

Appendix 5.8 Calculation of Fixed Plant Noise

ID	Item	Maximum Allowable SWL
1-1	Flash Mixer	82
1-2	Flash Mixer	82
1-3	Flash Mixer	82
1-4	Flash Mixer	82
2-1	Mixer	82
2-2	Mixer	82
2-3	Mixer	82
2-4	Mixer	82
2-5	Mixer	82
2-6	Mixer	82
2-7	Mixer	82
2-8	Mixer	82
2-9	Mixer	82
2-10	Mixer	82
2-11	Mixer	82
2-12	Mixer	82
2-13	Mixer	82
2-14	Mixer	82
2-15	Mixer	82
2-16	Mixer	82
2-17	Mixer	82
2-18	Mixer	82
2-19	Mixer	82
2-20	Mixer	82
2-21	Mixer	82
2-22	Mixer	82
2-23	Mixer	82
2-24	Mixer	82
4-1	Ventilation fan	84
4-2	Blower	83
4-3	Blower	83
4-4	After Cooler	84
4-5	After Cooler	84
4-6	Vaccum blower discharge silence	84
4-7	Vaccum blower discharge silence	84
4-8	Oxygen Compressor	84
4-9	Oxygen Compressor	84
4-10	Oxygen Buffer Tank (outdoors)	84
4-11	Oxygen Buffer Tank (outdoors)	84
5-1	Blower	83
5-2	Blower	83
6-1	Ventilation fan	84
6-2	Ventilation fan	84
7-1	Blower	83
7-2	Blower	83
9-1	Mixer	82
9-2	Mixer	82
9-3	Mixer	82
9-4	Mixer	82
9-5	Mixer	82
9-6	Mixer	82
9-7	Mixer	82
9-8	Mixer	82
10-1	Under-Water Pump	85
11-1	Chiller	84
11-2	Chiller	84
11-3	Cooling Tower	84
11-4	Cooling Tower	84
12-1	Pump Gallery	83
13-1	Pump Gallery	83
13-2	Pump Gallery	83
13-3	Pump Gallery	83
13-4	Pump Gallery	83
14-1	Mixer	82

