

Appendix A. Q/d >= 5.00 facility list

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELComb Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
05-1849	A Division of Cascades Holding US Inc.	OR	Mount Hood Wilderness	OR	87.68	265.03	5,587.00	3.02	63.72	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Mount Adams Wilderness	WA	98.41	265.03	5,587.00	2.69	56.77	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Goat Rocks Wilderness	WA	117.74	265.03	5,587.00	2.25	47.45	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Mount Rainier NP	WA	120.08	265.03	5,587.00	2.21	46.53	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Mount Jefferson Wilderness	OR	137.20	265.03	5,587.00	1.93	40.72	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Mount Washington Wilderness	OR	176.39	265.03	5,587.00	1.50	31.67	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Olympic NP	WA	188.26	265.03	5,587.00	1.41	29.68	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Three Sisters Wilderness	OR	191.45	265.03	5,587.00	1.38	29.18	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Alpine Lakes Wilderness	WA	198.98	265.03	5,587.00	1.33	28.08	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Diamond Peak Wilderness	OR	254.93	265.03	5,587.00	1.04	21.92	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Glacier Peak Wilderness	WA	264.96	265.03	5,587.00	1.00	21.09	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Crater Lake NP	OR	310.45	265.03	5,587.00	0.85	18.00	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	North Cascades NP	WA	315.61	265.03	5,587.00	0.84	17.70	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Strawberry Mountain Wilderness	OR	346.81	265.03	5,587.00	0.76	16.11	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Pasayten Wilderness	WA	349.02	265.03	5,587.00	0.76	16.01	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Mountain Lakes Wilderness	OR	387.79	265.03	5,587.00	0.68	14.41	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Kalmiopsis Wilderness	OR	388.39	265.03	5,587.00	0.68	14.38	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Gearhart Mountain Wilderness	OR	393.56	265.03	5,587.00	0.67	14.20	244.40	14.53	6.10	1,449.00	738.00	3,400.00
05-1849	A Division of Cascades Holding US Inc.	OR	Eagle Cap Wilderness	OR	397.96	265.03	5,587.00	0.67	14.04	244.40	14.53	6.10	1,449.00	738.00	3,400.00
128	Alcoa Primary Metals Intalco Works	WA	Mount Hood Wilderness	OR	386.45	4,776.22	0.00	12.36	0.00	190.17	598.71	3,987.34	0.00	0.00	0.00
01-0029	Ash Grove Cement Company	OR	Eagle Cap Wilderness	OR	51.88	961.92	1,996.00	18.54	38.47	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Hells Canyon Wilderness	ID-OR	76.63	961.92	1,996.00	12.55	26.05	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Strawberry Mountain Wilderness	OR	95.57	961.92	1,996.00	10.07	20.89	788.00	140.82	33.10	1,778.00	176.00	42.00

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELComb Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
01-0029	Ash Grove Cement Company	OR	Sawtooth Wilderness	ID	181.25	961.92	1,996.00	5.31	11.01	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Selway-Bitterroot Wilderness	MT-ID	229.28	961.92	1,996.00	4.20	8.71	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Anaconda Pintler Wilderness	MT	320.60	961.92	1,996.00	3.00	6.23	788.00	140.82	33.10	1,778.00	176.00	42.00
11339	Ash Grove Cement Company	WA	Mount Hood Wilderness	OR	241.76	1,466.47	0.00	6.07	0.00	1,367.89	29.15	69.42	0.00	0.00	0.00
01-0029	Ash Grove Cement Company	OR	Craters of the Moon Wilderness	ID	330.35	961.92	1,996.00	2.91	6.04	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Three Sisters Wilderness	OR	336.77	961.92	1,996.00	2.86	5.93	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Mount Jefferson Wilderness	OR	337.20	961.92	1,996.00	2.85	5.92	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Jarbridge Wilderness	NV	337.29	961.92	1,996.00	2.85	5.92	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Mount Hood Wilderness	OR	341.69	961.92	1,996.00	2.82	5.84	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Mount Washington Wilderness	OR	346.80	961.92	1,996.00	2.77	5.76	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Gearhart Mountain Wilderness	OR	352.57	961.92	1,996.00	2.73	5.66	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Mount Adams Wilderness	WA	363.23	961.92	1,996.00	2.65	5.50	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Spokane Reservation	WA	364.30	961.92	1,996.00	2.64	5.48	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Flathead Reservation	MT	370.36	961.92	1,996.00	2.60	5.39	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Goat Rocks Wilderness	WA	372.31	961.92	1,996.00	2.58	5.36	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0029	Ash Grove Cement Company	OR	Diamond Peak Wilderness	OR	380.19	961.92	1,996.00	2.53	5.25	788.00	140.82	33.10	1,778.00	176.00	42.00
01-0038	Baker Compressor Station	OR	Eagle Cap Wilderness	OR	40.16	161.62	595.00	4.02	14.81	158.48	1.97	1.17	542.00	14.00	39.00
01-0038	Baker Compressor Station	OR	Strawberry Mountain Wilderness	OR	83.21	161.62	595.00	1.94	7.15	158.48	1.97	1.17	542.00	14.00	39.00
01-0038	Baker Compressor Station	OR	Hells Canyon Wilderness	ID-OR	85.62	161.62	595.00	1.89	6.95	158.48	1.97	1.17	542.00	14.00	39.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Mount Rainier NP	WA	114.86	431.25	4,612.00	3.75	40.15	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Mount Adams Wilderness	WA	119.66	431.25	4,612.00	3.60	38.54	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Goat Rocks Wilderness	WA	127.43	431.25	4,612.00	3.38	36.19	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Mount Hood Wilderness	OR	133.28	431.25	4,612.00	3.24	34.60	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Olympic NP	WA	147.97	431.25	4,612.00	2.91	31.17	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Mount Jefferson Wilderness	OR	183.56	431.25	4,612.00	2.35	25.13	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Alpine Lakes Wilderness	WA	185.04	431.25	4,612.00	2.33	24.92	359.22	62.19	9.85	3,776.00	241.00	595.00

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELCOMB Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
05-2520	Beaver Plant/Port Westward I Plant	OR	Mount Washington Wilderness	OR	221.48	431.25	4,612.00	1.95	20.82	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Three Sisters Wilderness	OR	237.18	431.25	4,612.00	1.82	19.44	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Glacier Peak Wilderness	WA	250.45	431.25	4,612.00	1.72	18.41	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Diamond Peak Wilderness	OR	297.42	431.25	4,612.00	1.45	15.51	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	North Cascades NP	WA	297.50	431.25	4,612.00	1.45	15.50	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Pasayten Wilderness	WA	328.95	431.25	4,612.00	1.31	14.02	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Crater Lake NP	OR	351.86	431.25	4,612.00	1.23	13.11	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Strawberry Mountain Wilderness	OR	389.49	431.25	4,612.00	1.11	11.84	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Kalmiopsis Wilderness	OR	417.75	431.25	4,612.00	1.03	11.04	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Mountain Lakes Wilderness	OR	427.74	431.25	4,612.00	1.01	10.78	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Eagle Cap Wilderness	OR	428.90	431.25	4,612.00	1.01	10.75	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Gearhart Mountain Wilderness	OR	437.64	431.25	4,612.00	0.99	10.54	359.22	62.19	9.85	3,776.00	241.00	595.00
05-2520	Beaver Plant/Port Westward I Plant	OR	Hells Canyon Wilderness	ID-OR	500.40	431.25	4,612.00	0.86	9.22	359.22	62.19	9.85	3,776.00	241.00	595.00
15-0159	Biomass One, L.P.	OR	Mountain Lakes Wilderness	OR	56.41	268.89	556.00	4.77	9.86	239.00	15.57	14.32	469.00	48.00	39.00
15-0159	Biomass One, L.P.	OR	Crater Lake NP	OR	62.73	268.89	556.00	4.29	8.86	239.00	15.57	14.32	469.00	48.00	39.00
15-0159	Biomass One, L.P.	OR	Kalmiopsis Wilderness	OR	79.27	268.89	556.00	3.39	7.01	239.00	15.57	14.32	469.00	48.00	39.00
15-0159	Biomass One, L.P.	OR	Marble Mountain Wilderness	CA	87.83	268.89	556.00	3.06	6.33	239.00	15.57	14.32	469.00	48.00	39.00
15-0004	Boise Cascade- Medford	OR	Mountain Lakes Wilderness	OR	60.57	253.68	425.00	4.19	7.02	113.42	125.26	15.00	227.00	167.00	31.00
15-0004	Boise Cascade- Medford	OR	Crater Lake NP	OR	71.93	253.68	425.00	3.53	5.91	113.42	125.26	15.00	227.00	167.00	31.00
15-0004	Boise Cascade- Medford	OR	Kalmiopsis Wilderness	OR	75.12	253.68	425.00	3.38	5.66	113.42	125.26	15.00	227.00	167.00	31.00
15-0004	Boise Cascade- Medford	OR	Marble Mountain Wilderness	CA	78.01	253.68	425.00	3.25	5.45	113.42	125.26	15.00	227.00	167.00	31.00
127	Boise Paper	WA	Eagle Cap Wilderness	OR	114.04	1,656.24	0.00	14.52	0.00	637.27	133.56	885.41	0.00	0.00	0.00
127	Boise Paper	WA	Hells Canyon Wilderness	ID-OR	173.84	1,656.24	0.00	9.53	0.00	637.27	133.56	885.41	0.00	0.00	0.00
127	Boise Paper	WA	Strawberry Mountain Wilderness	OR	193.31	1,656.24	0.00	8.57	0.00	637.27	133.56	885.41	0.00	0.00	0.00
127	Boise Paper	WA	Mount Hood Wilderness	OR	221.76	1,656.24	0.00	7.47	0.00	637.27	133.56	885.41	0.00	0.00	0.00
127	Boise Paper	WA	Mount Jefferson Wilderness	OR	269.21	1,656.24	0.00	6.15	0.00	637.27	133.56	885.41	0.00	0.00	0.00
127	Boise Paper	WA	Mount Washington Wilderness	OR	297.07	1,656.24	0.00	5.58	0.00	637.27	133.56	885.41	0.00	0.00	0.00

