ID	smem	sid
2342	(RSL Comments: This material is extracted from Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A. Vol, 2A has a submittal letter dated September 19, 1977. We have copy number 82. The letter states that Amendment 23 is the response of WPPSS to a request to re-evaluate the 1872 earthquake. Vol. 2A includes the following: 2R-A "Report of the Review Panel on the December 14, 1872 earthquake" by Coombs, Milne, Nuttli, and Slemmons (excluding verbatim original accounts) 2R-B "A review of the North Cascade earthquake of 14 December 1872" by Woodward-Clyde 2R-C "Tectonic Evolution of the Pacific Northwest Precambrian to present, by Gregory A. Davis 2R-D "Geologic Studies in the 1872 earthquake Epicentra Region, by Shannon and Wilson 2R-E "Geophysical and Seismological Studies in the 1872 earthquake epicentral region", by Weston Geophysical TABLE 2R B-2 LIST OF NEWSPAPERS Contemporary Accounts Location Newspaper Date Baker, OR Bedrock Democrat December 18, 1872 Barkerville, BC Cariboo Sentinel December 21, 1872 January 4, 1873 January 11, 1873 January 18, 1873 January 25, 1873 March 1, 1873	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A.		Table 2R B-2	1977

ID	smem	sid
2343	(RSL Comments: This material is extracted from Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A. Vol, 2A has a submittal letter dated September 19, 1977. We have copy number 82. The letter states that Amendment 23 is the response of WPPSS to a request to re-evaluate the 1872 earthquake. Vol. 2A includes the following: 2R-A "Report of the Review Panel on the December 14, 1872 earthquake" by Coombs, Milne, Nuttli, and Slemmons (excluding verbatim original accounts) 2R-B "A review of the North Cascade earthquake of 14 December 1872" by Woodward-Clyde 2R-C "Tectonic Evolution of the Pacific Northwest Precambrian to present, by Gregory A. Davis 2R-D "Geologic Studies in the 1872 earthquake Epicentra Region, by Shannon and Wilson 2R-E "Geophysical and Seismological Studies in the 1872 earthquake epicentral region", by Weston Geophysical TABLE 2R B-4 (RSL 6/1995 - This table was not scanned because of its complex format. However, it presents Modified Mercalli Intensities for the 1872 North Cascade earthquake. MMI values from studies by WPPSS (1977), Weston Geophysical (1976), Coombs et al. (1976), Puget Sound Power and Light/Bechtel (1977), Puget Sound Power and Light/N. Scott (1977), and USGS(1977) are tabulated in alphabetical order by place-name. Figure 2R-B1, which follows the tabulation, is an "Isoseismal Map for the 1872 North Cascade earthquake" provided by Woodward-Clyde, the authors of this section)	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A.		Table 2R B-4	1977

ID	smem	sid
2344	(RSL Comments: This material is extracted from Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A. Vol, 2A has a submittal letter dated September 19, 1977. We have copy number 82. The letter states that Amendment 23 is the response of WPPSS to a request to re-evaluate the 1872 earthquake. Vol. 2A includes the following: 2R-A "Report of the Review Panel on the December 14, 1872 earthquake" by Coombs, Milne, Nuttli, and Slemmons (excluding verbatim original accounts) 2R-B "A review of the North Cascade earthquake of 14 December 1872" by Woodward-Clyde 2R-C "Tectonic Evolution of the Pacific Northwest Precambrian to present, by Gregory A. Davis 2R-D "Geologic Studies in the 1872 earthquake Epicentra Region, by Shannon and Wilson 2R-E "Geophysical and Seismological Studies in the 1872 earthquake epicentral region", by Weston Geophysical _____ TABLE 2R E-14a LISTING A LETTERS RELATING TO THE EARTHQUAKE OF DECEMBER 14, 1872 Baudre, Peverend F. M., O.M.I., "Letter to D'Herbormez dated December 28, 1872 from Okanagan Valley", Manu- script in possession of Archives Deschatelets, Ottawa, Canada. "OKANAGAN VALLEY, 28XBRE, 1872* "The earthquake which we have experienced has a great effect on our	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A.		Table 2R-E14A	1977