Appendix 5.8 Calculation of Fixed Plant Noise

NSR HK1

ID	Item	SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
New Plants										
1-1	Flash Mixer	82.0	334.2	16.9	334.6	-58.5	1	-10	3	16.5
1-2	Flash Mixer	82.0	330.6	16.9	331.0	-58.4	1	-10	3	16.6
1-3	Flash Mixer	82.0	336.5	16.9	337.0	-58.6	1	-10	3	16.4
1-4	Flash Mixer	82.0	332.9	16.9	333.3	-58.5	1	-10	3	16.5
2-1	Mixer	82.0	379.4	16.9	379.8	-59.6	1	-10	3	15.4
2-2	Mixer	82.0	372.7	16.9	373.0	-59.4	1	-10	3	15.6
2-3	Mixer	82.0	365.2	16.9	365.5	-59.3	1	-10	3	15.7
2-4	Mixer	82.0	358.3	16.9	358.7	-59.1	1	-10	3	15.9
2-5	Mixer	82.0	358.3	16.9	358.7	-59.1	1	-10	3	15.9
2-6	Mixer	82.0	344.3	16.9	344.7	-58.7	1	-10	3	16.3
2-7	Mixer	82.0	337.3	16.9	337.7	-58.6	1	-10	3	16.4
2-8	Mixer	82.0	330.7	16.9	331.1	-58.4	1	-10	3	16.6
2-9	Mixer	82.0	323.8	16.9	324.3	-58.2	1	-10	3	16.8
2-10	Mixer	82.0	317.3	16.9	317.8	-58.0	1	-10	3	17.0
2-11	Mixer	82.0	310.7	16.9	311.2	-57.9	1	-10	3	17.1
2-12	Mixer	82.0	304.4	16.9	304.9	-57.7	1	-10	3	17.3
2-13	Mixer	82.0	383.7	16.9	384.1	-59.7	1	-10	3	15.3
2-14	Mixer	82.0	376.8	16.9	377.1	-59.5	1	-10	3	15.5
2-15	Mixer	82.0	369.6	16.9	369.9	-59.4	1	-10	3	15.6
2-16	Mixer	82.0	362.7	16.9	363.1	-59.2	1	-10	3	15.8
2-17	Mixer	82.0	355.7	16.9	356.1	-59.0	1	-10	3	16.0
2-18	Mixer	82.0	349.0	16.9	349.4	-58.9	1	-10	3	16.1
2-19	Mixer	82.0	342.1	16.9	342.5	-58.7	1	-10	3	16.3
2-20	Mixer	82.0	335.6	16.9	336.0	-58.5	1	-10	3	16.5
2-21	Mixer	82.0	328.8	16.9	329.2	-58.3	1	-10	3	16.7
2-22	Mixer	82.0	322.4	16.9	322.9	-58.2	1	-10	3	16.8
2-23	Mixer	82.0	315.9	16.9	316.3	-58.0	1	-10	3	17.0
2-24	Mixer	82.0	309.7	16.9	310.1	-57.8	1	-10	3	17.2
4-1	Ventilation fan	84.0	373.4	16.9	373.8	-59.5	1	-10	3	17.5
4-2	Blower	83.0	373.4	16.9	373.8	-59.5	1	-10	3	16.5
4-3	Blower	83.0	373.4	16.9	373.8	-59.5	1	-10	3	16.5
4-4	After Cooler	84.0	373.4	16.9	373.8	-59.5	1	-10	3	17.5
4-5	After Cooler	84.0	373.4	16.9	373.8	-59.5	1	-10	3	17.5
4-6	Vaccum blower discharge silence	84.0	373.4	16.9	373.8	-59.5	1	-10	3	17.5
4-7	Vaccum blower discharge silence	84.0	373.4	16.9	373.8	-59.5	1	-10	3	17.5
4-8	Oxygen Compressor	84.0	373.4	16.9	373.8	-59.5	1	-10	3	17.5
4-9	Oxygen Compressor	84.0	373.4	16.9	373.8	-59.5	1	-10	3	17.5
4-10	Oxygen Buffer Tank (outdoors)	84.0	373.4	16.9	373.8	-59.5	1	-10	3	17.5
4-11	Oxygen Buffer Tank (outdoors)	84.0	373.4	16.9	373.8	-59.5	1	-10	3	17.5
5-1	Blower	83.0	405.4	16.9	405.8	-60.2	1	-10	3	15.8
5-2	Blower	83.0	405.4	16.9	405.8	-60.2	1	-10	3	15.8
6-1	Ventilation fan	84.0	347.3	16.9	347.7	-58.8	1	-10	3	18.2
6-2	Ventilation fan	84.0	347.3	16.9	347.7	-58.8	1	-10	3	18.2
7-1	Blower	83.0	291.9	16.9	292.4	-57.3	1	-10	3	18.7
7-2	Blower	83.0	291.9	16.9	292.4	-57.3	1	-10	3	18.7
9-1	Mixer	82.0	285.8	16.9	286.3	-57.1	1	-10	3	17.9