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127	Boise Paper	WA	Three Sisters Wilderness	OR	298.55	1,656.24	0.00	5.55	0.00	637.27	133.56	885.41	0.00	0.00	0.00
46	BP CHERRY POINT REFINERY	WA	Mount Hood Wilderness	OR	391.39	2,808.00	0.00	7.17	0.00	1,918.00	82.00	808.00	0.00	0.00	0.00
2175	Cardinal FG Winlock	WA	Mount Hood Wilderness	OR	151.89	881.83	0.00	5.81	0.00	809.14	16.47	56.22	0.00	0.00	0.00
06900001	CLEARWATER PAPER CORP - PPD & CPD	ID	Hells Canyon Wilderness	ID-OR	70.62	1,614.27	0.00	22.86	0.00	1,372.03	191.14	51.09	0.00	0.00	0.00
06900001	CLEARWATER PAPER CORP - PPD & CPD	ID	Eagle Cap Wilderness	OR	114.96	1,614.27	0.00	14.04	0.00	1,372.03	191.14	51.09	0.00	0.00	0.00
06900001	CLEARWATER PAPER CORP - PPD & CPD	ID	Strawberry Mountain Wilderness	OR	265.89	1,614.27	0.00	6.07	0.00	1,372.03	191.14	51.09	0.00	0.00	0.00
18-0013	Collins Products, L.L.C.	OR	Mountain Lakes Wilderness	OR	23.57	112.77	255.00	4.78	10.82	6.85	105.89	0.03	39.00	166.00	50.00
18-0013	Collins Products, L.L.C.	OR	Lava Beds/Schonchin Wilderness	CA	46.50	112.77	255.00	2.43	5.48	6.85	105.89	0.03	39.00	166.00	50.00
18-0013	Collins Products, L.L.C.	OR	Lava Beds/Black Lava Flow Wilderness	CA	47.51	112.77	255.00	2.37	5.37	6.85	105.89	0.03	39.00	166.00	50.00
18-0014	Columbia Forest Products, Inc.	OR	Mountain Lakes Wilderness	OR	24.64	101.08	191.00	4.10	7.75	43.19	57.16	0.73	65.00	87.00	39.00
09-0084	Compressor Station 12	OR	Three Sisters Wilderness	OR	30.44	70.78	430.00	2.33	14.13	63.60	4.62	2.56	377.00	14.00	39.00
09-0084	Compressor Station 12	OR	Diamond Peak Wilderness	OR	49.11	70.78	430.00	1.44	8.76	63.60	4.62	2.56	377.00	14.00	39.00
09-0084	Compressor Station 12	OR	Mount Washington Wilderness	OR	59.59	70.78	430.00	1.19	7.22	63.60	4.62	2.56	377.00	14.00	39.00
09-0084	Compressor Station 12	OR	Mount Jefferson Wilderness	OR	76.99	70.78	430.00	0.92	5.59	63.60	4.62	2.56	377.00	14.00	39.00
18-0006	dba JELD-WEN	OR	Mountain Lakes Wilderness	OR	21.11	44.95	133.00	2.13	6.30	26.59	16.78	1.58	67.00	27.00	39.00
31-0006	Elgin Complex	OR	Eagle Cap Wilderness	OR	18.09	182.26	272.00	10.08	15.04	128.15	41.10	13.01	171.00	62.00	39.00
26-1865	EVRAZ Inc. NA	OR	Mount Hood Wilderness	OR	73.15	261.41	872.00	3.57	11.92	139.40	118.74	3.27	493.00	340.00	39.00
26-1865	EVRAZ Inc. NA	OR	Mount Adams Wilderness	WA	107.17	261.41	872.00	2.44	8.14	139.40	118.74	3.27	493.00	340.00	39.00
26-1865	EVRAZ Inc. NA	OR	Mount Jefferson Wilderness	OR	116.05	261.41	872.00	2.25	7.51	139.40	118.74	3.27	493.00	340.00	39.00
26-1865	EVRAZ Inc. NA	OR	Goat Rocks Wilderness	WA	131.16	261.41	872.00	1.99	6.65	139.40	118.74	3.27	493.00	340.00	39.00
26-1865	EVRAZ Inc. NA	OR	Mount Rainier NP	WA	140.32	261.41	872.00	1.86	6.21	139.40	118.74	3.27	493.00	340.00	39.00
26-1865	EVRAZ Inc. NA	OR	Mount Washington Wilderness	OR	153.02	261.41	872.00	1.71	5.70	139.40	118.74	3.27	493.00	340.00	39.00
26-1865	EVRAZ Inc. NA	OR	Three Sisters Wilderness	OR	168.79	261.41	872.00	1.55	5.17	139.40	118.74	3.27	493.00	340.00	39.00
15-0135	Forever Friends Pet Cremation	OR	Mountain Lakes Wilderness	OR	5.36	0.00	92.00	0.00	17.16	0.00	0.00	0.00	39.00	14.00	39.00
18-0096	Gas Transmission NW - Compressor Station #13	OR	Crater Lake NP	OR	14.08	32.94	277.00	2.34	19.68	29.40	2.08	1.47	224.00	14.00	39.00
18-0096	Gas Transmission NW - Compressor Station #13	OR	Diamond Peak Wilderness	OR	46.81	32.94	277.00	0.70	5.92	29.40	2.08	1.47	224.00	14.00	39.00
04-0004	Georgia Pacific- Wauna Mill	OR	Mount Rainier NP	WA	131.17	2,353.29	4,129.00	17.94	31.48	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Mount Adams Wilderness	WA	137.45	2,353.29	4,129.00	17.12	30.04	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00

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04-0004	Georgia Pacific- Wauna Mill	OR	Goat Rocks Wilderness	WA	144.98	2,353.29	4,129.00	16.23	28.48	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Mount Hood Wilderness	OR	145.47	2,353.29	4,129.00	16.18	28.38	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Olympic NP	WA	148.68	2,353.29	4,129.00	15.83	27.77	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Mount Jefferson Wilderness	OR	192.35	2,353.29	4,129.00	12.23	21.47	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Alpine Lakes Wilderness	WA	198.75	2,353.29	4,129.00	11.84	20.77	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Mount Washington Wilderness	OR	227.76	2,353.29	4,129.00	10.33	18.13	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Three Sisters Wilderness	OR	244.30	2,353.29	4,129.00	9.63	16.90	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Glacier Peak Wilderness	WA	263.09	2,353.29	4,129.00	8.94	15.69	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Diamond Peak Wilderness	OR	300.72	2,353.29	4,129.00	7.83	13.73	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	North Cascades NP	WA	308.65	2,353.29	4,129.00	7.62	13.38	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Pasayten Wilderness	WA	340.01	2,353.29	4,129.00	6.92	12.14	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Crater Lake NP	OR	354.11	2,353.29	4,129.00	6.65	11.66	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Strawberry Mountain Wilderness	OR	404.30	2,353.29	4,129.00	5.82	10.21	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Kalmiopsis Wilderness	OR	413.46	2,353.29	4,129.00	5.69	9.99	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Mountain Lakes Wilderness	OR	430.41	2,353.29	4,129.00	5.47	9.59	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Gearhart Mountain Wilderness	OR	444.94	2,353.29	4,129.00	5.29	9.28	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Eagle Cap Wilderness	OR	447.91	2,353.29	4,129.00	5.25	9.22	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
04-0004	Georgia Pacific- Wauna Mill	OR	Hells Canyon Wilderness	ID-OR	519.72	2,353.29	4,129.00	4.53	7.94	1,037.66	775.80	539.82	2,139.00	1,077.00	913.00
120	Georgia-Pacific Consumer Operations LLC	WA	Mount Hood Wilderness	OR	45.45	689.00	0.00	15.16	0.00	486.00	163.00	40.00	0.00	0.00	0.00
120	Georgia-Pacific Consumer Operations LLC	WA	Mount Jefferson Wilderness	OR	96.44	689.00	0.00	7.14	0.00	486.00	163.00	40.00	0.00	0.00	0.00
21-0005	Georgia-Pacific- Toledo	OR	Three Sisters Wilderness	OR	147.04	1,150.94	2,989.00	7.83	20.33	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Mount Washington Wilderness	OR	157.92	1,150.94	2,989.00	7.29	18.93	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Mount Jefferson Wilderness	OR	158.20	1,150.94	2,989.00	7.28	18.89	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Mount Hood Wilderness	OR	177.98	1,150.94	2,989.00	6.47	16.79	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Diamond Peak Wilderness	OR	180.53	1,150.94	2,989.00	6.38	16.56	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Crater Lake NP	OR	217.65	1,150.94	2,989.00	5.29	13.73	939.11	195.76	16.07	1,351.00	799.00	839.00

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELCComb Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
21-0005	Georgia-Pacific- Toledo	OR	Kalmiopsis Wilderness	OR	239.01	1,150.94	2,989.00	4.82	12.51	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Mount Adams Wilderness	WA	248.27	1,150.94	2,989.00	4.64	12.04	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Goat Rocks Wilderness	WA	274.89	1,150.94	2,989.00	4.19	10.87	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Mount Rainier NP	WA	283.59	1,150.94	2,989.00	4.06	10.54	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Mountain Lakes Wilderness	OR	285.39	1,150.94	2,989.00	4.03	10.47	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Redwood NP	CA	308.32	1,150.94	2,989.00	3.73	9.69	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Olympic NP	WA	317.62	1,150.94	2,989.00	3.62	9.41	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Marble Mountain Wilderness	CA	328.37	1,150.94	2,989.00	3.50	9.10	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Gearhart Mountain Wilderness	OR	333.66	1,150.94	2,989.00	3.45	8.96	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Alpine Lakes Wilderness	WA	362.12	1,150.94	2,989.00	3.18	8.25	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Lava Beds/Schonchin Wilderness	CA	367.03	1,150.94	2,989.00	3.14	8.14	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Lava Beds/Black Lava Flow Wilderness	CA	367.55	1,150.94	2,989.00	3.13	8.13	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Strawberry Mountain Wilderness	OR	398.98	1,150.94	2,989.00	2.88	7.49	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Eagle Cap Wilderness	OR	497.91	1,150.94	2,989.00	2.31	6.00	939.11	195.76	16.07	1,351.00	799.00	839.00
21-0005	Georgia-Pacific- Toledo	OR	Hells Canyon Wilderness	ID-OR	562.46	1,150.94	2,989.00	2.05	5.31	939.11	195.76	16.07	1,351.00	799.00	839.00
22-3501	Halsey Pulp Mill	OR	Three Sisters Wilderness	OR	80.37	711.79	1,904.00	8.86	23.69	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Mount Washington Wilderness	OR	93.56	711.79	1,904.00	7.61	20.35	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Mount Jefferson Wilderness	OR	96.77	711.79	1,904.00	7.36	19.68	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Diamond Peak Wilderness	OR	118.12	711.79	1,904.00	6.03	16.12	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Mount Hood Wilderness	OR	144.69	711.79	1,904.00	4.92	13.16	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Crater Lake NP	OR	162.43	711.79	1,904.00	4.38	11.72	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Kalmiopsis Wilderness	OR	224.18	711.79	1,904.00	3.18	8.49	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Mount Adams Wilderness	WA	228.78	711.79	1,904.00	3.11	8.32	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Mountain Lakes Wilderness	OR	235.68	711.79	1,904.00	3.02	8.08	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Goat Rocks Wilderness	WA	258.63	711.79	1,904.00	2.75	7.36	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Gearhart Mountain Wilderness	OR	271.53	711.79	1,904.00	2.62	7.01	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Mount Rainier NP	WA	279.04	711.79	1,904.00	2.55	6.82	352.06	278.81	80.92	687.00	366.00	851.00

