

Appendix D  
Noise Measurements

D-1

Sound Level Measurement Data

SLM1: 72 Bluff Road east of I-5 in Washington										
Date	Time	Leq	Lmax	Lmin	L2	L8	L10	L25	L50	L90
18-Apr	10:00:00	66.5	78.7	60	69.7	68.4	68.1	67.2	66.2	64.2
18-Apr	11:00:00	66.6	75.4	61.2	70.2	68.5	68.3	67.2	66.2	64.2
18-Apr	12:00:00	66	79.4	59.8	68.9	67.9	67.7	66.8	65.8	63.5
18-Apr	13:00:00	65.8	71.6	57.6	68.8	67.8	67.6	66.7	65.5	63.3
18-Apr	14:00:00	66.5	75.3	59.3	70.7	68.6	68.2	67.1	66.1	63.9
18-Apr	15:00:00	66	77.1	58.7	69	68	67.8	66.8	65.7	63.4
18-Apr	16:00:00	65	76.1	58.8	67.8	66.8	66.7	65.7	64.7	62.7
18-Apr	17:00:00	64.3	70.6	58.7	67.1	66.2	66	65.1	64	61.9
18-Apr	18:00:00	63.6	71.2	57.3	66.6	65.6	65.4	64.5	63.4	61.2
18-Apr	19:00:00	63.6	71	56.3	67.4	65.8	65.6	64.4	63.2	61
18-Apr	20:00:00	63.8	72.4	55.9	69.6	66	65.7	64.4	63	60.3
18-Apr	21:00:00	62.6	71.1	53.2	66.8	64.9	64.6	63.4	62.1	59.2
18-Apr	22:00:00	62.2	79	51.9	66.9	64.6	64.3	62.9	61.5	58.4
18-Apr	23:00:00	61.2	70.5	47.4	65.7	64	63.8	62.4	60.6	56.3
19-Apr	0:00:00	61.5	70.9	50.3	66	64.4	64	62.5	60.8	56.7
19-Apr	1:00:00	61.6	73.4	45.2	66.9	64.5	64	62.4	60.7	55.4
19-Apr	2:00:00	61	74.4	46.4	66.8	63.9	63.6	61.9	60	54.4
19-Apr	3:00:00	61.6	70	46.5	65.9	64.7	64.4	62.9	61.2	56.3
19-Apr	4:00:00	62.4	69.7	49.7	66.6	65.1	64.8	63.4	61.8	58.4
19-Apr	5:00:00	63.9	72.9	55.1	66.9	66.1	65.9	65	63.7	60.6
19-Apr	6:00:00	66.3	73.6	58.5	71.6	69.4	68.7	66.7	65.2	63
19-Apr	7:00:00	65.7	70.5	60.3	68.3	67.5	67.3	66.4	65.4	63.5
19-Apr	8:00:00	66.2	74.1	59.8	71.1	68.4	68.1	66.8	65.7	63.6
19-Apr	9:00:00	65.7	79.8	60.4	68.6	67.5	67.3	66.5	65.5	63.4
19-Apr	10:00:00	66.1	87	58	69.8	67.9	67.7	66.6	65.5	63.4
19-Apr	11:00:00	65.7	70.9	59.6	68.6	67.7	67.5	66.6	65.5	63.3
19-Apr	12:00:00	65.9	73.8	56.5	70.5	67.9	67.7	66.6	65.4	63.1
19-Apr	13:00:00	65.5	75	59	68.8	67.5	67.3	66.4	65.3	63.2
19-Apr	14:00:00	65.7	74.7	58.7	69.1	67.9	67.7	66.5	65.3	63
19-Apr	15:00:00	65.2	71.9	58.7	68.8	67.3	67	65.9	64.8	62.7
19-Apr	16:00:00	64.6	74.5	55.2	68	66.8	66.5	65.4	64.3	62
19-Apr	17:00:00	64.6	74.9	55.6	70.5	66.9	66.6	65.2	63.7	61