ID	smem	sid
2345	(RSL Comments: This material is extracted from Washington Public Power Supply System, Preliminary Safety Analysis Report,^M WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A. Vol, 2A has a submittal letter dated September 19, 1977. We have copy number 82. The letter states that Amendment 23 is the response of WPPSS to a request to re-evaluate the 1872 earthquake. Vol. 2A includes the following: 2R-A "Report of the Review Panel on the December 14, 1872 earthquake" by Coombs, Milne, Nuttli, and Slemmons (excluding verbatim original accounts)^ 2R-B "A review of the North Cascade earthquake of 14 December 1872" by Woodward-Clyde^M 2R-C "Tectonic Evolution of the Pacific Northwest Precambrian to present, by Gregory A. Davis^M 2R-D "Geologic Studies in the 1872 earthquake Epicentra Region, by Shannon and Wilson^M 2R-E "Geophysical and Seismological Studies in the 1872 earthquake epicentral region", by Weston Geophysical This record includes Tables 2R E-14b; LISTING B - ADDITIONAL DOCUMENTATION OF CATALOGED EVENTS and 2R E-16; CATALOGED EVENTS: ADDITIONAL DOCUMENTATION OBTAINED DURING THE INVESTIGATION) TABLE 2R E-16 CATALOGED EVENTS: ADDITIONAL DOCUMENTATION OBTAINED DURING THE INVESTIGATION May 10, 1883 INLAND SENTINEL, THE 05/24/1883 Jan 30, 1900 CHILLIWACK PROGRESS, THE 01/31/1900 Jan 11, 1909 CHILLIWACK PROGRESS, THE 01/19/1909 Aug 18, 1915 CHILLIWACK PROGRESS, THE 08/19/1915	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A.		Table 2R-E14B	1977

ID	smem	sid
2347	(RSL Comments: This material is extracted from Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A. Vol, 2A has a submittal letter dated September 19, 1977. We have copy number 82. The letter states that Amendment 23 is the response of WPPSS to a request to re-evaluate the 1872 earthquake. Vol. 2A includes the following: 2R-A "Report of the Review Panel on the December 14, 1872 earthquake" by Coombs, Milne, Nuttli, and Slemmons (excluding verbatim original accounts) 2R-B "A review of the North Cascade earthquake of 14 December 1872" by Woodward-Clyde 2R-C "Tectonic Evolution of the Pacific Northwest Precambrian to present, by Gregory A. Davis 2R-D "Geologic Studies in the 1872 earthquake Epicentra Region, by Shannon and Wilson 2R-E "Geophysical and Seismological Studies in the 1872 earthquake epicentral region", by Weston Geophysical This record contains Tables 2R-E18 and 2R-E14D, which go together _____ TABLE 2R E- 18 ADDITIONAL UNCATALOGED FINDINGS WASHINGTON, VANCOUVER ISLAND, EASTERN, NORTHERN BRITISH COLUMBIA February 28, 1864 February 18, 1872 April 4, 1877 September 19, 1877 September 23, 1891 December 6, 1891 December 23, 1898	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A.		Tables 2R-E18 and 2R-E14D	1977

ID	smem	sid
2348	(RSL Comments: This material is extracted from Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A. Vol, 2A has a submittal letter dated September 19, 1977. We have copy number 82. The letter states that Amendment 23 is the response of WPPSS to a request to re-evaluate the 1872 earthquake. Vol. 2A includes the following: 2R-A "Report of the Review Panel on the December 14, 1872 earthquake" by Coombs, Milne, Nuttli, and Slemmons (excluding verbatim original accounts) 2R-B "A review of the North Cascade earthquake of 14 December 1872" by Woodward-Clyde 2R-C "Tectonic Evolution of the Pacific Northwest Precambrian to present, by Gregory A. Davis 2R-D "Geologic Studies in the 1872 earthquake Epicentra Region, by Shannon and Wilson 2R-E "Geophysical and Seismological Studies in the 1872 earthquake epicentral region", by Weston Geophysical This record contains TABLE 2R E-1 and TABLE 2R E-1A _____ TABLE 2R E-1 (Sheet 1 of 13) CUMULATIVE TABLE OF PUBLISHED DATA Event No. Year Mo. Day Origin Time (GMT) Location Max. Int. (MM) Felt Area (mi) No. of Felt Reports Reference Mag. Local Code** Remarks 37 1905 Oct 19 06:00 Chelan v WGR 41 1907 Feb 17 20:20 Chelan v WGR 44 1909 Jan 21 13:00 Chelan iv	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A.		Table 2R-E1 and Table 2R-E1A	1977