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELCOMB Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
22-3501	Halsey Pulp Mill	OR	Redwood NP	CA	292.87	711.79	1,904.00	2.43	6.50	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Marble Mountain Wilderness	CA	298.49	711.79	1,904.00	2.38	6.38	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Lava Beds/Schonchin Wilderness	CA	314.47	711.79	1,904.00	2.26	6.05	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Lava Beds/Black Lava Flow Wilderness	CA	316.00	711.79	1,904.00	2.25	6.03	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Strawberry Mountain Wilderness	OR	336.99	711.79	1,904.00	2.11	5.65	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Olympic NP	WA	346.70	711.79	1,904.00	2.05	5.49	352.06	278.81	80.92	687.00	366.00	851.00
22-3501	Halsey Pulp Mill	OR	Alpine Lakes Wilderness	WA	359.71	711.79	1,904.00	1.98	5.29	352.06	278.81	80.92	687.00	366.00	851.00
18-0005	Interfor Gilchrist	OR	Diamond Peak Wilderness	OR	22.30	187.74	351.00	8.42	15.74	60.15	125.28	2.31	104.00	208.00	39.00
18-0005	Interfor Gilchrist	OR	Three Sisters Wilderness	OR	39.29	187.74	351.00	4.78	8.93	60.15	125.28	2.31	104.00	208.00	39.00
18-0005	Interfor Gilchrist	OR	Crater Lake NP	OR	50.36	187.74	351.00	3.73	6.97	60.15	125.28	2.31	104.00	208.00	39.00
208850	INTERNATIONAL PAPER	OR	Three Sisters Wilderness	OR	58.94	973.05	0.00	16.51	0.00	724.02	181.39	67.64	0.00	0.00	0.00
208850	INTERNATIONAL PAPER	OR	Diamond Peak Wilderness	OR	81.00	973.05	0.00	12.01	0.00	724.02	181.39	67.64	0.00	0.00	0.00
208850	INTERNATIONAL PAPER	OR	Mount Washington Wilderness	OR	81.85	973.05	0.00	11.89	0.00	724.02	181.39	67.64	0.00	0.00	0.00
208850	INTERNATIONAL PAPER	OR	Mount Jefferson Wilderness	OR	91.41	973.05	0.00	10.65	0.00	724.02	181.39	67.64	0.00	0.00	0.00
208850	INTERNATIONAL PAPER	OR	Crater Lake NP	OR	122.67	973.05	0.00	7.93	0.00	724.02	181.39	67.64	0.00	0.00	0.00
208850	INTERNATIONAL PAPER	OR	Mount Hood Wilderness	OR	164.50	973.05	0.00	5.92	0.00	724.02	181.39	67.64	0.00	0.00	0.00
09-9502	Joyfield Corporation	OR	Three Sisters Wilderness	OR	14.10	0.00	92.00	0.00	6.52	0.00	0.00	0.00	39.00	14.00	39.00
09-9502	Joyfield Corporation	OR	Mount Washington Wilderness	OR	17.14	0.00	92.00	0.00	5.37	0.00	0.00	0.00	39.00	14.00	39.00
204402	KINGSFORD MANUFACTURING COMPANY	OR	Three Sisters Wilderness	OR	60.86	510.81	0.00	8.39	0.00	289.12	177.59	44.10	0.00	0.00	0.00
204402	KINGSFORD MANUFACTURING COMPANY	OR	Diamond Peak Wilderness	OR	83.19	510.81	0.00	6.14	0.00	289.12	177.59	44.10	0.00	0.00	0.00
204402	KINGSFORD MANUFACTURING COMPANY	OR	Mount Washington Wilderness	OR	83.58	510.81	0.00	6.11	0.00	289.12	177.59	44.10	0.00	0.00	0.00
204402	KINGSFORD MANUFACTURING COMPANY	OR	Mount Jefferson Wilderness	OR	92.71	510.81	0.00	5.51	0.00	289.12	177.59	44.10	0.00	0.00	0.00
18-0003	Klamath Cogeneration Proj	OR	Mountain Lakes Wilderness	OR	24.45	168.96	401.00	6.91	16.40	143.00	19.56	6.40	314.00	48.00	39.00
18-0003	Klamath Cogeneration Proj	OR	Lava Beds/Schonchin Wilderness	CA	46.14	168.96	401.00	3.66	8.69	143.00	19.56	6.40	314.00	48.00	39.00
18-0003	Klamath Cogeneration Proj	OR	Lava Beds/Black Lava Flow Wilderness	CA	47.39	168.96	401.00	3.57	8.46	143.00	19.56	6.40	314.00	48.00	39.00
18-0003	Klamath Cogeneration Proj	OR	Crater Lake NP	OR	68.99	168.96	401.00	2.45	5.81	143.00	19.56	6.40	314.00	48.00	39.00
121	Longview Fibre Paper and Packaging, Inc. dba KapStone Kraft Paper Corporation	WA	Mount Hood Wilderness	OR	113.46	1,449.26	0.00	12.77	0.00	1,040.95	210.33	197.98	0.00	0.00	0.00
121	Longview Fibre Paper and Packaging, Inc. dba KapStone Kraft Paper Corporation	WA	Mount Jefferson Wilderness	OR	166.15	1,449.26	0.00	8.72	0.00	1,040.95	210.33	197.98	0.00	0.00	0.00

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELCOMB Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
121	Longview Fibre Paper and Packaging, Inc. dba KapStone Kraft Paper Corporation	WA	Mount Washington Wilderness	OR	206.12	1,449.26	0.00	7.03	0.00	1,040.95	210.33	197.98	0.00	0.00	0.00
121	Longview Fibre Paper and Packaging, Inc. dba KapStone Kraft Paper Corporation	WA	Three Sisters Wilderness	OR	220.95	1,449.26	0.00	6.56	0.00	1,040.95	210.33	197.98	0.00	0.00	0.00
121	Longview Fibre Paper and Packaging, Inc. dba KapStone Kraft Paper Corporation	WA	Diamond Peak Wilderness	OR	284.63	1,449.26	0.00	5.09	0.00	1,040.95	210.33	197.98	0.00	0.00	0.00
122	Nippon Dynawave Packaging Co.	WA	Mount Hood Wilderness	OR	118.70	2,463.94	0.00	20.76	0.00	1,949.43	124.30	390.21	0.00	0.00	0.00
122	Nippon Dynawave Packaging Co.	WA	Mount Jefferson Wilderness	OR	171.11	2,463.94	0.00	14.40	0.00	1,949.43	124.30	390.21	0.00	0.00	0.00
122	Nippon Dynawave Packaging Co.	WA	Mount Washington Wilderness	OR	210.78	2,463.94	0.00	11.69	0.00	1,949.43	124.30	390.21	0.00	0.00	0.00
122	Nippon Dynawave Packaging Co.	WA	Three Sisters Wilderness	OR	225.75	2,463.94	0.00	10.91	0.00	1,949.43	124.30	390.21	0.00	0.00	0.00
122	Nippon Dynawave Packaging Co.	WA	Diamond Peak Wilderness	OR	288.85	2,463.94	0.00	8.53	0.00	1,949.43	124.30	390.21	0.00	0.00	0.00
122	Nippon Dynawave Packaging Co.	WA	Crater Lake NP	OR	344.04	2,463.94	0.00	7.16	0.00	1,949.43	124.30	390.21	0.00	0.00	0.00
122	Nippon Dynawave Packaging Co.	WA	Strawberry Mountain Wilderness	OR	373.50	2,463.94	0.00	6.60	0.00	1,949.43	124.30	390.21	0.00	0.00	0.00
12-0032	Ochoco Lumber Company	OR	Strawberry Mountain Wilderness	OR	8.46	0.00	120.00	0.00	14.19	0.00	0.00	0.00	50.00	31.00	39.00
03-2729	Oregon City Compressor Station	OR	Mount Hood Wilderness	OR	43.82	159.40	591.00	3.64	13.49	156.66	1.72	1.02	536.00	16.00	39.00
03-2729	Oregon City Compressor Station	OR	Mount Jefferson Wilderness	OR	81.26	159.40	591.00	1.96	7.27	156.66	1.72	1.02	536.00	16.00	39.00
03-2729	Oregon City Compressor Station	OR	Mount Adams Wilderness	WA	106.80	159.40	591.00	1.49	5.53	156.66	1.72	1.02	536.00	16.00	39.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Mount Hood Wilderness	OR	55.05	597.87	1,156.00	10.86	21.00	403.65	76.15	118.07	711.00	132.00	313.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Mount Adams Wilderness	WA	97.54	597.87	1,156.00	6.13	11.85	403.65	76.15	118.07	711.00	132.00	313.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Mount Jefferson Wilderness	OR	100.59	597.87	1,156.00	5.94	11.49	403.65	76.15	118.07	711.00	132.00	313.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Goat Rocks Wilderness	WA	124.17	597.87	1,156.00	4.81	9.31	403.65	76.15	118.07	711.00	132.00	313.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Mount Rainier NP	WA	139.73	597.87	1,156.00	4.28	8.27	403.65	76.15	118.07	711.00	132.00	313.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Mount Washington Wilderness	OR	140.22	597.87	1,156.00	4.26	8.24	403.65	76.15	118.07	711.00	132.00	313.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Three Sisters Wilderness	OR	154.91	597.87	1,156.00	3.86	7.46	403.65	76.15	118.07	711.00	132.00	313.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Alpine Lakes Wilderness	WA	220.40	597.87	1,156.00	2.71	5.25	403.65	76.15	118.07	711.00	132.00	313.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Diamond Peak Wilderness	OR	220.45	597.87	1,156.00	2.71	5.24	403.65	76.15	118.07	711.00	132.00	313.00
26-1876	Owens-Brockway Glass Container Inc.	OR	Olympic NP	WA	223.32	597.87	1,156.00	2.68	5.18	403.65	76.15	118.07	711.00	132.00	313.00
08-0003	Pacific Wood Laminates, Inc.	OR	Kalmiopsis Wilderness	OR	23.52	194.89	294.00	8.29	12.50	52.50	139.12	3.27	76.00	189.00	29.00
08-0003	Pacific Wood Laminates, Inc.	OR	Redwood NP	CA	27.44	194.89	294.00	7.10	10.72	52.50	139.12	3.27	76.00	189.00	29.00
31-0002	Particleboard	OR	Eagle Cap Wilderness	OR	24.99	332.96	460.00	13.32	18.41	305.10	25.49	2.38	379.00	42.00	39.00
25-0016	PGE Boardman	OR	Mount Adams Wilderness	WA	137.66	5,453.74	16,572.00	39.62	120.38	1,768.12	387.75	3,297.87	5,961.00	1,086.00	9,525.00

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELCOMB Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
25-0016	PGE Boardman	OR	Mount Hood Wilderness	OR	142.61	5,453.74	16,572.00	38.24	116.21	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Goat Rocks Wilderness	WA	145.09	5,453.74	16,572.00	37.59	114.22	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Strawberry Mountain Wilderness	OR	163.33	5,453.74	16,572.00	33.39	101.47	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Eagle Cap Wilderness	OR	164.42	5,453.74	16,572.00	33.17	100.79	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Mount Rainier NP	WA	174.24	5,453.74	16,572.00	31.30	95.11	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Mount Jefferson Wilderness	OR	186.47	5,453.74	16,572.00	29.25	88.87	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Alpine Lakes Wilderness	WA	205.90	5,453.74	16,572.00	26.49	80.49	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Mount Washington Wilderness	OR	215.09	5,453.74	16,572.00	25.36	77.05	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Three Sisters Wilderness	OR	216.94	5,453.74	16,572.00	25.14	76.39	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Hells Canyon Wilderness	ID-OR	240.57	5,453.74	16,572.00	22.67	68.89	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Glacier Peak Wilderness	WA	255.89	5,453.74	16,572.00	21.31	64.76	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Spokane Reservation	WA	268.73	5,453.74	16,572.00	20.29	61.67	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Diamond Peak Wilderness	OR	293.54	5,453.74	16,572.00	18.58	56.46	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	North Cascades NP	WA	307.96	5,453.74	16,572.00	17.71	53.81	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Olympic NP	WA	335.41	5,453.74	16,572.00	16.26	49.41	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Pasayten Wilderness	WA	336.23	5,453.74	16,572.00	16.22	49.29	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Crater Lake NP	OR	338.37	5,453.74	16,572.00	16.12	48.98	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Selway-Bitterroot Wilderness	MT-ID	347.23	5,453.74	16,572.00	15.71	47.73	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Gearhart Mountain Wilderness	OR	354.86	5,453.74	16,572.00	15.37	46.70	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Mountain Lakes Wilderness	OR	428.46	5,453.74	16,572.00	12.73	38.68	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
25-0016	PGE Boardman	OR	Kalmiopsis Wilderness	OR	504.68	5,453.74	16,572.00	10.81	32.84	1,768.1 2	387.75	3,297.8 7	5,961.0 0	1,086.00	9,525.0 0
---	Portland International Airport	OR	Mount Hood Wilderness	OR	60.28	1,806.21	0.00	29.96	0.00	1,550.5 3	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Mount Adams Wilderness	WA	98.57	1,806.21	0.00	18.32	0.00	1,550.5 3	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Mount Jefferson Wilderness	OR	105.81	1,806.21	0.00	17.07	0.00	1,550.5 3	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Goat Rocks Wilderness	WA	124.38	1,806.21	0.00	14.52	0.00	1,550.5 3	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Mount Rainier NP	WA	137.96	1,806.21	0.00	13.09	0.00	1,550.5 3	40.85	214.82	0.00	0.00	0.00