**SLM2: At Camp Kalama, located at 5055 N. Meeker Drive**

Date	Time	Leq	Lmax	Lmin	L2	L8	L10	L25	L50	L90
18-Apr	10:00:00	71.6	81.4	61	76.1	74.8	74.5	73.1	70.8	66.6
18-Apr	11:00:00	71.6	82.9	62.1	76	74.7	74.4	72.7	70.8	67
18-Apr	12:00:00	71.3	86.5	60.2	76	74.6	74.3	72.6	70.2	66.4
18-Apr	13:00:00	70.7	80	59.6	75.5	74	73.7	71.9	69.7	66.3
18-Apr	14:00:00	71.5	86.9	61.8	76	74.6	74.3	72.6	70.4	67.1
18-Apr	15:00:00	71.3	88.3	62	75.8	74.2	73.9	72.3	70.4	67.3
18-Apr	16:00:00	70.8	86.6	61	75	73.6	73.3	71.7	69.9	67
18-Apr	17:00:00	70.4	81.9	59.1	75.2	73.6	73.2	71.4	69.4	66
18-Apr	18:00:00	70.2	79.8	59.5	74.9	73.6	73.2	71.2	69.1	65.4
18-Apr	19:00:00	70.2	80.9	53.2	74.9	73.4	73	71.3	69.3	65.9
18-Apr	20:00:00	69.8	78.6	56.6	74.9	73.4	73	71.1	68.6	64.2
18-Apr	21:00:00	68.4	78.3	52.3	74.1	72.5	72.1	69.8	66.6	61.3
18-Apr	22:00:00	67.9	77.6	52.5	73.9	72.1	71.7	69.1	65.9	60.4
18-Apr	23:00:00	67.6	78.4	45.2	74.1	72.2	71.8	68.9	65.1	57.5
19-Apr	0:00:00	67.7	77.5	45.3	74.1	72.3	71.9	69.2	65.1	57.2
19-Apr	1:00:00	66.9	79.2	45.6	73.7	71.7	71.3	68.1	64.2	55.5
19-Apr	2:00:00	66.3	78.1	42.1	73.3	71.4	70.9	67.3	62.7	52.1
19-Apr	3:00:00	67.7	82.3	42.5	74.3	72.5	72	69.1	64.5	54.1
19-Apr	4:00:00	68.4	79.9	44.4	74.6	72.7	72.3	70	66.1	59
19-Apr	5:00:00	70.1	80.4	50.8	75.5	73.9	73.6	71.5	68.7	62.7
19-Apr	6:00:00	71.4	78.6	60.6	76	74.7	74.4	72.7	70.5	66.6
19-Apr	7:00:00	72.1	88	59.8	76.5	75	74.7	73.1	71.3	67.6
19-Apr	8:00:00	71.6	82.6	60.3	76.2	74.8	74.6	72.8	70.6	67.1
19-Apr	9:00:00	71.7	83.5	61.5	76.3	74.9	74.6	73	70.8	66.6
19-Apr	10:00:00	71.6	83.7	61.1	76.4	74.9	74.6	72.9	70.6	66.6
19-Apr	11:00:00	71.2	85.6	61.6	75.9	74.4	74.1	72.4	70.2	66.4
19-Apr	12:00:00	70.9	87.9	59.5	75.5	74	73.7	72.1	69.9	66.4
19-Apr	13:00:00	70.8	81.4	60.5	75.5	74	73.8	72.1	69.8	66.3
19-Apr	14:00:00	71	87.4	60.6	75.9	74.1	73.8	72	69.8	66.2
19-Apr	15:00:00	70.6	83.5	60	75.2	73.7	73.4	71.7	69.6	66.4
19-Apr	16:00:00	71.2	86.1	63.1	75.6	73.9	73.6	72	70.4	67.5
19-Apr	17:00:00	71.7	83.8	63.3	75.7	74.4	74	72.7	71.1	68.1
19-Apr	18:00:00	71	79.3	59.5	75.7	74	73.7	72	70.1	66.8
19-Apr	19:00:00	70.5	81	59.2	75.6	73.8	73.4	71.6	69.5	65.4
19-Apr	20:00:00	70.1	79.2	59	74.9	73.4	73.1	71.4	69.2	65.1
19-Apr	21:00:00	69.2	78.2	56.2	74.4	73	72.6	70.5	67.8	63.4