9-2	Mixer	82.0	470.4	16.9	470.7	-61.5	1	-10	3	13.5
9-3	Mixer	82.0	464.9	16.9	465.2	-61.4	1	-10	3	13.6
9-4	Mixer	82.0	459.4	16.9	459.7	-61.2	1	-10	3	13.8
9-5	Mixer	82.0	480.6	16.9	480.9	-61.6	1	-10	3	13.4
9-6	Mixer	82.0	475.0	16.9	475.3	-61.5	1	-10	3	13.5
9-7	Mixer	82.0	469.6	16.9	469.9	-61.4	1	-10	3	13.6
9-8	Mixer	82.0	464.1	16.9	464.4	-61.3	1	-10	3	13.7
10-1	Under-Water Pump	85.0	259.2	16.9	259.8	-56.3	1	-10	3	21.7
11-1	Chiller	84.0	271.5	16.9	272.0	-56.7	1	-5	3	25.3
11-2	Chiller	84.0	271.5	16.9	272.0	-56.7	1	-5	3	25.3
11-3	Cooling Tower	84.0	271.5	16.9	272.0	-56.7	1	-5	3	25.3
11-4	Cooling Tower	84.0	271.5	16.9	272.0	-56.7	1	-5	3	25.3
12-1	Pump Gallery	83.0	396.5	16.9	396.9	-60.0	2	-10	3	19.0
13-1	Pump Gallery	83.0	426.9	16.9	427.2	-60.6	2	-10	3	18.4
13-2	Pump Gallery	83.0	407.7	16.9	408.0	-60.2	2	-10	3	18.8
13-3	Pump Gallery	83.0	426.7	16.9	427.0	-60.6	2	-10	3	18.4
13-4	Pump Gallery	83.0	414.3	16.9	414.6	-60.4	2	-10	3	18.7
14-1	Mixer	82.0	303.4	16.9	303.8	-57.7	1	-10	3	17.3
Existing Plants										
E-1	Sludge Tank	75.9	114.9	16.9	116.1	-49.3	1	-10	3	19.6
E-2	Sludge Treatment Room Ventilation Exhaust	75.9	91.4	16.9	92.9	-47.4	1	-10	3	21.5
E-3	Sludge Treatment House at Entrance Opening	75.9	70.3	16.9	72.3	-45.2	1	-10	3	23.7
E-4	North Pump Room at Entrance Opening	75.9	55.9	16.9	58.4	-43.3	1	-10	3	25.6
E-5	Acceleration Tank Control Room at Entrance Opening	86.8	76.9	16.9	78.7	-45.9	1	-10	3	33.9
E-7	Sludge Treatment Room (Opening at Main Entrance)	82.0	74.0	16.9	75.9	-45.6	1	-10	3	29.4
E-8	North Pump Room	96.4	212.7	16.9	213.4	-54.6	1	-10	3	34.8
E-9	Acceleration Tank Control Room	77.4	287.9	16.9	288.4	-57.2	1	-10	3	13.2
E-10	Acceleration Tank*	88.3	248.7	16.9	249.3	-55.9	1	-10	3	25.4
E-11	Acceleration Tank*	88.3	298.0	16.9	298.5	-57.5	1	-10	3	23.8
E-12	Acceleration Tank*	88.3	244.5	16.9	245.1	-55.8	1	-10	3	25.6
E-13	Chemical House VentilationExhaust	88.3	331.6	16.9	332.0	-58.4	1	-10	3	22.9
E-14	Chemical House Battery House at Entrance Opening	88.3	266.3	16.9	266.8	-56.5	1	-10	3	24.8
E-15	Acceleration Tank*	88.3	338.2	16.9	338.6	-58.6	1	-10	3	22.7
E-16	Chemical House (Ventilation)	89.2	268.2	16.9	268.7	-56.6	1	-10	3	25.6
E-17	Chemical House (Battery House)	89.5	402.9	16.9	403.3	-60.1	1	-10	3	22.4
SCL (TAW - HUH)										
EWL-1	Ventilation Shaft	88.0	78.4	0	78.4	-45.9	1	-10	3	35.1
EWL-2	Ventilation Shaft	81.0	87.1	0	87.1	-46.8	1	-10	3	27.2
EWL-3	Ventilation Shaft	81.0	73.6	0	73.6	-45.3	1	-10	3	28.7
EWL-4	Ventilation Shaft	81.0	61.9	0	61.9	-43.8	1	-10	3	30.2
EWL-5	Ventilation Shaft	82.0	73.2	0	73.2	-45.3	1	-10	3	29.7

Note: *Included the Middle and side motors of the Acceleration Tank

Existing Plants	39.7 dB(A)
New Plants	36.3 dB(A)
SCL (TAW - HUH)	38.1 dB(A)
Cumulative Total:	43.0 dB(A)