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELCComb Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
---	Portland International Airport	OR	Mount Washington Wilderness	OR	144.96	1,806.21	0.00	12.46	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Three Sisters Wilderness	OR	159.87	1,806.21	0.00	11.30	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Alpine Lakes Wilderness	WA	218.55	1,806.21	0.00	8.26	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Olympic NP	WA	218.87	1,806.21	0.00	8.25	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Diamond Peak Wilderness	OR	224.61	1,806.21	0.00	8.04	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Crater Lake NP	OR	280.60	1,806.21	0.00	6.44	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Glacier Peak Wilderness	WA	283.36	1,806.21	0.00	6.37	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Strawberry Mountain Wilderness	OR	321.71	1,806.21	0.00	5.61	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	North Cascades NP	WA	335.61	1,806.21	0.00	5.38	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
---	Portland International Airport	OR	Mountain Lakes Wilderness	OR	358.18	1,806.21	0.00	5.04	0.00	1,550.53	40.85	214.82	0.00	0.00	0.00
31-0008	R. D. Mac, Inc.	OR	Eagle Cap Wilderness	OR	27.26	0.00	184.00	0.00	6.75	0.00	0.00	0.00	78.00	28.00	78.00
10-0025	Roseburg Forest Products - Dillard	OR	Kalmiopsis Wilderness	OR	81.78	1,559.71	2,508.00	19.07	30.67	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Crater Lake NP	OR	91.38	1,559.71	2,508.00	17.07	27.44	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Diamond Peak Wilderness	OR	108.86	1,559.71	2,508.00	14.33	23.04	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Mountain Lakes Wilderness	OR	128.44	1,559.71	2,508.00	12.14	19.53	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Three Sisters Wilderness	OR	136.52	1,559.71	2,508.00	11.42	18.37	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Redwood NP	CA	150.14	1,559.71	2,508.00	10.39	16.70	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Marble Mountain Wilderness	CA	155.21	1,559.71	2,508.00	10.05	16.16	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Mount Washington Wilderness	OR	171.49	1,559.71	2,508.00	9.10	14.62	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Mount Jefferson Wilderness	OR	191.27	1,559.71	2,508.00	8.15	13.11	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Lava Beds/Black Lava Flow Wilderness	CA	208.51	1,559.71	2,508.00	7.48	12.03	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Lava Beds/Schonchin Wilderness	CA	210.07	1,559.71	2,508.00	7.42	11.94	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Gearhart Mountain Wilderness	OR	213.71	1,559.71	2,508.00	7.30	11.74	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Mount Hood Wilderness	OR	276.60	1,559.71	2,508.00	5.64	9.07	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Thousand Lakes Wilderness	CA	301.34	1,559.71	2,508.00	5.18	8.32	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	South Warner Wilderness	CA	318.14	1,559.71	2,508.00	4.90	7.88	1,006.94	479.24	73.52	1,655.00	743.00	110.00

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELCOMB Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
10-0025	Roseburg Forest Products - Dillard	OR	Lassen Volcanic NP	CA	320.28	1,559.71	2,508.00	4.87	7.83	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Yolla Bolly-Middle Eel Wilderness	CA	321.08	1,559.71	2,508.00	4.86	7.81	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Caribou Wilderness	CA	332.88	1,559.71	2,508.00	4.69	7.53	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Mount Adams Wilderness	WA	366.33	1,559.71	2,508.00	4.26	6.85	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Strawberry Mountain Wilderness	OR	385.69	1,559.71	2,508.00	4.04	6.50	1,006.94	479.24	73.52	1,655.00	743.00	110.00
10-0025	Roseburg Forest Products - Dillard	OR	Goat Rocks Wilderness	WA	397.16	1,559.71	2,508.00	3.93	6.31	1,006.94	479.24	73.52	1,655.00	743.00	110.00
15-0073	Roseburg Forest Products- Medford MDF	OR	Mountain Lakes Wilderness	OR	59.50	173.33	526.00	2.91	8.84	131.16	36.24	5.94	272.00	215.00	39.00
15-0073	Roseburg Forest Products- Medford MDF	OR	Crater Lake NP	OR	71.80	173.33	526.00	2.41	7.33	131.16	36.24	5.94	272.00	215.00	39.00
15-0073	Roseburg Forest Products- Medford MDF	OR	Kalmiopsis Wilderness	OR	76.27	173.33	526.00	2.27	6.90	131.16	36.24	5.94	272.00	215.00	39.00
15-0073	Roseburg Forest Products- Medford MDF	OR	Marble Mountain Wilderness	CA	77.45	173.33	526.00	2.24	6.79	131.16	36.24	5.94	272.00	215.00	39.00
10-0078	Roseburg Forest Products- Riddle Plywood	OR	Kalmiopsis Wilderness	OR	68.95	144.78	365.00	2.10	5.29	79.49	50.16	15.13	199.00	127.00	39.00
---	Seattle-Tacoma Intl	WA	Mount Hood Wilderness	OR	226.99	4,286.64	0.00	18.88	0.00	3,704.20	76.43	506.01	0.00	0.00	0.00
---	Seattle-Tacoma Intl	WA	Mount Jefferson Wilderness	OR	294.45	4,286.64	0.00	14.56	0.00	3,704.20	76.43	506.01	0.00	0.00	0.00
---	Seattle-Tacoma Intl	WA	Mount Washington Wilderness	OR	341.53	4,286.64	0.00	12.55	0.00	3,704.20	76.43	506.01	0.00	0.00	0.00
---	Seattle-Tacoma Intl	WA	Three Sisters Wilderness	OR	351.62	4,286.64	0.00	12.19	0.00	3,704.20	76.43	506.01	0.00	0.00	0.00
10-0045	Swanson Group Mfg. LLC	OR	Kalmiopsis Wilderness	OR	48.81	202.99	312.00	4.16	6.39	55.24	144.76	2.99	80.00	193.00	39.00
2	TESORO NORTHWEST COMPANY	WA	Mount Hood Wilderness	OR	347.26	2,194.33	0.00	6.32	0.00	1,970.78	143.83	79.72	0.00	0.00	0.00
15-0025	Timber Products Co. Limited Partnership	OR	Mountain Lakes Wilderness	OR	59.35	96.82	360.00	1.63	6.07	69.18	25.21	2.43	162.00	159.00	39.00
754	TransAlta Centralia Generation, LLC	WA	Mount Hood Wilderness	OR	169.98	8,323.32	0.00	48.97	0.00	6,214.37	419.33	1,689.62	0.00	0.00	0.00
754	TransAlta Centralia Generation, LLC	WA	Mount Jefferson Wilderness	OR	230.03	8,323.32	0.00	36.18	0.00	6,214.37	419.33	1,689.62	0.00	0.00	0.00
754	TransAlta Centralia Generation, LLC	WA	Mount Washington Wilderness	OR	273.59	8,323.32	0.00	30.42	0.00	6,214.37	419.33	1,689.62	0.00	0.00	0.00
754	TransAlta Centralia Generation, LLC	WA	Three Sisters Wilderness	OR	286.66	8,323.32	0.00	29.04	0.00	6,214.37	419.33	1,689.62	0.00	0.00	0.00
754	TransAlta Centralia Generation, LLC	WA	Diamond Peak Wilderness	OR	354.92	8,323.32	0.00	23.45	0.00	6,214.37	419.33	1,689.62	0.00	0.00	0.00
AP49110457	VALMY COOLING TOWER #2	NV	Gearhart Mountain Wilderness	OR	348.95	2,858.07	0.00	8.19	0.00	1,218.79	51.01	1,588.27	0.00	0.00	0.00
AP49110457	VALMY COOLING TOWER #2	NV	Strawberry Mountain Wilderness	OR	391.79	2,858.07	0.00	7.29	0.00	1,218.79	51.01	1,588.27	0.00	0.00	0.00
03-2145	West Linn Paper Company	OR	Mount Hood Wilderness	OR	53.74	203.83	1,422.00	3.79	26.46	186.13	14.99	2.72	597.00	82.00	743.00
03-2145	West Linn Paper Company	OR	Mount Jefferson Wilderness	OR	85.10	203.83	1,422.00	2.40	16.71	186.13	14.99	2.72	597.00	82.00	743.00

Agency Facility ID	Facility Name	Fac State	CIA Name	CIA State	Distance (km)	ActualComb Q (tpy)	PSELCComb Q (tpy)	Q/d Actual	Q/d PSEL	NOX Actual	PM10-PRI Actual	SO2 Actual	NOX PSEL	PM10-PRI PSEL	SO2 PSEL
03-2145	West Linn Paper Company	OR	Mount Adams Wilderness	WA	116.25	203.83	1,422.00	1.75	12.23	186.13	14.99	2.72	597.00	82.00	743.00
03-2145	West Linn Paper Company	OR	Mount Washington Wilderness	OR	120.50	203.83	1,422.00	1.69	11.80	186.13	14.99	2.72	597.00	82.00	743.00
03-2145	West Linn Paper Company	OR	Three Sisters Wilderness	OR	136.48	203.83	1,422.00	1.49	10.42	186.13	14.99	2.72	597.00	82.00	743.00
03-2145	West Linn Paper Company	OR	Goat Rocks Wilderness	WA	144.45	203.83	1,422.00	1.41	9.84	186.13	14.99	2.72	597.00	82.00	743.00
03-2145	West Linn Paper Company	OR	Mount Rainier NP	WA	162.67	203.83	1,422.00	1.25	8.74	186.13	14.99	2.72	597.00	82.00	743.00
03-2145	West Linn Paper Company	OR	Diamond Peak Wilderness	OR	198.50	203.83	1,422.00	1.03	7.16	186.13	14.99	2.72	597.00	82.00	743.00
03-2145	West Linn Paper Company	OR	Alpine Lakes Wilderness	WA	243.34	203.83	1,422.00	0.84	5.84	186.13	14.99	2.72	597.00	82.00	743.00
03-2145	West Linn Paper Company	OR	Olympic NP	WA	244.72	203.83	1,422.00	0.83	5.81	186.13	14.99	2.72	597.00	82.00	743.00
03-2145	West Linn Paper Company	OR	Crater Lake NP	OR	254.28	203.83	1,422.00	0.80	5.59	186.13	14.99	2.72	597.00	82.00	743.00
125	WestRock Tacoma Mill	WA	Mount Hood Wilderness	OR	210.43	1,532.36	0.00	7.28	0.00	1,120.90	221.74	189.72	0.00	0.00	0.00
125	WestRock Tacoma Mill	WA	Mount Jefferson Wilderness	OR	276.92	1,532.36	0.00	5.53	0.00	1,120.90	221.74	189.72	0.00	0.00	0.00

Appendix B. Oregon facilities with potential visibility impacts in other states

Row Labels	CIAName	Facility Name	Q/d Actual	Q/d PSEL
WA	Alpine Lakes Wilderness	A Division of Cascades Holding US Inc.	1.33	28.08
		Beaver Plant/Port Westward I Plant	2.33	24.92
		Georgia Pacific- Wauna Mill	11.84	20.77
		Georgia-Pacific- Toledo	3.18	8.25
		Halsey Pulp Mill	1.98	5.29
		Owens-Brockway Glass Container Inc.	2.71	5.25
		PGE Boardman	26.49	80.49
		Portland International Airport	8.26	0.00
		Willamette Falls Paper Company	0.84	5.84
	Glacier Peak Wilderness	A Division of Cascades Holding US Inc.	1.00	21.09
		Beaver Plant/Port Westward I Plant	1.72	18.41
		Georgia Pacific- Wauna Mill	8.94	15.69
		PGE Boardman	21.31	64.76
		Portland International Airport	6.37	0.00
		Goat Rocks Wilderness	A Division of Cascades Holding US Inc.	2.25
	Ash Grove Cement Company		2.58	5.36
	Beaver Plant/Port Westward I Plant		3.38	36.19
	EVRAZ Inc. NA		1.99	6.65
	Georgia Pacific- Wauna Mill		16.23	28.48
	Georgia-Pacific- Toledo		4.19	10.87
	Halsey Pulp Mill		2.75	7.36
	Owens-Brockway Glass Container Inc.		4.81	9.31
	PGE Boardman		37.59	114.22
	Portland International Airport		14.52	0.00
	Roseburg Forest Products - Dillard		3.93	6.31