ID	smem	sid
2350	(RSL Comments: This material is extracted from Washington Public Power Supply System, Preliminary Safety Analysis Report,^M WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A.^M Vol, 2A has a submittal letter dated September 19, 1977. We have copy number 82.^M The letter states that Amendment 23 is the response of WPPSS to a request to re-evaluate the 1872 earthquake.^M ^M Vol. 2A includes the following:^M 2R-A "Report of the Review Panel on the December 14, 1872 earthquake" by Coombs, Milne, Nuttli, and Slemmons (excluding verbatim origin al accounts)^M 2R-B "A review of the North Cascade earthquake of 14 December 1872" by Woodward-Clyde^M 2R-C "Tectonic Evolution of the Pacific Northwest Precambrian to present, by Gregory A. Davis^M 2R-D "Geologic Studies in the 1872 earthquake Epicentra Region, by Shannon and Wilson^M 2R-E "Geophysical and Seismological Studies in the 1872 earthquake epicentral region", by Weston Geophysical^M ^M This record contains Tables 2R-E17 and 2R-E14C, which go together _____ TABLE 2R E-17 UNCATALOGED FINDINGS: SOUTH-CENTRAL BRITISH COLUMBIA 1880 "...shook the country for miles around..." January 14, 1897 "...Houses were shaken, crockery rattled, and a heavy rumbling noise heard. The effects seem to have been local..."	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A.		Tables 2R-E17 and 2R-E14C	1977

ID	smem	sid
2351	(RSL Comments: This material is extracted from Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A. Vol, 2A has a submittal letter dated September 19, 1977. We have copy number 82. The letter states that Amendment 23 is the response of WPPSS to a request to re-evaluate the 1872 earthquake. Vol. 2A includes the following: 2R-A "Report of the Review Panel on the December 14, 1872 earthquake" by Coombs, Milne, Nuttli, and Slemmons (excluding verbatim original accounts) 2R-B "A review of the North Cascade earthquake of 14 December 1872" by Woodward-Clyde 2R-C "Tectonic Evolution of the Pacific Northwest Precambrian to present, by Gregory A. Davis 2R-D "Geologic Studies in the 1872 earthquake Epicentra Region, by Shannon and Wilson 2R-E "Geophysical and Seismological Studies in the 1872 earthquake epicentral region", by Weston Geophysical TABLE 2R E-9 EARTHQUAKES INVESTIGATED Epicentral Map Intensity No. Year Month Day Location (MM) 1873 Oct 18 Lake Chelan region, Wash. 1874 Jan 17 Yakima, Wash. 1875 May 6 Yakima, Wash. 1875 May 6 Yakima, wash. 19 1891 Sep 2 Ritlville, Wash. iv 1892 Feb 20 Chelan Falls, Wash. 23 1892 Mar 5 North Yakima, Wash. vi 1893 Jan 26? Methow Valley, Wash. 1893 Jul 7 Wenatchee, Wash. 1894 Apr 15 Ellensburg, Wash. iii 30 1897 Dec 15 Lakeside, Wash. v	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, Preliminary Safety Analysis Report, WPPSS Nuclear Project No. 1, 1300 MW Nuclear Power Plant, Vol. 2A.		Table 2R-E9	1977

