Sherman - BPA/1399
WA Horin - Winston & Strawn
D Doyle - NRC NRR (w/a)
MA Galloway – NRC NRR
RR Cowley - WDOH

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Page	Line No.	Comment
2-1	16	The Energy Northwest membership now consists of 28 public utilities. Pend Oreille Public Utility District joined in January 2010 after the license renewal application (LRA) was submitted.
2-1	19	Here, and at perhaps 15 other locations in Chapter 2, EN 2010b is cited as a reference. This should be EN 2010 since Chapter 2 lists only a single 2010 reference from Energy Northwest (see Page 2-74).
2-10	5	The last paragraph of Section 2.1.3.2 summarizes the benefits of an environmental management system (EMS). It would be relevant to note in this section that Energy Northwest has an EMS (see SEIS Chap. 2 reference EN 2010, Sec. 5.1).
2-11 D-1-7	12 10	The description of the circulating water cooling system as a "single-cycle, forced-circulation" system is confusing and appears to have been taken from the description of the nuclear steam supply system (NSSS) on SEIS Page 2-1, Line 29. The text could be changed to read: "The CGS circulating water system is a closed-cycle cooling system that removes heat from the condenser and...towers (EN, 2010)."
2-15 D-1-11	2-4 8-10	It appears that the description of the water treatment additives for control of biofouling and corrosion in the circulating water system may have been taken from the Operating License EIS (NUREG-0812). The water treatment program has changed since issuance of the OL. Currently, the biocides are sodium hypochlorite and sodium bromide. Corrosion is controlled with orthophosphates (for mild steel) and a halogen resistant azole (for copper alloys). Sulfuric acid is added for pH control and a polyacrylate dispersant is added to inhibit scale deposition.
2-17	24	The sentence starting on Line 24 should be changed to read: "The <u>cooling tower makeup water</u> system or the potable water system can supply...." (See SEIS Chapter 2 ref. EN 2005, Sec. 9.2.7.2.)

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Page	Line No.	Comment
2-17	33, 34	The last sentence should be changed to read: "Chemicals are added...to control biological growth (e.g., <u>hydrogen peroxide</u>) and to minimize corrosion (e.g., <u>sodium metasilicate</u>)." The specific chemical treatments for the standby service water system have not previously been described in the Environmental Report (ER) or responses to requests for additional information.
2-23	14	The sentence would read better if "constructions project" were changed to "construction projects."
2-27	9	Reference EN 2005a should be EN 2005.
2-33	13	The reference to Table 2.2-3 should be to Table 2.2-4.
2-37	20	The reference to Table 2.2-4 should be to Table 2.2-3.
2-40	19	Reference EN 2003b is cited as the source for information about the percentage of vascular plants on the Hanford Site that are non-native. This information is not contained in the referenced document. Duncan et al., 2007 (Page 4.87) appears to be a more appropriate source.
2-42	6-12	EN 2009 is cited as a source for information about birds sighted around the CGS site. This report on the results of the 2008 radiological environmental monitoring program does not contain information about bird sightings. Furthermore, the ten frequently sighted birds listed in this sentence were for observations of 25 species made in 1987, not for the 72 species observed from 1981 through 1987 (SEIS references WPPSS 1988 and EN 2010). Recommend deleting reference to EN 2009.
2-42	26	The statement that any bird injuries or deaths are reported to the USFWS or WDFW is incorrect. We suggest that the sentence be changed to read: " <u>Depending on the species involved</u> , bird injuries and deaths are also reported...." (See SEIS Chapter 2 ref. Gambhir 2010b.)

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Page	Line No.	Comment
2-42	37, 39	CGS procedures provide that environmental evaluations can be documented on other than forms, including memos and reports. Accordingly, we suggest that Line 37 be revised to read: "...checklists and environmental evaluations. If the" Line 39 should read: "...also be completed. Environmental evaluations require...."
2-44	22, 36, 41	The references to EN 2009 and EN 2010b should be to EN 2010.
2-55	16-20	In the draft SEIS the CGS site is identified as being in a high population area based on the population proximity criterion. This categorization stems from using a total Tri-Cities area population greater than 200,000 to say that CGS is within 50 miles of a city larger than 100,000 persons. This approach seems a minor departure from the intent of NUREG-1437 (Vol. 2, Sec. C.1.4) wherein the proximity criterion is defined in terms of distance to "large cities" (i.e., cities larger than 100,000 residents). Thus, on Page A-76 of NUREG-1437 Vol. 2, Spokane, Washington is identified as the city nearest to CGS. Energy Northwest believes the site area is more appropriately placed in Category 1 for proximity rather than Category 3.
2-69 2-70	35 3, 4, 10, 44	The references to EN 2005b should be to EN 2005.
2-69	41	The elevation in the vicinity of the power block is approximately 441 ft (134 m), not 421 ft. (See SEIS Chapter 2 ref. EN 2010, Sec. 2.4.2.)
4-7	37, 38	It appears that this sentence should read: "The staff did not find ...during the review of the <u>ER (EN, 2010)</u> , the site visit, the...available information."