Row Labels	CIAName	Facility Name	Q/d Actual	Q/d PSEL
		Willamette Falls Paper Company	1.41	9.84
	Mount Adams Wilderness	A Division of Cascades Holding US Inc.	2.69	56.77
		Ash Grove Cement Company	2.65	5.50
		Beaver Plant/Port Westward I Plant	3.60	38.54
		EVRAZ Inc. NA	2.44	8.14
		Georgia Pacific- Wauna Mill	17.12	30.04
		Georgia-Pacific- Toledo	4.64	12.04
		Halsey Pulp Mill	3.11	8.32
		Oregon City Compressor Station	1.49	5.53
		Owens-Brockway Glass Container Inc.	6.13	11.85
		PGE Boardman	39.62	120.38
		Portland International Airport	18.32	0.00
		Roseburg Forest Products - Dillard	4.26	6.85
		Willamette Falls Paper Company	1.75	12.23
	Mount Rainier NP	A Division of Cascades Holding US Inc.	2.21	46.53
		Beaver Plant/Port Westward I Plant	3.75	40.15
		EVRAZ Inc. NA	1.86	6.21
		Georgia Pacific- Wauna Mill	17.94	31.48
		Georgia-Pacific- Toledo	4.06	10.54
		Halsey Pulp Mill	2.55	6.82
		Owens-Brockway Glass Container Inc.	4.28	8.27
		PGE Boardman	31.30	95.11
		Portland International Airport	13.09	0.00
		Willamette Falls Paper Company	1.25	8.74
	North Cascades NP	A Division of Cascades Holding US Inc.	0.84	17.70
		Beaver Plant/Port Westward I Plant	1.45	15.50
		Georgia Pacific- Wauna Mill	7.62	13.38
		PGE Boardman	17.71	53.81
		Portland International Airport	5.38	0.00
	Olympic NP	A Division of Cascades Holding US Inc.	1.41	29.68
		Beaver Plant/Port Westward I Plant	2.91	31.17

Row Labels	CIAName	Facility Name	Q/d Actual	Q/d PSEL
		Georgia Pacific- Wauna Mill	15.83	27.77
		Georgia-Pacific- Toledo	3.62	9.41
		Halsey Pulp Mill	2.05	5.49
		Owens-Brockway Glass Container Inc.	2.68	5.18
		PGE Boardman	16.26	49.41
		Portland International Airport	8.25	0.00
		Willamette Falls Paper Company	0.83	5.81
	Pasayten Wilderness	A Division of Cascades Holding US Inc.	0.76	16.01
		Beaver Plant/Port Westward I Plant	1.31	14.02
		Georgia Pacific- Wauna Mill	6.92	12.14
		PGE Boardman	16.22	49.29
	Spokane Reservation	Ash Grove Cement Company	2.64	5.48
		PGE Boardman	20.29	61.67
NV	Jarbridge Wilderness	Ash Grove Cement Company	2.85	5.92
MT-ID	Selway-Bitterroot Wilderness	Ash Grove Cement Company	4.20	8.71
		PGE Boardman	15.71	47.73
MT	Anaconda Pintler Wilderness	Ash Grove Cement Company	3.00	6.23
	Flathead Reservation	Ash Grove Cement Company	2.60	5.39
ID	Craters of the Moon Wilderness	Ash Grove Cement Company	2.91	6.04
	Sawtooth Wilderness	Ash Grove Cement Company	5.31	11.01
CA	Caribou Wilderness	Roseburg Forest Products - Dillard	4.69	7.53
	Lassen Volcanic NP	Roseburg Forest Products - Dillard	4.87	7.83
	Lava Beds/Black Lava Flow Wilderness	Collins Products, L.L.C.	2.37	5.37
		Georgia-Pacific- Toledo	3.13	8.13
		Halsey Pulp Mill	2.25	6.03
		Klamath Cogeneration Proj	3.57	8.46
		Roseburg Forest Products - Dillard	7.48	12.03
	Lava Beds/Schonchin Wilderness	Collins Products, L.L.C.	2.43	5.48
		Georgia-Pacific- Toledo	3.14	8.14
		Halsey Pulp Mill	2.26	6.05
		Klamath Cogeneration Proj	3.66	8.69

Row Labels	CIAName	Facility Name	Q/d Actual	Q/d PSEL
		Roseburg Forest Products - Dillard	7.42	11.94
	Marble Mountain Wilderness	Biomass One, L.P.	3.06	6.33
		Boise Cascade- Medford	3.25	5.45
		Georgia-Pacific- Toledo	3.50	9.10
		Halsey Pulp Mill	2.38	6.38
		Roseburg Forest Products - Dillard	10.05	16.16
		Roseburg Forest Products- Medford MDF	2.24	6.79
	Redwood NP	Georgia-Pacific- Toledo	3.73	9.69
		Halsey Pulp Mill	2.43	6.50
		Pacific Wood Laminates, Inc.	7.10	10.72
		Roseburg Forest Products - Dillard	10.39	16.70
	South Warner Wilderness	Roseburg Forest Products - Dillard	4.90	7.88
	Thousand Lakes Wilderness	Roseburg Forest Products - Dillard	5.18	8.32
	Yolla Bolly-Middle Eel Wilderness	Roseburg Forest Products - Dillard	4.86	7.81

Appendix C. Comparisons of data used to calculate environmental justice “scores”

This table is taken from Driver et al (2019) and adapted to include Washington’s model, and the data used in the current “run” of the environmental justice score.

Indicators	Description	EPA EJSCREEN	Cal EnviroScreen	MD EJSCREEN	WA Env Health Disp Map	OR EJSCREEN (in progress)
Pollution Burden: Exposure						
National Scale Air Toxics Air (NATA) Toxics Cancer Risk	Lifetime risk of developing cancer from inhalation of air toxins. Reported as risk per lifetime per million people [36].	X		X		
NATA Respiratory Hazard Index	Air toxics respiratory hazard index. This is the sum of hazard indices for those air toxics with reference concentrations based on respiratory endpoints, where each hazard index is the ratio of exposure concentration in the air to the health-based reference [36].	X		X		
NATA Diesel Particulate Matter (DPM)	Levels of diesel particulate matter in air. Reported as micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) [35,36].	X	X	X	X	X
Particulate Matter ($\text{PM}_{2.5}$)	Levels of particulate matter with a diameter of 2.5 micrometers or smaller in air. Reported as micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) [35,36].	X	X	X	X	X
Ozone	Summer seasonal average of the maximum daily 8-hour concentration of ozone in air in parts per billion [35,36].	X	X	X	X	X
Traffic Proximity and Volume	Count of vehicles (average annual daily traffic) at major roads within 500 meters or close to 500 meters, divided by distance in meters [35,36].	X	X	X	X	X
Pesticide Use	Total pounds of selected active pesticide ingredients (filtered for hazard and volatility) used in production-agriculture per square mile, averaged over three years (2012 to 2014) [36].		X			

Indicators	Description	EPA EJSCREEN	Cal EnviroScreen	MD EJSCREEN	WA Env Health Disp Map	OR EJSCREEN (in progress)
Drinking Water Contaminants	Water tested to contain one or more contaminants listed in 'Update to California Communities Environmental Health Screening Tool'. Reported as yearly averages of chemical contaminant concentrations for each census tract [36].		X			
Toxic Releases from Facilities	Toxicity-weighted concentrations of modeled chemical releases to air from facility emissions and off-site incineration (averaged over 2011 to 2013) [36].		X		X	?
Pollution Burden: Environmental Effects						
Lead Paint Indicator	Percent of houses built before 1960, which likely contain lead paint [36].	X		X	X	X
Proximity to Risk Management Plan (RMP) Sites	Count of RMP (potential chemical accident management plans) facilities within 5 kilometers or close to 5 kilometers, divided by distance in kilometers [36].	X		X	X	X
Proximity to Treatment Storage and Disposal Facilities (TSDF)	Count of TSDF (hazardous waste management facilities) within 5 kilometers or closest to 5 kilometers, divided by distance in kilometers [36].	X		X	X	X
Proximity to National Priorities List (NPL) Sites	Count of NPL/Superfund sites (polluted sites that pose a risk to human health and/or the environment) within 5 kilometers or close to 5 kilometers, divided by distance in kilometers [35,36].	X	X	X	X	X
Proximity to Major Direct Water Discharges	Toxic concentrations in stream segments within 500 meters, divided by distance in kilometers (km). Standards modeled after Risk-Screening Environmental Indicators (RSEI) [36].	X		X	X	X
Watershed Failure	Percent of each census tract's watershed that exceeds levels of phosphorus and/or nitrogen [39].			X		
Groundwater Threat	Nature and the magnitude of the threat and burden to groundwater safety posed by sites maintained in GeoTracker [35].		X			
Impaired Water Bodies	Contamination of streams, rivers, and lakes by pollutants which compromise the ability to use a body of water for drinking, swimming, fishing, aquatic life protection, etc. [35].		X			

Indicators	Description	EPA EJSCREEN	Cal EnviroScreen	MD EJSCREEN	WA Env Health Disp Map	OR EJSCREEN (in progress)
Solid Waste Sites and Facilities	Solid waste landfills, composting, and recycling facilities [35].		X			
Population Characteristics: Sensitive Populations						
Asthma Emergency Discharges	Count of patients released from the hospital after being admitted for asthma or asthma-related distress [40].			X		
Myocardial Infarction Discharges	Patients released from the hospital after being admitted for a heart attack or heart attack symptoms [35].		X	X		
Low Birth Weight Infants	Babies born weighing less than 5.5 pounds [35].		X	X	X	
Asthma Emergency Visits	Patients admitted to the emergency room for asthma or asthma-related distress [35].		X			
Cardiovascular disease					X	
Population Characteristics: Socioeconomic Factors						
Percent Non-White	Percentage of individuals who define themselves as any race/ethnicity besides non-Hispanic White [35,36].	X	X	X	X	X
Percent Low-Income	Percentage of individuals whose household income in the past 12 months is less than two times below the federal poverty level [35,36].	X	X	X	X	X
Less than high school education	Percentage of individuals 25 and older who lack a high school diploma [35,36].	X	X	X	X	X
Linguistic Isolation	Percentage of households in which no one 14 years old and older speaks English "very well", or households which speak only English [35,36].	X	X	X	X	X
Individuals under age 5	Percentage of people under the age of 5 [36].	X		X		?
Individuals over age 64	Percentage of people over the age of 64 [36].	X		X		?
Unemployment	Percentage of the population over the age of 16 that is unemployed and eligible for the labor force. Excludes retirees, students, homemakers, institutionalized persons except prisoners, those not looking for work, and military personnel on active duty [35].		X	X	X	

Indicators	Description	EPA EJSCREEN	Cal EnviroScreen	MD EJSCREEN	WA Env Health Disp Map	OR EJSCREEN (in progress)
Housing Burdened Low Income Households	Percentage of households in a census tract that make less than 80% of the HUD Area Median Family Income and paying greater than 50% of their income to finance housing [35] .		X			
Transportation Expense					X	

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SHEMIA FAGAN
SECRETARY OF STATE

CHERYL MYERS
DEPUTY SECRETARY OF STATE



ARCHIVES DIVISION
STEPHANIE CLARK
DIRECTOR

800 SUMMER STREET NE
SALEM, OR 97310
503-373-0701

PERMANENT ADMINISTRATIVE ORDER

DEQ 14-2021

CHAPTER 340
DEPARTMENT OF ENVIRONMENTAL QUALITY

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CONTACT: Emil Hnidey
503-229-5946
hnidey.emil@deq.state.or.us

700 NE Multnomah St.
Suite 600
Portland, OR 97232

Filed By:
Emil Hnidey
Rules Coordinator

RULES:

340-200-0040, 340-223-0010, 340-223-0020, 340-223-0030, 340-223-0040, 340-223-0050, 340-223-0060, 340-223-0070, 340-223-0080, 340-223-0100, 340-223-0110, 340-223-0120, 340-223-0130

AMEND: 340-200-0040

RULE TITLE: State of Oregon Clean Air Act Implementation Plan

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: Amending rule to reflect adoption of rules that will amend Oregon's State Implementation Plan.