ID	smem	sid
2352	(RSL comment: this material is extracted from the "Report of the Review Panel on the December 14, 1872 earthquake" Coombs, H.A., W.G. Milne, O.W. Nuttli, and D.B. Slemmons December 1976. Appendix B: Reports related to the December 14, 1872 earthquake; pages 19 -20) Chelan Leader September 14, 1899, p 2 Chelan, W. T. A Volcanic Upheaval The Leader is informed that about 2 o'clock p.m. last Sunday, up the lake about 19 miles at E. F. Christie's place, J. A. Graham saw out near the center of the lake a peculiar, upheaval of the gassy surface to the height, apparently, of about 6 or 10 feet. He afterwards watched the waves roll in towards shore. The water came in like a tidal wave, all of s'lx feet high, driving the little steamer Kitten, moored there, high upon the rocks, then receding, caused it to upset and sink. Succeeding waves continued for two hours before the lake finally quieted down. All observers agree that there was no wind blowing at the time. At Mountain Park, four miles this side, T. R. Gibson says the wave from the upheaval was only 20 minutes in reaching there. The steamer Dexter, which came down Tuesday and assisted in raising the Kitten, reports that the wave was very noticeable at Moore's Point and the head.	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Coombs, H.A., W.G. Milne, O.W. Nuttli, and D.B. Slemmons, "Report of the Review Panel on the December 14, 1872 earthquake",		Appendix B: Reports related to the December 14, 1872 earthquake, pp. 19-20	1976

ID	smem	sid
2353	(RSL comment: this material is extracted from the "Report of the Review Panel on the December 14, 1872 earthquake" Coombs, H.A., W.G. Milne, O.W. Nuttli, and D.B. Slemmons December 1976. Appendix D Selected Supporting Information) WESTERN VOLCANOES Chances That Western Washington May See Disastrous Eruptions. Mountain Peaks of the American Andes and Their Interesting History. Professor Plummer's Paper on "Recent Volcanic Activity" Read Before the Academy of Science. Tacoma Ledger-February 28, 1893 The announcement that Mr. Plummer would read a paper on "Recent Volcanic Activity in Washington," drew to the Annie Wright seminary a full attendance of the Academy of Science last night. Some brief routine business was quickly transacted, including the appointment of a committee to arrange with the Alpine club to form the fifth department of the academy, and another committee to consuls with the Commercial club and chamber of commerce regarding an extra edition of the pamphlet containing Judge Wickersham's recent paper on "Mount Tacoma." Messers. Taylor, Bingham and General Kautz are the first, and M. S. Hill, Judge Wickersham and G. W. Thompson composed the second committee. In this connection letters were received from Dr. Abbott of the museum of archaeology and palaeontology of the University of Philadelphia, and the Oneida Historical society of Utica, NY, expressing approbation and encouragement for the academy's efforts to secure general recognition of the rightful name of the mountain.	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Coombs, H.A., W.G. Milne, O.W. Nuttli, and D.B. Slemmons, "Report of the Review Panel on the December 14, 1872 earthquake",		Appendix D: Selected Supporting Information	1976

ID	smem	sid
2354	(RSL comment: this material is extracted from the "Report of the Review Panel on the December 14, 1872 earthquake" Coombs, H.A., W.G. Milne, O.W. Nuttli, and D.B. Slemmons December 1976. Appendix D Selected Supporting Information) TABLE 1 COMPILATION OF FELT REPORTS 14 COMPILATION OF FELT REPORTS: WASHINGTON Locality- Primary Data Source Date Intensity Remarks Colfax Oregonian 1/17/1873 No descriptive account for main shock of 14th. Colville Simms letter 12/31/1872 v - vi Spokesman Review 1/8/1906 Walia Walia Union 1212811872; 1/11, 3115, V+ 6/i4/1873 Puget Sound Daily Courier 1/2/1873	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Coombs, H.A., W.G. Milne, O.W. Nuttli, and D.B. Slemmons, "Report of the Review Panel on the December 14, 1872 earthquake",		Appendix D: Selected Supporting Information	1976