SLM3: 33182 School Street in Prescott, Oregon										
Date	Time	Leq	Lmax	Lmin	L1	L2	L10	L25	L50	L90
18-Apr	8:00:00	53.1	80.8	44.5	62.2	57.2	51.7	50	48.5	46.3
18-Apr	9:00:00	50	70	43.9	57	56	52.7	50.1	47.9	46.1
18-Apr	10:00:00	55.9	78.4	43.6	64.9	62.9	55.4	50.6	48.8	46.9
18-Apr	11:00:00	50.7	70.7	43	57.9	56	52.4	50.6	48.7	46.2
18-Apr	12:00:00	50.9	75.1	39.4	64.3	54.4	46.8	44.9	43.7	42.1
18-Apr	13:00:00	48.9	74.5	41.8	54.9	53.7	50.2	48.4	46.9	45
18-Apr	14:00:00	51	73.4	43.2	58	57.5	53.5	50.8	48.9	46.5
18-Apr	15:00:00	47.9	61.9	44	52.4	51.6	49.7	48.5	47.4	46
18-Apr	16:00:00	47.9	64.6	42.6	55	53.4	49.2	47.9	46.9	45.3
18-Apr	17:00:00	47.2	59.7	42.4	53.1	51.8	48.7	47.5	46.5	44.7
18-Apr	18:00:00	47	60.7	40.9	55.1	54.2	49.9	46.8	44.8	42.7
18-Apr	19:00:00	54.7	70.5	41.7	65.8	64	56.4	53.2	51.5	45.1
18-Apr	20:00:00	55	61.9	48.7	59.6	59	57.6	56.1	54.2	51.9
18-Apr	21:00:00	54.5	64.4	48.9	62	60.9	56.6	54.1	53.1	51.4
18-Apr	22:00:00	51	60	43.6	57.9	57.2	53.3	51.7	49.9	46.5
18-Apr	23:00:00	51.3	61.4	42.7	59.8	59	53.7	51.3	49.4	46.8
19-Apr	0:00:00	50.2	59	41.8	56	54.9	52.8	51.2	49.5	45.4
19-Apr	1:00:00	49.1	57.7	43.1	53.9	53.3	51.6	50	48.3	45.8
19-Apr	2:00:00	48.3	57.2	43	52.8	52.4	50.8	49.3	47.6	45.3
19-Apr	3:00:00	50.1	61.9	42.1	58.4	57.4	51.9	50	48.8	44.9
19-Apr	4:00:00	50.2	56.3	46.3	52.9	52.6	51.6	50.9	50.1	48.8
19-Apr	5:00:00	50.9	59.4	46.4	55.5	54.9	53.7	52.1	49.9	48.1
19-Apr	6:00:00	52.9	61.3	47	58.5	57.9	55.9	53.7	51.6	49.2
19-Apr	7:00:00	60.3	88.1	47	74.6	67	53.8	52	51	49.1
19-Apr	8:00:00	52.3	64.7	47.4	57.7	56.8	54.9	53.5	50.9	48.9
19-Apr	9:00:00	51.2	72.4	47.5	56.5	54.9	52.6	51.4	50.5	49.2
19-Apr	10:00:00	52	72.3	45.9	57.7	56.9	54.5	52.7	50.9	48.1
19-Apr	11:00:00	61.3	83.6	44.3	76.3	73.4	54.6	50.7	48.4	46.4
19-Apr	12:00:00	49.5	66.5	44.9	55.8	55.1	51.8	49.6	48.3	46.6
19-Apr	13:00:00	49.6	64	43.9	57.3	56.5	52.1	49.4	48	46.1
19-Apr	14:00:00	50.7	66.8	43.4	58.8	57.6	54.2	51	48.4	46.1
19-Apr	15:00:00	50.2	63	45.1	57.1	55.5	52	50.5	49.2	47.3
19-Apr	16:00:00	49.6	67.3	42.7	58.7	56.7	51.4	49.2	47.6	45
19-Apr	17:00:00	47.6	67.3	41.7	54.9	52.4	48.9	47.2	45.9	44.1
19-Apr	18:00:00	54.3	84.5	41.6	62.5	58.4	51.9	48.4	46.4	44.1
19-Apr	19:00:00	45.8	64.7	39.3	52.8	51.2	48	46.3	44.6	42