Appendix 5.8 Calculation of Fixed Plant Noise

NSR HK2

ID	Item	SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
New Plants										
1-1	Flash Mixer	82.0	326.6	16.9	327.0	-58.3	1	0	3	26.7
1-2	Flash Mixer	82.0	323.0	16.9	323.4	-58.2	1	0	3	26.8
1-3	Flash Mixer	82.0	329.0	16.9	329.4	-58.4	1	0	3	26.6
1-4	Flash Mixer	82.0	325.4	16.9	325.9	-58.3	1	0	3	26.7
2-1	Mixer	82.0	371.5	16.9	371.9	-59.4	1	0	3	25.6
2-2	Mixer	82.0	364.8	16.9	365.2	-59.3	1	0	3	25.7
2-3	Mixer	82.0	357.4	16.9	357.8	-59.1	1	0	3	25.9
2-4	Mixer	82.0	350.7	16.9	351.1	-58.9	1	0	3	26.1
2-5	Mixer	82.0	350.7	16.9	351.1	-58.9	1	0	3	26.1
2-6	Mixer	82.0	337.0	16.9	337.4	-58.6	1	0	3	26.4
2-7	Mixer	82.0	330.1	16.9	330.5	-58.4	1	0	3	26.6
2-8	Mixer	82.0	323.6	16.9	324.0	-58.2	1	0	3	26.8
2-9	Mixer	82.0	316.9	16.9	317.3	-58.0	1	0	3	27.0
2-10	Mixer	82.0	310.5	16.9	311.0	-57.9	1	0	3	27.1
2-11	Mixer	82.0	304.1	16.9	304.5	-57.7	1	0	3	27.3
2-12	Mixer	82.0	298.0	16.9	298.4	-57.5	1	0	3	27.5
2-13	Mixer	82.0	375.9	16.9	376.3	-59.5	1	0	3	25.5
2-14	Mixer	82.0	369.1	16.9	369.5	-59.4	1	0	3	25.6
2-15	Mixer	82.0	362.0	16.9	362.4	-59.2	1	0	3	25.8
2-16	Mixer	82.0	355.3	16.9	355.7	-59.0	1	0	3	26.0
2-17	Mixer	82.0	348.4	16.9	348.8	-58.9	1	0	3	26.1
2-18	Mixer	82.0	341.8	16.9	342.2	-58.7	1	0	3	26.3
2-19	Mixer	82.0	335.0	16.9	335.4	-58.5	1	0	3	26.5
2-20	Mixer	82.0	328.6	16.9	329.1	-58.3	1	0	3	26.7
2-21	Mixer	82.0	322.0	16.9	322.4	-58.2	1	0	3	26.8
2-22	Mixer	82.0	315.8	16.9	316.3	-58.0	1	0	3	27.0
2-23	Mixer	82.0	309.4	16.9	309.9	-57.8	1	0	3	27.2
2-24	Mixer	82.0	303.4	16.9	303.8	-57.7	1	0	3	27.3
4-1	Ventilation fan	84.0	367.1	16.9	367.5	-59.3	1	0	3	27.7
4-2	Blower	83.0	367.1	16.9	367.5	-59.3	1	0	3	26.7
4-3	Blower	83.0	367.1	16.9	367.5	-59.3	1	0	3	26.7
4-4	After Cooler	84.0	367.1	16.9	367.5	-59.3	1	0	3	27.7
4-5	After Cooler	84.0	367.1	16.9	367.5	-59.3	1	0	3	27.7
4-6	Vaccum blower discharge silence	84.0	367.1	16.9	367.5	-59.3	1	0	3	27.7
4-7	Vaccum blower discharge silence	84.0	367.1	16.9	367.5	-59.3	1	0	3	27.7
4-8	Oxygen Compressor	84.0	367.1	16.9	367.5	-59.3	1	0	3	27.7
4-9	Oxygen Compressor	84.0	367.1	16.9	367.5	-59.3	1	0	3	27.7
4-10	Oxygen Buffer Tank (outdoors)	84.0	367.1	16.9	367.5	-59.3	1	0	3	27.7
4-11	Oxygen Buffer Tank (outdoors)	84.0	367.1	16.9	367.5	-59.3	1	0	3	27.7
5-1	Blower	83.0	399.7	16.9	400.1	-60.0	1	0	3	26.0
5-2	Blower	83.0	399.7	16.9	400.1	-60.0	1	0	3	26.0
6-1	Ventilation fan	84.0	343.6	16.9	344.0	-58.7	1	0	3	28.3
6-2	Ventilation fan	84.0	343.6	16.9	344.0	-58.7	1	0	3	28.3
7-1	Blower	83.0	286.9	16.9	287.4	-57.2	1	0	3	28.8
7-2	Blower	83.0	286.9	16.9	287.4	-57.2	1	0	3	28.8
9-1	Mixer	82.0	275.7	16.9	276.3	-56.8	1	0	3	28.2
9-2	Mixer	82.0	463.7	16.9	464.0	-61.3	1	0	3	23.7
9-3	Mixer	82.0	458.2	16.9	458.5	-61.2	1	0	3	23.8
9-4	Mixer	82.0	452.8	16.9	453.1	-61.1	1	0	3	23.9
9-5	Mixer	82.0	473.8	16.9	474.1	-61.5	1	0	3	23.5
9-6	Mixer	82.0	468.4	16.9	468.7	-61.4	1	0	3	23.6
9-7	Mixer	82.0	463.0	16.9	463.3	-61.3	1	0	3	23.7
9-8	Mixer	82.0	457.7	16.9	458.0	-61.2	1	0	3	23.8
10-1	Under-Water Pump	85.0	252.3	16.9	252.9	-56.1	1	0	3	31.9
11-1	Chiller	84.0	268.5	16.9	269.0	-56.6	1	0	3	30.4
11-2	Chiller	84.0	268.5	16.9	269.0	-56.6	1	0	3	30.4
11-3	Cooling Tower	84.0	268.5	16.9	269.0	-56.6	1	0	3	30.4
11-4	Cooling Tower	84.0	268.5	16.9	269.0	-56.6	1	0	3	30.4
12-1	Pump Gallery	83.0	386.6	16.9	386.9	-59.8	2	0	3	29.3
13-1	Pump Gallery	83.0	417.3	16.9	417.7	-60.4	2	0	3	28.6
13-2	Pump Gallery	83.0	398.3	16.9	398.6	-60.0	2	0	3	29.0
13-3	Pump Gallery	83.0	417.4	16.9	417.8	-60.4	2	0	3	28.6
13-4	Pump Gallery	83.0	405.2	16.9	405.5	-60.2	2	0	3	28.9
14-1	Mixer	82.0	294.4	16.9	294.9	-57.4	1	0	3	27.6
Existing Plants										
E-1	Sludge Tank	75.9	103.8	16.9	105.2	-48.4	1	0	3	30.5
E-2	Sludge Treatment Room Ventilation Exhaust	75.9	80.7	16.9	82.4	-46.3	1	0	3	32.6
E-3	Sludge Treatment House at Entrance Opening	75.9	60.8	16.9	63.1	-44.0	1	0	3	34.9
E-4	North Pump Room at Entrance Opening	75.9	49.7	16.9	52.5	-42.4	1	0	3	36.5
E-5	Acceleration Tank Control Room at Entrance Opening	86.8	69.3	16.9	71.4	-45.1	1	0	3	44.7
E-7	Sludge Treatment Room (Opening at Main Entrance)	82.0	69.7	16.9	71.7	-45.1	1	-5	3	34.9
E-8	North Pump Room	96.4	206.2	16.9	206.8	-54.3	1	-5	3	40.1
E-9	Acceleration Tank Control Room	77.4	278.0	16.9	278.5	-56.9	1	0	3	23.5
E-10	Acceleration Tank*	88.3	237.6	16.9	238.2	-55.5	1	0	3	35.8
E-11	Acceleration Tank*	88.3	287.2	16.9	287.7	-57.2	1	0	3	34.2
E-12	Acceleration Tank*	88.3	234.1	16.9	234.7	-55.4	1	0	3	35.9
E-13	Chemical House VentilationExhaust	88.3	321.4	16.9	321.8	-58.2	1	0	3	33.2
E-14	Chemical House Battery House at Entrance Opening	88.3	257.5	16.9	258.0	-56.2	1	0	3	35.1
E-15	Acceleration Tank*	88.3	328.9	16.9	329.4	-58.4	1	0	3	33.0
E-16	Chemical House (Ventilation)	89.2	257.0	16.9	257.5	-56.2	1	-10	3	26.0
E-17	Chemical House (Battery House)	89.5	395.1	16.9	395.5	-59.9	1	-10	3	22.6
SCL (TAW - HUH)										
	Max. SWL									
EWL-1	Ventilation Shaft	88.0	89.5	0	89.5	-47.0	1	-10	3	34.0
EWL-2	Ventilation Shaft	81.0	98.4	0	98.4	-47.9	1	-10	3	26.1
EWL-3	Ventilation Shaft	81.0	84.8	0	84.8	-46.6	1	-10	3	27.4
EWL-4	Ventilation Shaft	81.0	73.0	0	73.0	-45.3	1	-10	3	28.7
EWL-5	Ventilation Shaft	82.0	84.4	0	84.4	-46.5	1	-10	3	28.5