* In Sec. 4.9.2 it is revealed that the Tri-Cities Metropolitan Statistical Area (MSA) is used to represent the Tri-Cities area population. Although the combined population of Richland, Pasco, Kennewick, and West Richland is certainly well above 100,000, it seems inappropriate to refer to the Tri-Cities MSA because the MSA encompasses all of Benton and Franklin Counties, an area of almost 3,000 square miles. A similar situation exists for the Brunswick Steam Electric Plant located 15 miles from Wilmington, North Carolina. In assessing the proximity criterion, the NRC could have used the Wilmington MSA or could have summed the populations of Wilmington and the contiguous incorporated areas. Only the City of Wilmington population (then about 95,000) was used. See NUREG-1437, Supplement 25.

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Page	Line No.	Comment
4-10	21	The reference to EN 2010a should be to EN 2010. (It should be noted that Chapter 4 has references EN 2010, EN 2010a, EN 2010b, and EN 2010c. See Page 4-58. This may lead to misidentification of reference numbers in Chapter 4).
4-13	36	The reference to EN 2009X4 should be to EN 2009a.
4-23	19	The reference to EN 2010a should be to EN 2010.
4-23	20-24	As noted above, application of the proximity criterion as described in NUREG-1437 places CGS in Category 1 for proximity.
4-25	17-20	The summary statement about tax-related impacts is confusing since it says that tax payments would continue even if CGS does not produce electricity. This is incorrect because the public utility privilege tax paid annually by Energy Northwest is based on the net amount of electricity generated by CGS (see ER Page 2-59).
4-27	34, 35	The text is correct but could be made more specific by changing the sentence to read: "The procedure is...received <u>training on the NHPA Section 106 consultation process</u>" (See SEIS Chapter 4 ref. Gambhir, 2010a.)
4-28	8-10	Because Section 106 consultation is a very prescriptive process engaged in by the cultural resource program owner, the text appears to overstate the training that should be recommended for all staff engaged in earth disturbing activities. We suggest the following wording for sentence that starts on Line 6: "...and by providing <u>training for enhanced cultural awareness by staff engaged in planning and executing ground disturbing activities.</u> "

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Page	Line No.	Comment
4-28	10, 11	The text suggests that <u>any</u> revisions to the CGS Cultural Resources Protection Plan be developed in consultation with the NRC, the State Historic Preservation Officer (SHPO), and the tribes. Energy Northwest does not typically involve external organizations in the development or revision of procedures that govern internal processes. However, Energy Northwest does welcome external suggestions regarding potential enhancements to our programs. We suggest that the sentence that starts on Line 10 be revised to read: " <u>Substantial</u> revisions to the Cultural Resources Protection Plan should be <u>provided to the Washington SHPO.</u> "
4-34	1	"Hanford" is misspelled.
4-36	11	The reference to EN 2010a should be to EN 2010b.
4-38	30	For consistency with Sections 2.1.2.1 and 4.8.2, this line should say "...in <u>over</u> 10 years."
4-41	14, 15	The sentence about a 2008 tritium concentration of 17,400 pCi/L in groundwater seems misplaced. The discussion in Lines 5-27 is focused on the localized contaminant plume emanating from Burial Ground 618-11. The subject groundwater sample is reflective of the more extensive contaminant plume from the 200 Area discussed on Lines 1-3 on this page. Also, the reference to EN 2010a should be to EN 2010b.
4-47	36	The ER (SEIS Chapter 4 reference EN 2010) is listed as a source for an expected completion date of 2015 for the remediation of burial site 618-11. The ER at Page 2-101 gives the expected completion date as 2018. SEIS Chapter 4 reference EN 2010a identifies the completion milestone as September 2018.
5-14		In Table 5.3-3 the number in the third column of the S2P2 row should be changed from 2.3×10^{-7} to 1.8×10^{-7} . The number in the fifth column should be changed from 1.2×10^{-7} to 0. (See SEIS Chapter 5 ref. Gambhir 2011a.)

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Page	Line No.	Comment
8-25	41	In assessing aesthetic impacts, the text indicates that 290 turbines comprise the 175-MWe wind farm in the combination alternative. For consistency with the typical turbine size of 1.67 MWe on Line 25 of Page 8-31, the number of turbines for the wind component of the alternative would be closer to 105.
8-31	21, 22	The text says four wind power generation projects are proposed, constructed, or are operational with 50 miles of Hanford. If it is using the Hanford Site boundary as the reference, there are more than ten. The operating projects at Vansycle Ridge, Stateline, and Nine Canyon are closer to CGS than the Combine project listed on Line 22. The Bonneville Power Administration has a map of existing and proposed projects on its website at http://www.bpa.gov/corporate/WindPower/index.cfm .
9-1	20-26	Consistent with our suggested changes to text on Page 4-28, Lines 8-11, we suggest the recommended mitigation measures for cultural resource protection be revised to read: “Energy Northwest could reduce the risk...and by providing <u>training for enhanced cultural awareness by staff engaged in planning and executing ground-disturbing activities</u> . <u>Substantial</u> revisions to the Cultural Resources Protection Plan should be <u>provided to the Washington SHPO</u> .”
F-3	17	1.4×10^{-6} should be 1.4×10^{-5} (See SEIS Appendix F ref. Gambhir 2011.)
F-12		Probabilistic Safety Assessment (PSA) versions 6.21 and 7.12 should be 6.2 and 7.1, respectively.
F-17	6	The reference to Tables F-6 and F-7 should be to F-7 and F-8.
F-28	9, 10	7.5×10^{-5} should be 7.5×10^{-6} and 7.4×10^{-5} should be 7.4×10^{-6}