D-2

Equipment Octave Band Sound Power Level Data



D-2  
Equipment Octave Band Sound Power Levels

Equipment	Octave Bands (Hz)									Total	
	31.5	63	125	250	500	1000	2000	4000	8000	A-Wght	Linear
<b>Gasification</b>											
ASU Building	112	112	111	109	109	111	115	114	110	120	121
ASU Cooling Tower	120	118	112	111	106	103	101	103	102	111	121
ASU Cooling Tower Fan	110	110	109	106	100	100	95	93	85	105	115
ASU Cooling Tower Pump	97	98	99	101	101	104	101	97	91	108	109
ASU Building Stacks	124	111	112	108	103	94	78	79	65	104	125
VO Stack	124	111	112	108	103	94	78	79	65	104	125
Enclosed Flare	124	126	115	105	104	104	106	104	99	112	128
Sulfur Recovery Unit	98	99	100	102	102	105	102	98	92	108	110
SynGas Compressor	92	92	91	89	89	91	95	94	90	100	102
TailGas Compressor	92	92	91	89	89	91	95	94	90	100	102
SynGas Burner	118	120	109	99	99	98	101	98	93	106	122
TailGas Burner	118	120	109	99	99	98	101	98	93	106	122
Blowers	104	101	100	96	95	92	88	85	81	97	107
<b>Power Generation</b>											
GT Exhaust Diffuser	134	117	110	111	107	104	100	99	82	110	134
HRSG Inlet Transition	135	116	112	105	103	98	89	84	64	105	135
HRSG Wall	136	116	112	104	97	93	81	72	48	102	136
Stack Wall	107	93	91	87	74	72	40	12	-33	81	107
Stack Exit	136	123	124	120	115	106	90	91	77	116	137
IP/LP Kettle Boilers	109	110	98	95	100	95	93	91	89	101	113
GT Inlet Filter House	119	117	110	99	84	88	83	89	99	101	122
GT Fuel Gas Systems	104	100	89	81	80	86	88	91	89	95	106
GT Generator	102	114	107	96	89	88	86	82	65	96	115
GT Lube Oil Package	99	102	99	97	98	99	99	96	89	104	108
GT (in enclosure)	96	100	91	86	78	78	80	79	84	88	102
Steam Turbine											
<i>HP/IP Enclosed</i>	90	100	84	77	74	75	79	78	75	85	101
<i>LP outdoor</i>	100	113	115	110	109	103	103	102	88	111	119
<i>Generator</i>	109	117	107	96	89	87	88	85	73	97	118
Cooling Tower	120	118	112	111	106	103	101	103	102	111	121
Cooling Tower Fan	110	110	109	106	100	100	95	93	85	105	115
Recirc Water Pump	106	106	103	101	102	106	97	94	85	108	112
Boiler Feed Water Pump	109	114	116	107	112	111	110	105	101	116	121
Fuel Gas Conditioning	84	88	93	85	94	97	98	101	91	105	105
Generator Transformer	101	107	110	100	110	91	89	82	76	107	114
Auxiliary Transformer	95	95	95	97	95	87	80	73	66	95	103
Steam Turbine Lube Oil	99	102	99	97	98	99	99	96	89	104	108
Condenser	110	110	106	105	104	106	105	105	101	112	116
Condensate Pumps	98	98	97	96	94	94	96	95	90	102	105
<b>Material Handling/Delivery</b>											
Coal/Pet Coke Unload	117	117	110	110	101	102	102	98	93	108	121

Slag/Sulfur Loading	101	97	97	102	97	95	93	92	90	101	107
Transfer Tower	111	116	111	111	106	91	86	81	76	106	119
Slurry Feed Building	90	91	92	94	94	97	94	90	84	101	102
Slurry Prep Building	93	94	95	97	97	100	97	93	87	103	105
Slag Handling Building	97	98	99	101	101	104	101	97	91	108	109
Rod Mill Building	116	111	113	112	111	111	111	105	96	116	121
Ship Unloading Crane	115	118	120	112	112	111	110	104	97	116	124
Locomotive	119	119	109	107	108	104	99	87	79	109	123