RULE TEXT:

- (1) This implementation plan, consisting of Volumes 2 and 3 of the State of Oregon Air Quality Control Program, contains control strategies, rules and standards prepared by DEQ and is adopted as the State Implementation Plan (SIP) of the State of Oregon under the FCAA, 42 U.S.C.A 7401 to 7671q.
- (2) Except as provided in section (3), revisions to the SIP will be made under the EQC's rulemaking procedures in OAR 340 division 11 of this chapter and any other requirements contained in the SIP and will be submitted to the EPA for approval. The SIP was last modified by the EQC on July 23, 2021.
- (3) Notwithstanding any other requirement contained in the SIP, DEQ may:
 - (a) Submit to the EPA any permit condition implementing a rule that is part of the federally-approved SIP as a source-specific SIP revision after DEQ has complied with the public hearings provisions of 40 C.F.R. 51.102; and
 - (b) Approve the standards submitted by LRAPA if LRAPA adopts verbatim, other than non-substantive differences, any standard that the EQC has adopted, and submit the standards to EPA for approval as a SIP revision.
- (4) Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the EPA. If any provision of the federally approved State Implementation Plan conflicts with any provision adopted by the EQC, DEQ must enforce the more stringent provision.

STATUTORY/OTHER AUTHORITY: ORS 468A, ORS 468.020

STATUTES/OTHER IMPLEMENTED: ORS 468A.035, 468A.135

AMEND: 340-223-0010

RULE TITLE: Purpose

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: Updating purpose statement. Updating CFR citation. Adding SIP note.

RULE TEXT:

OAR 340-223-0020 through 340-223-0130 establish the process and criteria for identifying reductions of pollutants from stationary sources that reduce visibility and contribute to regional haze in Class I areas, for the purpose of maintaining reasonable progress and other requirements associated with Oregon's implementation of the federal regional haze rule in 40 CFR 51.308 (2017).

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

AMEND: 340-223-0020

RULE TITLE: Definitions

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: Removing definitions no longer used and adding three new definitions. Adding SIP note to rule.

RULE TEXT:

The definitions in OAR 340-200-0020 and this rule apply to this division. If the same term is defined in this rule and OAR 340-200-0020, the definition in this rule takes precedence.

(1) "Emissions unit" means any part or activity of a source that emits or has the potential to emit more than 20 tons of any single or combination of round II regional haze pollutants.

(2) "Round II regional haze pollutants" means the pollutants DEQ has identified in round II of regional haze that contribute to visibility impacts in Class I areas, which are sulfur dioxide, particulate matter of a nominal diameter of 10 microns or less, and nitrogen oxides.

(3) "Round II of regional haze" means the combination of information collection, technical demonstrations, control strategies, commitments, rules, orders, and any other actions that make up DEQ's development and implementation of the 2018 through 2028 long-term strategy for reducing haze in Oregon's Class I areas that will be submitted or that have been submitted to EPA as part of the state implementation plan.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

REPEAL: 340-223-0030

RULE TITLE: BART Requirements for the Foster-Wheeler Boiler at the Boardman Coal-Fired Power Plant (Federal Acid Rain Program Facility ORISPL Code 6106)

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: Repealing rule because Boardman Coal Fired Power Plant has been decommissioned.

RULE TEXT:

(1) Emissions limits:

(a) Between July 1, 2011 and December 31, 2020, nitrogen oxide emissions must not exceed 0.23 lb/mmBtu heat input as a 30-day rolling average, provided that:

(A) If the source submitted a complete application for construction and/or operation of pollution control equipment to satisfy the emissions limit in subsection (1)(a) at least eight months prior to the compliance date of July 1, 2011, and the Department has not approved or denied the application by the compliance date, the compliance date is extended until the Department approves or disapproves the application, but may not be extended to a date more than five years from the date that the United States Environmental Protection Agency approves a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR 340-223-0030; and

(B) If it is demonstrated by December 31, 2011 that the emissions limit in subsection (1)(a) cannot be achieved with combustion controls, the Department by order may grant an extension of compliance to July 1, 2013.

(b) Except as provided in section (3) below:

(A) Between July 1, 2014 and June 30, 2018, sulfur dioxide emissions must not exceed 0.40 lb/mmBtu heat input as a 30-day rolling average; and

(B) Between July 1, 2018 and December 31, 2020, sulfur dioxide emissions must not exceed 0.30 lb/mmBtu heat input as a 30-day rolling average.

(c) Between July 1, 2014 and December 31, 2020, particulate matter emissions must not exceed 0.040 lb/mmBtu heat input as determined by compliance source testing.

(d) During periods of startup and shutdown, the following emissions limits apply instead of the limits in subsections (a) through (c):

(A) Sulfur dioxide emissions must not exceed 1.20 lb/mmBtu, as a 3-hour rolling average;

(B) Nitrogen oxide emissions must not exceed 0.70 lb/mmBtu, as a 3-hour rolling average; and

(C) Particulate matter emissions must be minimized to extent practicable pursuant to approved startup and shutdown procedures in accordance with OAR 340-214-0310.

(e) The Foster-Wheeler boiler at the source must permanently cease burning coal by no later than December 31, 2020. Notwithstanding the definition of netting basis in OAR 340-200-0020, and the process for reducing plant site emission limits in OAR 340-222-0043, the netting basis and PSEs for the boiler are reduced to zero upon the date on which the boiler permanently ceases burning coal, and prior to that date the netting basis and PSEs for the boiler apply only to physical changes or changes in the method of operation of the source for the purpose of complying with emission limits applicable to the boiler.

(2) Studies to evaluate compliance with the sulfur dioxide emissions limits in paragraphs (1)(b)(A)–(B), and the potential side effects of compliance with those limits, if required by section (3), must be completed as follows:

(a) A plan to evaluate the sulfur dioxide emissions limit in paragraph (1)(b)(A) must be submitted for Department approval by July 1, 2011, and the results of the evaluation must be submitted to the Department by July 1, 2013;

(b) A plan to evaluate the sulfur dioxide emissions limit in paragraph (1)(b)(B) must be submitted for Department approval by July 1, 2015, and the results of the evaluation must be submitted to the Department by July 1, 2017; and

(c) Each study pursuant to this section (2) must:

(A) Evaluate whether a dry sorbent injection pollution control system is technically infeasible, will prevent compliance with mercury emissions limits under OAR 340-228-0606, or cause a significant air quality impact (as that term is defined in 340-200-0020) for PM10 or PM2.5;

- (B) Evaluate a range of commercially available sorbent materials that could be used in a dry sorbent injection pollution control system to reduce sulfur dioxide emissions;
- (C) Evaluate the potential for significant air quality impacts for PM10 or PM2.5 as follows:
- (i) Perform modeling consistent with the requirements of OAR 340-225-0050(1) with screening meteorological data containing conservative meteorological assumptions; or
- (ii) If modeling with screening meteorological data pursuant to subparagraph (i) demonstrates that significant air quality impacts for PM10 or PM2.5 will occur, perform modeling with site specific meteorological data obtained from the installation of a meteorological monitoring station, including one year of monitoring data for each study. The meteorological monitoring station must be installed, certified, operated and maintained, and the output of the meteorological monitoring station must be recorded, in accordance with a plan approved by the Department;
- (D) Evaluate the use of other sulfur dioxide pollution control systems of equal or lower cost as a dry sorbent injection pollution control system, including but not limited to the use of ultra-low sulfur coal, if the study demonstrates that the use of a dry sorbent injection pollution control system is technically infeasible, will prevent compliance with mercury emissions limits under OAR 340-228-0606, or will cause a significant air quality impact (as that term is defined in OAR 340-200-0020) for PM10 or PM2.5; and
- (E) If applicable, propose an emissions limit for sulfur dioxide based on a 30-day rolling average that exceeds the limits listed in paragraphs (1)(b)(A)–(B), based upon the reduction of sulfur dioxide emissions to the maximum extent feasible through the use of a dry sorbent injection pollution control system or another sulfur dioxide pollution control system of equal or lower cost, including but not limited to the use of ultra-low sulfur coal, provided that the emissions limit may not exceed 0.55 lb/mmBtu heat input as a 30-day rolling average.
- (3) Between July 1, 2014 and December 31, 2020, sulfur dioxide emissions may exceed the limit listed in paragraph (1)(b)(A) or (B), or both, if:
- (a) Studies have been submitted pursuant to section (2);
- (b) Compliance with the applicable emissions limit or limits would:
- (A) Be technically infeasible;
- (B) Prevent compliance with mercury emissions limits under OAR 340-228-0606; or
- (C) Cause a significant air quality impact, as that term is defined in OAR 340-200-0020, for PM10 or PM2.5;
- (c) Sulfur dioxide emissions are otherwise reduced to the maximum extent feasible as described in subsection (2)(c); and
- (d) The source's Oregon Title V Operating Permit is modified to include a federally enforceable permit limit reflecting the requirements of subsection (2)(c), prior to the compliance date for the sulfur dioxide emissions limit in paragraph (1)(b)(A) or (B) that will be exceeded; provided that if the source's Oregon Title V Operating Permit has not been modified prior to the applicable compliance date, sulfur dioxide emissions may exceed the emissions limit in paragraph (1)(b)(A) or (B) if the source submitted a complete application to modify its Oregon Title V Operating Permit at least eight months prior to the applicable compliance date and sulfur dioxide emissions do not exceed the emissions limit proposed in its application (which may not exceed 0.55 lb/mmBtu heat input as a 30-day rolling average).
- (4) Compliance demonstration. Using the procedures specified in section (5) of this rule:
- (a) Compliance with a 30-day rolling average limit must be demonstrated within 180 days of the compliance date specified in section (1) of this rule; and
- (b) Compliance with any 30-day rolling average limit for sulfur dioxide that may be established pursuant to subsection (3)(c) must be demonstrated within 180 days of the compliance date for the limit in paragraph (1)(b)(A) or (B) that is superseded by the emissions limit established pursuant to subsection (3)(c).
- (5) Compliance Monitoring and Testing.
- (a) Compliance with the emissions limits in subsections (1)(a), (b) and (d)(A)–(B), and with any emissions limit for sulfur dioxide that may be established pursuant to subsection (3)(c), must be determined with a continuous emissions monitoring system (CEMS) installed, operated, calibrated, and maintained in accordance with the acid rain monitoring requirements in 40 CFR Part 75 as in effect on December 9, 2010.
- (A) The hourly emissions rate in terms of lb/mmBtu heat input must be recorded each operating hour, including periods

of startup and shutdown.

(B) The daily average emissions rate must be determined for each boiler operating day using the hourly emissions rates recorded in (A), excluding periods of startup and shutdown.

(C) 30-day rolling averages must be determined using all daily average emissions rates recorded in (B) whether or not the days are consecutive.

(D) The daily average emission rate is calculated for any calendar day in which the boiler combusts any fuel. An operating hour means a clock hour during which the boiler combusts any fuel, either for part of the hour or for the entire hour.