Note: *Included the Middle and side motors of the Acceleration Tank

Existing Plants	48.6
New Plants	45.5
SCL (TAW - HUH)	36.9
Cumulative Total:	50.5

Appendix 5.8 Calculation of Fixed Plant Noise

NSR HK3

ID	Item	SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
New Plants										
1-1	Flash Mixer	82.0	370.9	1	370.9	-59.4	1	-10	3	15.6
1-2	Flash Mixer	82.0	366.7	1	366.7	-59.3	1	-10	3	15.7
1-3	Flash Mixer	82.0	372.1	1	372.1	-59.4	1	-10	3	15.6
1-4	Flash Mixer	82.0	367.9	1	367.9	-59.3	1	-10	3	15.7
2-1	Mixer	82.0	417.7	1	417.7	-60.4	1	-10	3	14.6
2-2	Mixer	82.0	409.9	1	409.9	-60.3	1	-10	3	14.7
2-3	Mixer	82.0	401.5	1	401.5	-60.1	1	-10	3	14.9
2-4	Mixer	82.0	393.6	1	393.6	-59.9	1	-10	3	15.1
2-5	Mixer	82.0	393.6	1	393.6	-59.9	1	-10	3	15.1
2-6	Mixer	82.0	377.4	1	377.5	-59.5	1	-10	3	15.5
2-7	Mixer	82.0	369.3	1	369.3	-59.3	1	-10	3	15.7
2-8	Mixer	82.0	361.4	1	361.4	-59.2	1	-10	3	15.8
2-9	Mixer	82.0	353.2	1	353.2	-59.0	1	-10	3	16.0
2-10	Mixer	82.0	345.4	1	345.4	-58.8	1	-10	3	16.2
2-11	Mixer	82.0	337.3	1	337.3	-58.6	1	-10	3	16.4
2-12	Mixer	82.0	329.6	1	329.6	-58.4	1	-10	3	16.6
2-13	Mixer	82.0	420.1	1	420.1	-60.5	1	-10	3	14.5
2-14	Mixer	82.0	412.2	1	412.2	-60.3	1	-10	3	14.7
2-15	Mixer	82.0	403.9	1	403.9	-60.1	1	-10	3	14.9
2-16	Mixer	82.0	396.1	1	396.1	-60.0	1	-10	3	15.0
2-17	Mixer	82.0	387.9	1	387.9	-59.8	1	-10	3	15.2
2-18	Mixer	82.0	380.1	1	380.1	-59.6	1	-10	3	15.4
2-19	Mixer	82.0	371.9	1	371.9	-59.4	1	-10	3	15.6
2-20	Mixer	82.0	364.2	1	364.2	-59.2	1	-10	3	15.8
2-21	Mixer	82.0	356.0	1	356.0	-59.0	1	-10	3	16.0
2-22	Mixer	82.0	348.3	1	348.3	-58.8	1	-10	3	16.2
2-23	Mixer	82.0	340.3	1	340.3	-58.6	1	-10	3	16.4
2-24	Mixer	82.0	332.6	1	332.6	-58.4	1	-10	3	16.6
4-1	Ventilation fan	84.0	393.2	1	393.2	-59.9	1	-10	3	17.1
4-2	Blower	83.0	393.2	1	393.2	-59.9	1	-10	3	16.1
4-3	Blower	83.0	393.2	1	393.2	-59.9	1	-10	3	16.1
4-4	After Cooler	84.0	393.2	1	393.2	-59.9	1	-10	3	17.1
4-5	After Cooler	84.0	393.2	1	393.2	-59.9	1	-10	3	17.1
4-6	Vaccum blower discharge silence	84.0	393.2	1	393.2	-59.9	1	-10	3	17.1
4-7	Vaccum blower discharge silence	84.0	393.2	1	393.2	-59.9	1	-10	3	17.1
4-8	Oxygen Compressor	84.0	393.2	1	393.2	-59.9	1	-10	3	17.1
4-9	Oxygen Compressor	84.0	393.2	1	393.2	-59.9	1	-10	3	17.1
4-10	Oxygen Buffer Tank (outdoors)	84.0	393.2	1	393.2	-59.9	1	-10	3	17.1
4-11	Oxygen Buffer Tank (outdoors)	84.0	393.2	1	393.2	-59.9	1	-10	3	17.1
5-1	Blower	83.0	417.0	1	417.0	-60.4	1	-10	3	15.6
5-2	Blower	83.0	417.0	1	417.0	-60.4	1	-10	3	15.6
6-1	Ventilation fan	84.0	340.0	1	340.0	-58.6	1	-10	3	18.4
6-2	Ventilation fan	84.0	340.0	1	340.0	-58.6	1	-10	3	18.4
7-1	Blower	83.0	301.7	1	301.7	-57.6	1	-10	3	18.4
7-2	Blower	83.0	301.7	1	301.7	-57.6	1	-10	3	18.4
9-1	Mixer	82.0	396.2	1	396.2	-60.0	1	-10	3	15.0
9-2	Mixer	82.0	491.9	1	491.9	-61.8	1	-10	3	13.2
9-3	Mixer	82.0	485.4	1	485.4	-61.7	1	-10	3	13.3
9-4	Mixer	82.0	479.0	1	479.0	-61.6	1	-10	3	13.4
9-5	Mixer	82.0	501.6	1	501.6	-62.0	1	-10	3	13.0
9-6	Mixer	82.0	495.2	1	495.2	-61.9	1	-10	3	13.1
9-7	Mixer	82.0	488.7	1	488.7	-61.8	1	-10	3	13.2
9-8	Mixer	82.0	482.4	1	482.4	-61.7	1	-10	3	13.3
10-1	Under-Water Pump	85.0	292.8	1	292.8	-57.3	1	-10	3	20.7
11-1	Chiller	84.0	262.2	1	262.2	-56.4	1	-10	3	20.6
11-2	Chiller	84.0	262.2	1	262.2	-56.4	1	-10	3	20.6
11-3	Cooling Tower	84.0	262.2	1	262.2	-56.4	1	-10	3	20.6
11-4	Cooling Tower	84.0	262.2	1	262.2	-56.4	1	-10	3	20.6
12-1	Pump Gallery	83.0	461.9	1	461.9	-61.3	2	-10	3	17.7
13-1	Pump Gallery	83.0	485.2	1	485.2	-61.7	2	-10	3	17.3
13-2	Pump Gallery	83.0	464.4	1	464.4	-61.3	2	-10	3	17.7
13-3	Pump Gallery	83.0	480.4	1	480.4	-61.6	2	-10	3	17.4
13-4	Pump Gallery	83.0	467.2	1	467.2	-61.4	2	-10	3	17.6
14-1	Mixer	82.0	358.3	1	358.3	-59.1	1	-10	3	15.9
Existing Plants										
E-1	Sludge Tank	75.9	211.0	1	211.0	-54.5	1	0	3	24.4
E-2	Sludge Treatment Room Ventilation Exhaust	75.9	183.7	1	183.7	-53.3	1	0	3	25.6
E-3	Sludge Treatment House at Entrance Opening	75.9	156.1	1	156.1	-51.9	1	0	3	27.0
E-4	North Pump Room at Entrance Opening	75.9	129.1	1	129.1	-50.2	1	0	3	28.7
E-5	Acceleration Tank Control Room at Entrance Opening	86.8	148.1	1	148.1	-51.4	1	0	3	38.4
E-7	Sludge Treatment Room (Opening at Main Entrance)	82.0	126.1	1	126.1	-50.0	1	0	3	35.0
E-8	North Pump Room	96.4	246.8	1	246.8	-55.8	1	-5	3	38.6
E-9	Acceleration Tank Control Room	77.4	355.3	1	355.3	-59.0	1	0	3	21.4
E-10	Acceleration Tank*	88.3	341.7	1	341.7	-58.7	1	0	3	32.7
E-11	Acceleration Tank*	88.3	381.3	1	381.3	-59.6	1	0	3	31.7
E-12	Acceleration Tank*	88.3	321.1	1	321.1	-58.1	1	0	3	33.2
E-13	Chemical House Ventilation Exhaust	88.3	402.9	1	402.9	-60.1	1	0	3	31.2
E-14	Chemical House Battery House at Entrance Opening	88.3	320.6	1	320.6	-58.1	1	0	3	33.2
E-15	Acceleration Tank*	88.3	394.7	1	394.7	-59.9	1	0	3	31.4
E-16	Chemical House (Ventilation)	89.2	370.8	1	370.8	-59.4	1	-10	3	22.8
E-17	Chemical House (Battery House)	89.5	439.1	1	439.1	-60.9	1	-10	3	21.6
SCL (TAW - HUH)										
EWL-1	Ventilation Shaft	88.0	75.3	0	75.3	-45.5	1	0	3	45.5
EWL-2	Ventilation Shaft	81.0	59.9	0	59.9	-43.6	1	-5	3	35.4
EWL-3	Ventilation Shaft	81.0	57.4	0	57.4	-43.2	1	-10	3	30.8
EWL-4	Ventilation Shaft	81.0	77.1	0	77.1	-45.7	1	0	3	38.3
EWL-5	Ventilation Shaft	82.0	67.8	0	67.8	-44.6	1	0	3	40.4