ID	smem	sid
2355	(RSL comment: this material is extracted from the "WPPSS Nuclear Project No. 2, Final Safety Analysis Report, Volume 1, Amendment 18" September 1981, Washington Public Power Supply System p. 2.5-120) The November 1, 1918 Corfu earthquake had an epicentral intensity of (MM) V-VI, based on intensity reports from the town of Corfu, Washington, and on reported landslides in the vicinity of Corfu. Based on the seismograph record at the Gonzaga University station (SPO) in Spokane, Washington, it is estimated that this earthquake had a magnitude (MS) of approximately 4.4. The Corfu earthquake and aftershock sequence was reported in the Bulletin of the Seismological Society of America (1918): The first shock was on November lst, between 9:15 and 9:30 a.m. This was the most severe and lasted several seconds; it shook goods from the shelves and caused landslides for several miles along the hills. We have had on an average about three shocks every twenty-four hours since, but lighter. The intensity is estimated at IV of the RF Scale. Bingham et al. (1970) refer to a landslide east of Sm-vrna Bench, which they attribute to the Corfu earthquake, but it was not investigated in detail in their field studies. Fifer (1966) gathered reports that suggests maximum intensity (MM) IV at White Bluffs which is located 26 km northwest of the present plant site and 16 km south of Corfu. The White Bluffs felt reports ind;Lcate that the epicenter was probably close to the town of Corfu. This further suggests that the site intensity was likely to be less than (MM) IV.	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, "WPPSS Nuclear Project No. 2, Final Safety Analysis Report, Volume 1, Amendment 18" September 1981		p. 2.5-120	1981

ID	smem	sid
2356	(RSL comment: this material is extracted from the "WPPSS Nuclear Project No. 2, Final Safety Analysis Report, Volume 1, Amendment 18", September 1981, Washington Public Power Supply System p. 2.5-123) The only other earthquake larger than intensity (MM) V within 80 km of the site was the March 5, 1893 shock that occurred near Umatilla, Oregon, about 62 km south of the site. Townley and Allen (1939) reported the earthquake as follows: 1893 March 6 (sic) umatilla. A succession of shocks were felt here to-night. One of the walls of a large stone building was thrown down by the force of the shock (VII? VIII?) . A VII? to VIII? Rossi-Forel (RF) intensity would correspond to a (MM) VII? intensity. The East Oregonian, (1893), Pendleton, newspaper of Monday, March 6, 1893, had the following headline and article: Earthquake at Umatilla - the little city in the sand badly shaken up. Umatilla, Oregon March 6 - At three minutes past 5 O'clock yesterday afternoon an earthquake shock lasting several seconds passed over this section of the country. One side of a large stone warehouse tumbled down, and the building was so badly cracked on all sides that it will have to be torn down. D. Harris, agent for the Union Pacific, who was possessing the building at the time, barely escaped being buried in the debris. This appears to have been an earthquake of very limited	WPPSS

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, "WPPSS Nuclear Project No. 2, Final Safety Analysis Report, Volume 1, Amendment 18" September 1981		p. 2.5-123	1981

ID	smem	sid
2357	(RSL comment: this material is extracted from theWPPSS Nuclear Project No. 2, Final Safety Analysis Report, Volume 1, Amendment 18", September 1981, Washington Public Power Supply System)	WPPSS

TABLE 2.5-6

Supplement to
"CHRONOLOGICAL LISTING OF EARTHQUAKES WITHIN 200 MILES OF THE SITE"

Page 1 of 8

Year	MOS.	Day	Location	Epicentral Intensity	Remarks	Reference*
1833	Jun	29	Fort Nisqually Oregon City, Ore		occurred between 1846 and 1852	TA TA
1856	Dec	26	Port Townsend, Wash			TA
1857	Sep		Birch Bay, Wash		Whatcom Co.	TA
1859	Apr	1	Olympia, Wash.			WG-1
1860	May	7	Port Townsend, Wash			TA
1866	Nov	30	The Dalles, Ore.			WG-2
1866	Dec		The Dalles, Ore.		Probably Dec. 1	TA
1868	May	30	Mukilteo, Wash.			TA
1868	Jun	20	Mukiltoe-Tulalip, Wash.	Slight.		R
1869	Feb	18	Port Townsend, Wash	Slight.		R
1870	Jun	7	Vancouver, Wash.			R
1871	Jan	20	Olympia, Wash.			R
1871	May	19	mt. Rainier, Wash.			R
1871	jun	20	Seattle, Wash.			WG-2
1872			Walla Walla, Wash.		Period from Dec. 16, 1872 to Jan. 4, 1873 Many light shocks	TA

stype	inst	int	authorevno	fore	aft
M	0	0		0	0

iso	ref	pub	pubpl	pubde	pubda
0	0	Washington Public Power Supply System, "WPPSS Nuclear Project No. 2, Final Safety Analysis Report, Volume 1, Amendment 18" September 1981			1981