(b) Compliance with the particulate matter emissions limit in subsection (1)(c) must be determined by EPA Methods 5 and 19 as in effect on December 9, 2010.

(A) An initial particulate matter source test must be conducted by January 1, 2015.

(B) Subsequent tests must be conducted in accordance with a schedule specified in the source's Oregon Title V Operating Permit, but not less than once every 5 years.

(C) All testing must be performed in accordance with the Department's Source Sampling Manual as in effect on December 9, 2010. [NOTE: DEQ manuals are published with OAR 340-200-0035.]

(6) Notifications and Reports.

(a) The Department must be notified in writing within 7 days after any control equipment (including combustion controls) used to comply with emissions limits in section (1), and with any emissions limit for sulfur dioxide that may be established pursuant to subsection (3)(c), begins operation.

(b) For nitrogen oxide and sulfur dioxide emissions limits in section (1) based on a 30-day rolling average, a compliance status report, including CEMS data, must be submitted within 180 days of the compliance dates specified in section (1).

(c) For any sulfur dioxide emissions limit that may be established pursuant to subsection (3)(c), a compliance status report, including CEMS data, must be submitted within 180 days of the compliance date for the limit in paragraph (1)(b)(A) or (B) that is superseded by the emissions limit established pursuant to subsection (3)(c).

(d) For particulate matter, a compliance status report, including a source test report, must be submitted within 60 days of completing the initial compliance test and all subsequent tests as specified in subsection (5)(b).

(e) The Department must be notified in writing within 7 days of the date upon which the boiler permanently ceases burning coal.

(7) The following provisions of this rule constitute BART requirements for the Foster-Wheeler Boiler: subsection (1)(a), paragraph (1)(b)(A), subsections (1)(c)–(e), (2)(a) and (2)(c), and sections (3)–(6).

(8) The following provisions of this rule constitute additional requirements pursuant to the federal Regional Haze Rules under 40 CFR § 51.308(e) for the Foster-Wheeler Boiler: paragraph (1)(b)(B), subsections (2)(b) and (2)(c), and sections (3)–(6).

[NOTE: View a PDF of EPA Methods by clicking on "Tables" link below.]

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

REPEAL: 340-223-0040

RULE TITLE: Federally Enforceable Permit Limits

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: Repealing rule because the Boardman Coal Fired Power Plant has been decommissioned.

RULE TEXT:

(1) A BART-eligible source that would be subject to BART may accept a federally enforceable permit limit or limits that reduces the source's emissions and prevents the source from being subject to BART.

(2) Any BART-eligible source that accepts a federally enforceable permit limit or limits as described in section (1) to prevent the source from being subject to BART, and that subsequently proposes to terminate its federally enforceable permit limit or limits, and that as a result will increase its emissions and become subject to BART, must submit a BART analysis to the Department and install BART as determined by the Department prior to terminating the federally enforceable permit limit or limits.

(3) The Foster-Wheeler boiler at The Amalgamated Sugar Company plant in Nyssa, Oregon (Title V permit number 23-0002) is a BART-eligible source, and air quality dispersion modeling demonstrates that it would be subject to BART while operating. However, it is not operating as of December 9, 2010, and therefore is not subject to BART. Prior to resuming operation, the owner or operator of the source must either:

(a) Submit a BART analysis and install BART as determined by the Department by no later than five years from the date that the United States Environmental Protection Agency approves a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR chapter 340, division 223, or before resuming operation, whichever is later; or

(b) Obtain and comply with a federally enforceable permit limit or limits assuring that the source's emissions will not cause the source to be subject to BART.

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

REPEAL: 340-223-0050

RULE TITLE: Alternative Regional Haze Requirements for the Foster-Wheeler Boiler at the Boardman Coal-Fired Power Plant (Federal Acid Rain Program Facility ORISPL Code 6106)

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: Repealing rule because the Boardman Coal Fired Power Plant has been decommissioned.

RULE TEXT:

(1) The owner and operator of the Foster-Wheeler boiler at the Boardman coal-fired power plant may elect to comply with OAR 340-223-0060 and 340-223-0070, or with 340-223-0080, in lieu of complying with OAR 340-223-0030, if the owner or operator provides written notification to the Director by no later than July 1, 2014. The written notification must identify which rule of the two alternatives the owner or operator has chosen to comply with. The owner or operator may not change its chosen method of compliance after July 1, 2014.

(2) Compliance with OAR 340-223-0080 in lieu of complying with 340-223-0030 is allowed only if the Foster-Wheeler boiler at the Boardman coal-fired power plant permanently ceases to burn coal within five years of the approval by the United States Environmental Protection Agency (EPA) of the revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR chapter 340, division 223. If the boiler has not permanently ceased burning coal by that date, the owner and operator shall be liable for violating OAR 340-223-0030 for each day beginning July 1, 2014 on which the owner or operator did not comply with OAR 340-223-0030. This liability shall include, but is not limited to, civil penalties pursuant to OAR chapter 340, division 12, which includes penalties for the economic benefit of operating the facility without the required pollution controls.

(3) If, by December 31, 2011, the EPA fails to approve a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR 340-223-0030 (concerning BART requirements based upon permanently ceasing the burning of coal in the Foster-Wheeler Boiler by December 31, 2020), or 340-223-0060 and 340-223-0070, then the compliance date of July 1, 2014 in 340-223-0060(2)(b) and (c) (sulfur dioxide and particulate matter emissions limits) is delayed until three years from the date of EPA approval.

(4) Notwithstanding sections (1) and (3), if the EPA approves a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR 340-223-0030 (concerning BART requirements based upon permanently ceasing the burning of coal in the Foster-Wheeler Boiler by December 31, 2020), then OAR 340-223-0060 and 340-223-0070 are repealed, compliance with 340-223-0060 and 340-223-0070 in lieu of complying with 340-223-0030 is no longer an alternative, and compliance with 340-223-0030 or 340-223-0080 is required.

NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EOC adopted under OAR 340-200-0040.

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

REPEAL: 340-223-0060

RULE TITLE: Alternative BART Requirements for the Foster-Wheeler Boiler at the Boardman Coal-Fired Power Plant (Federal Acid Rain Program Facility ORISPL Code 6106) Based Upon Operation Until 2040 or Beyond

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: Repealing rule because the Boardman Coal Fired Power Plant has been decommissioned.

RULE TEXT:

- (1) Subject to OAR 340-223-0050, the owner or operator of the Foster-Wheeler boiler at the Boardman coal-fired power plant may elect to comply with this rule and 340-223-0070 in lieu of compliance with OAR 340-223-0030.
- (2) Emissions limits:
- (a) On and after July 1, 2011, nitrogen oxide emissions must not exceed 0.28 lb/mmBtu heat input as a 30-day rolling average and 0.23 lb/mmBtu heat input as a 12-month rolling average.
- (A) If it is demonstrated by July 1, 2012 that the emissions limits in (a) cannot be achieved with combustion controls, the Department may grant an extension of compliance to July 1, 2014.
- (B) If an extension is granted, on and after July 1, 2014 the nitrogen oxide emissions must not exceed 0.19 lb/mm Btu heat input as a 30-day rolling average, and the emissions limits of 0.28 lb/mmBtu heat input as a 30-day rolling average and 0.23 lb/mmBtu heat input as a 12-month rolling average no longer apply.
- (b) On and after July 1, 2014, sulfur dioxide emissions must not exceed 0.12 lb/mmBtu heat input as a 30-day rolling average.
- (c) On and after July 1, 2014, particulate matter emissions must not exceed 0.012 lb/mmBtu heat input as determined by compliance source testing.
- (d) During periods of startup and shutdown, the following emissions limits apply instead of the limits in subsections (2)(a) through (c):
- (A) Sulfur dioxide emissions must not exceed 1.20 lb/mmBtu, as a 3-hour rolling average;
- (B) Nitrogen oxide emissions must not exceed 0.70 lb/mmBtu, as a 3-hour rolling average; and
- (C) Particulate matter emissions must be minimized to extent practicable pursuant to approved startup and shutdown procedures in accordance with OAR 340-214-0310.
- (3) Compliance demonstration. Using the procedures specified in section (4) of this rule:
- (a) Compliance with a 30-day rolling average limit must be demonstrated within 180 days of the compliance date specified in section (2) of this rule.
- (b) Compliance with a 12-month rolling average must be demonstrated within 12 months of the compliance date specified in section (2) of this rule.
- (4) Compliance Monitoring and Testing.
- (a) Compliance with the emissions limits in (2)(a), (b) and (d)(A)-(B) must be determined with a continuous emissions monitoring system (CEMS) installed, operated, calibrated, and maintained in accordance with the acid rain monitoring requirements in 40 CFR Part 75 as in effect on December 9, 2010.
- (A) The hourly emissions rate in terms of lb/mmBtu heat input must be recorded each operating hour, including periods of startup and shutdown.
- (B) The daily average emissions rate must be determined for each boiler operating day using the hourly emissions rates recorded in (A), excluding periods of startup and shutdown.
- (C) 30-day rolling averages must be determined using all daily average emissions rates recorded in (B) whether or not the days are consecutive.
- (D) 12-month rolling averages must be determined using calendar month averages based on all daily averages during the calendar month.
- (b) Compliance with the particulate matter emissions limit in (2)(c) must be determined by EPA Methods 5 and 19 as in effect on December 9, 2010.
- (A) An initial test must be conducted by January 1, 2015.

(B) Subsequent tests must be conducted in accordance with a schedule specified in the Oregon Title V Operating Permit, but not less than once every 5 years.

(C) All testing must be performed in accordance with the Department's Source Sampling Manual as in effect on December 9, 2010. [NOTE: DEQ manual is published with OAR 340-200-0035.]

(7) Notifications and Reports.

(a) The Department must be notified in writing within 7 days after any control equipment (including combustion controls) used to comply with emissions limits in section (2) begin operation.

(b) For nitrogen oxide and sulfur dioxide limits based on a 30-day rolling average, a compliance status report, including CEMS data, must be submitted within 180 days of the compliance dates specified in section (2).

(c) If applicable, a compliance status report for the 12-month rolling average nitrogen oxide limit in section (2)(a) must be submitted by August 1, 2012.

(d) For particulate matter, a compliance status report, including a source test report, must be submitted within 60 days of completing the initial compliance test specified in section (4)(b).

[NOTE: View a PDF of EPA Methods by clicking on "Tables" link below.]

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

REPEAL: 340-223-0070

RULE TITLE: Additional NOx Requirements for the Foster-Wheeler Boiler at the Boardman Coal-Fired Power Plant (Federal Acid Rain Program Facility ORISPL Code 6106) Based Upon Operation Until 2040 or Beyond

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: Repealing rule because the Boardman Coal Fired Power Plant has been decommissioned.

RULE TEXT:

- (1) Subject to OAR 340-223-0050, the owner or operator of the Foster-Wheeler boiler at the Boardman coal-fired power plant may elect to comply with this rule and 340-223-0060 in lieu of compliance with OAR 340-223-0030.
- (2) On and after July 1, 2017, nitrogen oxide emissions must not exceed 0.070 lb/mmBtu heat input as a 30-day rolling average, excluding periods of startup and shutdown.
- (3) Compliance with the nitrogen oxide emissions limit in section (2) must be determined with a continuous emissions monitoring system in accordance with OAR 340-223-0060(3)-(4).
- (4) The Department must be notified in writing within 7 days after any control equipment used to comply with the emissions limit in section (2) begins operation.
- (5) A compliance status report, including CEMS data, must be submitted by January 1, 2018.

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

REPEAL: 340-223-0080

RULE TITLE: Alternative Requirements for the Foster-Wheeler Boiler at the Boardman Coal-Fired Power Plant (Federal Acid Rain Program Facility ORISPL Code 6106) Based Upon Permanently Ceasing the Burning of Coal Within Five Years of EPA Approval of the Revision to the Oregon Clean Air Act State Implementation Plan Incorporating OAR Chapter 340, Division 223.