Note: *Included the Middle and side motors of the Acceleration Tank

Existing Plants	44.7
New Plants	34.8
SCL (TAW - HUH)	47.6
Cumulative Total:	49.6

Appendix 5.8 Calculation of Fixed Plant Noise

NSR

HK4

ID	Item	SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
New Plants										
1-1	Flash Mixer	82.0	336.9	0.8	336.9	-58.6	1	0	3	26.4
1-2	Flash Mixer	82.0	332.6	0.8	332.6	-58.4	1	0	3	26.6
1-3	Flash Mixer	82.0	337.5	0.8	337.5	-58.6	1	0	3	26.4
1-4	Flash Mixer	82.0	333.2	0.8	333.2	-58.5	1	0	3	26.5
2-1	Mixer	82.0	383.1	0.8	383.1	-59.7	1	0	3	25.3
2-2	Mixer	82.0	375.0	0.8	375.0	-59.5	1	0	3	25.5
2-3	Mixer	82.0	366.3	0.8	366.3	-59.3	1	0	3	25.7
2-4	Mixer	82.0	358.2	0.8	358.2	-59.1	1	0	3	25.9
2-5	Mixer	82.0	358.2	0.8	358.2	-59.1	1	0	3	25.9
2-6	Mixer	82.0	341.5	0.8	341.5	-58.7	1	0	3	26.3
2-7	Mixer	82.0	333.0	0.8	333.0	-58.4	1	0	3	26.6
2-8	Mixer	82.0	324.8	0.8	324.8	-58.2	1	0	3	26.8
2-9	Mixer	82.0	316.3	0.8	316.3	-58.0	1	0	3	27.0
2-10	Mixer	82.0	308.1	0.8	308.1	-57.8	1	0	3	27.2
2-11	Mixer	82.0	299.6	0.8	299.6	-57.5	1	0	3	27.5
2-12	Mixer	82.0	291.5	0.8	291.5	-57.3	1	0	3	27.7
2-13	Mixer	82.0	384.5	0.8	384.5	-59.7	1	0	3	25.3
2-14	Mixer	82.0	376.4	0.8	376.4	-59.5	1	0	3	25.5
2-15	Mixer	82.0	367.8	0.8	367.8	-59.3	1	0	3	25.7
2-16	Mixer	82.0	359.7	0.8	359.7	-59.1	1	0	3	25.9
2-17	Mixer	82.0	351.2	0.8	351.2	-58.9	1	0	3	26.1
2-18	Mixer	82.0	343.0	0.8	343.0	-58.7	1	0	3	26.3
2-19	Mixer	82.0	334.5	0.8	334.5	-58.5	1	0	3	26.5
2-20	Mixer	82.0	326.5	0.8	326.5	-58.3	1	0	3	26.7
2-21	Mixer	82.0	317.9	0.8	318.0	-58.0	1	0	3	27.0
2-22	Mixer	82.0	309.9	0.8	309.9	-57.8	1	0	3	27.2
2-23	Mixer	82.0	301.4	0.8	301.4	-57.6	1	0	3	27.4
2-24	Mixer	82.0	293.3	0.8	293.3	-57.3	1	0	3	27.7
4-1	Ventilation fan	84.0	350.6	0.8	350.6	-58.9	1	0	3	28.1
4-2	Blower	83.0	350.6	0.8	350.6	-58.9	1	0	3	27.1
4-3	Blower	83.0	350.6	0.8	350.6	-58.9	1	0	3	27.1
4-4	After Cooler	84.0	350.6	0.8	350.6	-58.9	1	0	3	28.1
4-5	After Cooler	84.0	350.6	0.8	350.6	-58.9	1	0	3	28.1
4-6	Vaccum blower discharge silence	84.0	350.6	0.8	350.6	-58.9	1	0	3	28.1
4-7	Vaccum blower discharge silence	84.0	350.6	0.8	350.6	-58.9	1	0	3	28.1
4-8	Oxygen Compressor	84.0	350.6	0.8	350.6	-58.9	1	0	3	28.1
4-9	Oxygen Compressor	84.0	350.6	0.8	350.6	-58.9	1	0	3	28.1
4-10	Oxygen Buffer Tank (outdoors)	84.0	350.6	0.8	350.6	-58.9	1	0	3	28.1
4-11	Oxygen Buffer Tank (outdoors)	84.0	350.6	0.8	350.6	-58.9	1	0	3	28.1
5-1	Blower	83.0	370.6	0.8	370.6	-59.4	1	0	3	26.6
5-2	Blower	83.0	370.6	0.8	370.6	-59.4	1	0	3	26.6
6-1	Ventilation fan	84.0	288.2	0.8	288.2	-57.2	1	0	3	29.8
6-2	Ventilation fan	84.0	288.2	0.8	288.2	-57.2	1	0	3	29.8
7-1	Blower	83.0	257.8	0.8	257.8	-56.2	1	0	3	29.8
7-2	Blower	83.0	257.8	0.8	257.8	-56.2	1	0	3	29.8
9-1	Mixer	82.0	421.3	0.8	421.3	-60.5	1	0	3	24.5
9-2	Mixer	82.0	448.2	0.8	448.2	-61.0	1	0	3	24.0
9-3	Mixer	82.0	441.4	0.8	441.4	-60.9	1	0	3	24.1
9-4	Mixer	82.0	434.7	0.8	434.7	-60.8	1	0	3	24.2
9-5	Mixer	82.0	457.5	0.8	457.5	-61.2	1	0	3	23.8
9-6	Mixer	82.0	450.8	0.8	450.8	-61.1	1	0	3	23.9
9-7	Mixer	82.0	444.1	0.8	444.1	-61.0	1	0	3	24.0
9-8	Mixer	82.0	437.4	0.8	437.5	-60.8	1	0	3	24.2
10-1	Under-Water Pump	85.0	260.5	0.8	260.5	-56.3	1	0	3	31.7
11-1	Chiller	84.0	212.3	0.8	212.3	-54.5	1	0	3	32.5
11-2	Chiller	84.0	212.3	0.8	212.3	-54.5	1	0	3	32.5
11-3	Cooling Tower	84.0	212.3	0.8	212.3	-54.5	1	0	3	32.5
11-4	Cooling Tower	84.0	212.3	0.8	212.3	-54.5	1	0	3	32.5
12-1	Pump Gallery	83.0	441.3	0.8	441.3	-60.9	2	0	3	28.1
13-1	Pump Gallery	83.0	459.8	0.8	459.8	-61.3	2	0	3	27.8
13-2	Pump Gallery	83.0	438.6	0.8	438.6	-60.8	2	0	3	28.2
13-3	Pump Gallery	83.0	452.6	0.8	452.6	-61.1	2	0	3	27.9
13-4	Pump Gallery	83.0	439.2	0.8	439.2	-60.9	2	0	3	28.2
14-1	Mixer	82.0	334.5	0.8	334.5	-58.5	1	0	3	26.5
Existing Plants										
E-1	Sludge Tank	75.9	223.8	0.8	223.8	-55.0	1	0	3	23.9
E-2	Sludge Treatment Room Ventilation Exhaust	75.9	196.7	0.8	196.7	-53.9	1	0	3	25.0
E-3	Sludge Treatment House at Entrance Opening	75.9	169.4	0.8	169.4	-52.6	1	0	3	26.3
E-4	North Pump Room at Entrance Opening	75.9	142.8	0.8	142.8	-51.1	1	0	3	27.8
E-5	Acceleration Tank Control Room at Entrance Opening	86.8	155.1	0.8	155.1	-51.8	1	-10	3	28.0
E-7	Sludge Treatment Room (Opening at Main Entrance)	82.0	129.9	0.8	129.9	-50.3	1	0	3	34.7
E-8	North Pump Room	96.4	218.0	0.8	218.0	-54.8	1	0	3	44.6
E-9	Acceleration Tank Control Room	77.4	339.1	0.8	339.1	-58.6	1	0	3	21.8
E-10	Acceleration Tank*	88.3	344.6	0.8	344.6	-58.7	1	0	3	32.6
E-11	Acceleration Tank*	88.3	375.1	0.8	375.1	-59.5	1	0	3	31.9
E-12	Acceleration Tank*	88.3	312.4	0.8	312.4	-57.9	1	0	3	33.4
E-13	Chemical House VentilationExhaust	88.3	387.5	0.8	387.5	-59.8	1	0	3	31.6
E-14	Chemical House Battery House at Entrance Opening	88.3	298.0	0.8	298.0	-57.5	1	0	3	33.9
E-15	Acceleration Tank*	88.3	370.6	0.8	370.6	-59.4	1	0	3	32.0
E-16	Chemical House (Ventilation)	89.2	382.5	0.8	382.5	-59.7	1	-10	3	22.5
E-17	Chemical House (Battery House)	89.5	402.9	0.8	402.9	-60.1	1	-10	3	22.4
SCL (TAW - HUH)										
EWL-1	Ventilation Shaft	88.0	135.4	0	135.4	-50.6	1	-10	3	30.4
EWL-2	Ventilation Shaft	81.0	121.2	0	121.2	-49.7	1	-5	3	29.3
EWL-3	Ventilation Shaft	81.0	116.0	0	116.0	-49.3	1	0	3	34.7
EWL-4	Ventilation Shaft	81.0	133.8	0	133.8	-50.5	1	-10	3	23.5
EWL-5	Ventilation Shaft	82.0	126.9	0	126.9	-50.1	1	0	3	34.9

Note: *Included the Middle and side motors of the Acceleration Tank

Existing Plants	46.6
New Plants	45.8
SCL (TAW - HUH)	39.2
Cumulative Total:	49.7

Appendix 5.8 Calculation of Fixed Plant Noise

NSR

HK5

ID	Item	SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
New Plants										
1-1	Flash Mixer	82.0	315.7	0.9	315.7	-58.0	1	0	3	27.0
1-2	Flash Mixer	82.0	311.3	0.9	311.3	-57.9	1	0	3	27.1
1-3	Flash Mixer	82.0	315.4	0.9	315.4	-58.0	1	0	3	27.0
1-4	Flash Mixer	82.0	311.0	0.9	311.0	-57.9	1	0	3	27.1
2-1	Mixer	82.0	359.6	0.9	359.6	-59.1	1	0	3	25.9
2-2	Mixer	82.0	351.3	0.9	351.3	-58.9	1	0	3	26.1
2-3	Mixer	82.0	342.6	0.9	342.6	-58.7	1	0	3	26.3
2-4	Mixer	82.0	334.3	0.9	334.3	-58.5	1	0	3	26.5
2-5	Mixer	82.0	334.3	0.9	334.3	-58.5	1	0	3	26.5
2-6	Mixer	82.0	317.3	0.9	317.3	-58.0	1	0	3	27.0
2-7	Mixer	82.0	308.6	0.9	308.6	-57.8	1	0	3	27.2
2-8	Mixer	82.0	300.3	0.9	300.3	-57.6	1	0	3	27.4
2-9	Mixer	82.0	291.6	0.9	291.6	-57.3	1	0	3	27.7
2-10	Mixer	82.0	283.3	0.9	283.3	-57.0	1	0	3	28.0
2-11	Mixer	82.0	274.6	0.9	274.6	-56.8	1	0	3	28.2
2-12	Mixer	82.0	266.3	0.9	266.3	-56.5	1	0	3	28.5
2-13	Mixer	82.0	359.6	0.9	359.6	-59.1	1	0	3	25.9
2-14	Mixer	82.0	351.3	0.9	351.3	-58.9	1	0	3	26.1
2-15	Mixer	82.0	342.6	0.9	342.6	-58.7	1	0	3	26.3
2-16	Mixer	82.0	334.3	0.9	334.3	-58.5	1	0	3	26.5
2-17	Mixer	82.0	325.6	0.9	325.6	-58.3	1	0	3	26.7
2-18	Mixer	82.0	317.3	0.9	317.3	-58.0	1	0	3	27.0
2-19	Mixer	82.0	308.6	0.9	308.6	-57.8	1	0	3	27.2
2-20	Mixer	82.0	300.3	0.9	300.3	-57.6	1	0	3	27.4
2-21	Mixer	82.0	291.6	0.9	291.6	-57.3	1	0	3	27.7
2-22	Mixer	82.0	283.3	0.9	283.3	-57.0	1	0	3	28.0
2-23	Mixer	82.0	274.6	0.9	274.6	-56.8	1	0	3	28.2
2-24	Mixer	82.0	266.2	0.9	266.2	-56.5	1	0	3	28.5
4-1	Ventilation fan	84.0	316.5	0.9	316.5	-58.0	1	0	3	29.0
4-2	Blower	83.0	316.5	0.9	316.5	-58.0	1	0	3	28.0
4-3	Blower	83.0	316.5	0.9	316.5	-58.0	1	0	3	28.0
4-4	After Cooler	84.0	316.5	0.9	316.5	-58.0	1	0	3	29.0
4-5	After Cooler	84.0	316.5	0.9	316.5	-58.0	1	0	3	29.0
4-6	Vaccum blower discharge silence	84.0	316.5	0.9	316.5	-58.0	1	0	3	29.0
4-7	Vaccum blower discharge silence	84.0	316.5	0.9	316.5	-58.0	1	0	3	29.0
4-8	Oxygen Compressor	84.0	316.5	0.9	316.5	-58.0	1	0	3	29.0
4-9	Oxygen Compressor	84.0	316.5	0.9	316.5	-58.0	1	0	3	29.0
4-10	Oxygen Buffer Tank (outdoors)	84.0	316.5	0.9	316.5	-58.0	1	0	3	29.0
4-11	Oxygen Buffer Tank (outdoors)	84.0	316.5	0.9	316.5	-58.0	1	0	3	29.0
5-1	Blower	83.0	330.0	0.9	330.0	-58.4	1	0	3	27.6
5-2	Blower	83.0	330.0	0.9	330.0	-58.4	1	0	3	27.6
6-1	Ventilation fan	84.0	240.9	0.9	240.9	-55.6	1	0	3	31.4
6-2	Ventilation fan	84.0	240.9	0.9	240.9	-55.6	1	0	3	31.4
7-1	Blower	83.0	225.3	0.9	225.3	-55.1	1	0	3	30.9
7-2	Blower	83.0	225.3	0.9	225.3	-55.1	1	0	3	30.9
9-1	Mixer	82.0	463.9	0.9	463.9	-61.3	1	0	3	23.7
9-2	Mixer	82.0	410.1	0.9	410.1	-60.3	1	0	3	24.7
9-3	Mixer	82.0	403.1	0.9	403.1	-60.1	1	0	3	24.9
9-4	Mixer	82.0	396.0	0.9	396.1	-60.0	1	0	3	25.0
9-5	Mixer	82.0	418.9	0.9	418.9	-60.4	1	0	3	24.6
9-6	Mixer	82.0	411.9	0.9	411.9	-60.3	1	0	3	24.7
9-7	Mixer	82.0	404.8	0.9	404.9	-60.1	1	0	3	24.9
9-8	Mixer	82.0	397.8	0.9	397.8	-60.0	1	0	3	25.0
10-1	Under-Water Pump	85.0	245.4	0.9	245.4	-55.8	1	0	3	32.2
11-1	Chiller	84.0	172.0	0.9	172.0	-52.7	1	0	3	34.3
11-2	Chiller	84.0	172.0	0.9	172.0	-52.7	1	0	3	34.3
11-3	Cooling Tower	84.0	172.0	0.9	172.0	-52.7	1	0	3	34.3
11-4	Cooling Tower	84.0	172.0	0.9	172.0	-52.7	1	0	3	34.3
12-1	Pump Gallery	83.0	434.6	0.9	434.6	-60.8	2	0	3	28.2
13-1	Pump Gallery	83.0	446.6	0.9	446.7	-61.0	2	0	3	28.0
13-2	Pump Gallery	83.0	425.3	0.9	425.3	-60.6	2	0	3	28.4
13-3	Pump Gallery	83.0	436.4	0.9	436.4	-60.8	2	0	3	28.2
13-4	Pump Gallery	83.0	423.1	0.9	423.1	-60.5	2	0	3	28.5
14-1	Mixer	82.0	327.0	0.9	327.0	-58.3	1	0	3	26.7
Existing Plants										
E-1	Sludge Tank	75.9	261.9	0.9	261.9	-56.4	1	0	3	22.5
E-2	Sludge Treatment Room Ventilation Exhaust	75.9	236.9	0.9	236.9	-55.5	1	0	3	23.4
E-3	Sludge Treatment House at Entrance Opening	75.9	212.4	0.9	212.4	-54.5	1	0	3	24.4
E-4	North Pump Room at Entrance Opening	75.9	189.0	0.9	189.1	-53.5	1	0	3	25.4
E-5	Acceleration Tank Control Room at Entrance Opening	86.8	194.5	0.9	194.5	-53.8	1	-10	3	26.0
E-7	Sludge Treatment Room (Opening at Main Entrance)	82.0	170.4	0.9	170.4	-52.6	1	0	3	32.4
E-8	North Pump Room	96.4	211.0	0.9	211.0	-54.5	1	0	3	44.9
E-9	Acceleration Tank Control Room	77.4	340.8	0.9	340.8	-58.6	1	0	3	21.8
E-10	Acceleration Tank*	88.3	367.4	0.9	367.4	-59.3	1	0	3	32.0
E-11	Acceleration Tank*	88.3	387.0	0.9	387.0	-59.8	1	0	3	31.6
E-12	Acceleration Tank*	88.3	323.9	0.9	323.9	-58.2	1	0	3	33.1
E-13	Chemical House VentilationExhaust	88.3	388.6	0.9	388.6	-59.8	1	0	3	31.5
E-14	Chemical House Battery House at Entrance Opening	88.3	293.8	0.9	293.8	-57.4	1	0	3	34.0
E-15	Acceleration Tank*	88.3	361.4	0.9	361.4	-59.2	1	0	3	32.2
E-16	Chemical House (Ventilation)	89.2	413.2	0.9	413.2	-60.3	1	-10	3	21.9
E-17	Chemical House (Battery House)	89.5	376.7	0.9	376.7	-59.5	1	-10	3	23.0
SCL (TAW - HUH)										
EWL-1	Ventilation Shaft	88.0	205.8	0	205.8	-54.3	1	-10	3	26.7
EWL-2	Ventilation Shaft	81.0	191.8	0	191.8	-53.7	1	-5	3	25.3
EWL-3	Ventilation Shaft	81.0	186.2	0	186.2	-53.4	1	0	3	30.6
EWL-4	Ventilation Shaft	81.0	203.3	0	203.3	-54.2	1	-10	3	19.8
EWL-5	Ventilation Shaft	82.0	197.1	0	197.1	-53.9	1	0	3	31.1