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: Repealing rule because the Boardman Coal Fired Power Plant has been decommissioned.

RULE TEXT:

(1) Subject to OAR 340-223-0050, the owner or operator of the Foster-Wheeler boiler at the Boardman coal-fired power plant may elect to comply with this rule in lieu of compliance with OAR 340-223-0030 if the boiler permanently ceases to burn coal within five years of the approval by the United States Environmental Protection Agency (EPA) of the revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR chapter 340, division 223.

(2) Emissions limits:

(a) Beginning July 1, 2011, nitrogen oxide emissions must not exceed 0.23 lb/mmBtu heat input as a 30-day rolling average, provided that:

(A) If the source submitted a complete application for construction and/or operation of pollution control equipment to satisfy the emissions limit in subsection (2)(a) at least eight months prior to the compliance date of July 1, 2011, and the Department has not approved or denied the application by the compliance date, the compliance date is extended until the Department approves or disapproves the application, but may not be extended to a date more than five years from the date that the EPA approves a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR 340-223-0030; and

(B) If it is demonstrated by December 31, 2011 that the emissions limit in subsection (2)(a) cannot be achieved with combustion controls, the Department by order may grant an extension of compliance to July 1, 2013.

(b) During periods of startup and shutdown, the emissions limit in subsection (2)(a) does not apply, and nitrogen oxide emissions must not exceed 0.70 lb/mmBtu, as a 3-hour rolling average.

(c) The Foster-Wheeler boiler at the source must permanently cease burning coal by no later than five years after the approval by the EPA of the revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR chapter 340, division 223. Notwithstanding the definition of netting basis in OAR 340-200-0020, and the process for reducing plant site emission limits in OAR 340-222-0043, the netting basis and PSEs for the boiler are reduced to zero upon the date on which the boiler permanently ceases burning coal, and prior to that date the netting basis and PSEs for the boiler apply only to physical changes or changes in the method of operation of the source for the purpose of complying with emission limits applicable to the boiler.

(3) Compliance demonstration. Using the procedures specified in section (4) of this rule, compliance with a 30-day rolling average limit must be demonstrated within 180 days of the compliance date specified in section (2) of this rule.

(4) Compliance Monitoring and Testing. Compliance with the emissions limit in subsection (2)(a) must be determined with a continuous emissions monitoring system (CEMS) installed, operated, calibrated, and maintained in accordance with the acid rain monitoring requirements in 40 CFR Part 75 as in effect on December 9, 2010.

(a) The hourly emission rate in terms of lb/mmBtu heat input must be recorded each operating hour, including periods of startup and shutdown.

(b) The daily average emission rate must be determined for each boiler operating day using the hourly emission rates recorded in (a), excluding periods of startup and shutdown.

(c) 30-day rolling averages must be determined using all daily average emissions rates recorded in (b) whether or not the days are consecutive.

(d) The daily average emission rate is calculated for any calendar day in which the boiler combusts any fuel. An operating hour means a clock hour during which the boiler combusts any fuel, either for part of the hour or for the entire hour.

(5) Notifications and Reports

(a) The Department must be notified in writing within 7 days after any control equipment (including combustion controls) used to comply with emissions limit in subsection (2)(a) begin operation.

(b) A compliance status report, including CEMS data, must be submitted within 180 days of the compliance date specified in section (2).

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

ADOPT: 340-223-0100

RULE TITLE: Screening Methodology for Sources for Round II of Regional Haze

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: New rule for Screening Methodology for Sources for Round II of Regional Haze

RULE TEXT:

(1) The following sources are subject to the requirements of round II of regional haze, contained in OAR 340-223-0110 to OAR 340-223-0130:

(a) Stationary sources with a Title V operating permit; and

(b) That have a Q/d, as determined as provided in subsection (2), of greater than or equal to 5.00.

(2) To determine Q/d, DEQ shall calculate:

(a) A "Q" factor by adding the plant site emission limits for round II regional haze pollutants as stated in the permit for that source as of December 31, 2017;

(b) A "d" factor by determining the source's physical distance to the closest Class 1 area in Oregon or an adjacent state in kilometers, measured in a straight line from the source to the nearest boundary of a Class I area; and

(c) The ratio of Q divided by d for that source.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

ADOPT: 340-223-0110

RULE TITLE: Options for Compliance with Round II of Regional Haze

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: New rule for Options for Compliance with Round II of Regional Haze

RULE TEXT:

(1) All sources subject to the requirements of round II of regional haze, as determined in OAR 340-223-0100(1), must submit a four factor analysis as required under OAR 340-223-0120(1) and install all controls determined by DEQ to be cost effective for controlling round II regional haze pollutants on the fastest timeline determined by DEQ to be practicable and no later than July 31, 2026 based on the agency record at the time of its decision and in an order issued under OAR 340-223-0130(1) following DEQ's adjustment and review of the four factor analysis.

(2) DEQ may, but is not required to, offer alternative compliance with subsection (1) by entering into a stipulated agreement and final order under which a source agrees to take one of the actions identified in paragraphs (b)(A) through (E). A stipulated agreement and final order shall identify the action that shall be taken by the source and the timeline for the action, which shall be the fastest timeline determined by DEQ to be practicable as well any monitoring, recordkeeping, reporting, or other requirements that DEQ determines are necessary to ensure actions taken by the source are enforceable.

(a) If DEQ chooses not to enter into a stipulated agreement and final order under this subsection (2), a source shall comply with subsection (1).

(b) DEQ may enter into a stipulated agreement and final order in which a source agrees to:

(A) Accept federally enforceable reductions of combined plant site emission limits of round II regional haze pollutants to bring the source's Q/d below 5.00. Notwithstanding OAR 340-222-0040, a source may take a PSEL reduction below the generic PSEL to achieve an overall PSEL of round II regional haze pollutants below a Q/d of 5.00. A source's Q/d will be considered to be brought below 5.00 when Q/d is below 5.00 using the calculation in OAR 340-223-0100(2), except that the Q factor shall be calculated by adding the plant site emission limits for regional haze pollutants as stated in the stipulated agreement and final order;

(B) Install controls identified by the source in a four factor analysis as cost effective for that source for reducing round II regional haze pollutants. DEQ must agree that the controls identified will result in the greatest cost effective emissions reduction at the identified emissions unit and DEQ must establish a timeline for installation of those controls that is the fastest practicable timeline for installation of the identified controls and that is no later than July 31, 2026;

(C) Install controls or reduce emissions for round II regional haze pollutants that DEQ determines, in its sole discretion, provide equivalent emissions reductions to controls that would be identified as cost effective for that source following the adjustment and review of a four factor analysis. DEQ must establish a timeline for installation of those controls that is the fastest practicable timeline for installation of the identified controls and that is no later than July 31, 2026;

(D) Maintain controls that the source has already installed to control round II regional haze pollutants or maintain reduced emissions of regional haze pollutants that DEQ determines, in its sole discretion, have provided and will continue to provide equivalent emissions reductions to controls that would be identified as cost effective for that source following adjustment and review of a four factor analysis; or

(E) Replace an emissions unit with a new emissions unit that meets the emission limits and requirements of the most recent applicable standard in place at the time of the permitting of the new emissions unit. DEQ must establish a timeline for installation of the new emissions unit that is the fastest practicable timeline for installation of the new emissions unit and that is no later than July 31, 2031.

(c) The stipulated agreement and final order shall be incorporated into the source's Title V permit or upon permit renewal.

(3) If a source fails to take action as required under subsection (1) and DEQ has not entered into a stipulated agreement and final order with that source under subsection (2), DEQ shall complete a four factor analysis for that source, and the source shall install all controls to control round II regional haze pollutants determined by DEQ to be cost effective and

based on the fastest timeline determined by DEQ to be practicable and no later than July 31, 2026 in an order issued under OAR 340-223-0130 based on information compiled by DEQ in the agency record.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

ADOPT: 340-223-0120

RULE TITLE: Four Factor Analysis

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: New rule for Four Factor Analysis for regional haze.

RULE TEXT:

(1) A four factor analysis is an emissions control analysis that shall include:

(a) All emissions units for the source; and

(b) Information sufficient to determine, at each emissions unit:

(A) The costs of any and all controls that could be used to reduce round II regional haze pollutants, including an estimate of the cost per ton of each round II regional haze pollutant reduced and all control technologies in use by similar emission units, either at that source or at other sources or locations;

(B) How soon the source believes it would be practicable to install to install controls identified under paragraph (A);

(C) The energy and non-air quality environmental impacts of installing controls identified under paragraph (A); and

(D) The remaining useful life of each emissions unit.

(2) If DEQ determines that the four factor analysis is inaccurate, inadequate, or insufficient, DEQ may request in writing additional information from the source and may adjust the four factor analysis based on any information submitted or may adjust the four factor analysis based on other information DEQ determines to be accurate, adequate, and sufficient. DEQ shall place any information submitted or relied on under this subsection into its record.

(3) DEQ may adjust information in the four factor analysis to assist DEQ in conducting a consistent review of submittals. DEQ shall place any information relied on under this subsection into its record.

(4) DEQ shall review the four factor analysis and any additional information that DEQ has placed in the agency record under subsections (2) and (3) to determine which controls, if any, would be cost effective to reduce round II regional haze pollutants for each emissions unit at a source and to determine what is the fastest practicable timeline for installation of the identified controls. In no event shall the timeline determined to be practicable be later than July 31, 2026.

(a) A control is cost effective if DEQ determines that the control will result in a cost of \$10,000 or less per ton of reductions for any single or combination of round II regional haze pollutants.

(b) If multiple controls are cost effective at an emissions unit, DEQ shall identify as cost effective the control that will result in the greatest emissions reduction at the emissions unit.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

ADOPT: 340-223-0130

RULE TITLE: Final Orders Ordering Compliance with Round II of Regional Haze

NOTICE FILED DATE: 05/28/2021

RULE SUMMARY: New rule for Final Orders Ordering Compliance with Round II of Regional Haze

RULE TEXT:

(1) For all sources identified in OAR 340-223-0100(1) that do not enter into a stipulated agreement and final order under OAR 340-223-0110(2), DEQ shall issue a final order no later than August 9, 2021, identifying:

(a) The action that shall be taken by the source pursuant to OAR 340-223-0110(1), as well any monitoring, recordkeeping, reporting, or other requirements that DEQ determines are necessary to ensure any controls or emission limits are actually implemented and are enforceable.

(b) The timeline under which the source shall complete the action in paragraph (a).

(2) The order issued under subsection (1) shall:

(a) Be a contested case order issued in compliance with ORS chapter 183;

(b) Be incorporated into the source's Title V permit in compliance with OAR 340-218-0200(1)(a)(A) or upon permit renewal.

(3) Notwithstanding OAR 340-011-0530(1), a party wishing to request a contested case hearing must do so in writing within ten days of the date of service of the order issued under subsection (1).

(4) In accordance with OAR 340-011-0530(2), due to the complexity of the regional haze program, the request for hearing based on an order issued under subsection (1) must include a written response that admits or denies all factual matters alleged in the notice, and alleges any and all affirmative defenses and the reasoning in support thereof. Due to the complexity, factual matters not denied will be considered admitted, and failure to raise a defense will be a waiver of the defense. New matters alleged in the request for hearing are denied by DEQ unless admitted in subsequent stipulation.

(5) DEQ shall refer all hearing requests received under subsection (3) to the Office of Administrative Hearings within five business days of receipt of the request. The cases shall be heard on an expedited timeline to the greatest extent practicable. All reasonable efforts shall be made for DEQ or the EQC to issue a final order within 90 days of receipt of the hearing request.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

STATUTORY/OTHER AUTHORITY: ORS 468, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025