Note: *Included the Middle and side motors of the Acceleration Tank

Existing Plants	46.6
New Plants	46.8
SCL (TAW - HUH)	35.2
Cumulative Total:	49.9

Appendix 5.8 Calculation of Fixed Plant Noise

NSR

HK6

ID	Item	SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
New Plants										
1-1	Flash Mixer	82.0	357.8	2.7	357.8	-59.1	1	0	3	25.9
1-2	Flash Mixer	82.0	353.6	2.7	353.6	-59.0	1	0	3	26.0
1-3	Flash Mixer	82.0	356.8	2.7	356.8	-59.0	1	0	3	26.0
1-4	Flash Mixer	82.0	352.5	2.7	352.5	-58.9	1	0	3	26.1
2-1	Mixer	82.0	398.2	2.7	398.2	-60.0	1	0	3	25.0
2-2	Mixer	82.0	390.1	2.7	390.1	-59.8	1	0	3	25.2
2-3	Mixer	82.0	381.5	2.7	381.5	-59.6	1	0	3	25.4
2-4	Mixer	82.0	373.4	2.7	373.4	-59.4	1	0	3	25.6
2-5	Mixer	82.0	373.4	2.7	373.4	-59.4	1	0	3	25.6
2-6	Mixer	82.0	356.7	2.7	356.7	-59.0	1	0	3	26.0
2-7	Mixer	82.0	348.2	2.7	348.2	-58.8	1	0	3	26.2
2-8	Mixer	82.0	340.1	2.7	340.1	-58.6	1	0	3	26.4
2-9	Mixer	82.0	331.6	2.7	331.6	-58.4	1	0	3	26.6
2-10	Mixer	82.0	323.4	2.7	323.4	-58.2	1	0	3	26.8
2-11	Mixer	82.0	315.0	2.7	315.0	-58.0	1	0	3	27.0
2-12	Mixer	82.0	306.9	2.7	306.9	-57.7	1	0	3	27.3
2-13	Mixer	82.0	396.9	2.7	396.9	-60.0	1	0	3	25.0
2-14	Mixer	82.0	388.7	2.7	388.7	-59.8	1	0	3	25.2
2-15	Mixer	82.0	380.1	2.7	380.2	-59.6	1	0	3	25.4
2-16	Mixer	82.0	372.0	2.7	372.0	-59.4	1	0	3	25.6
2-17	Mixer	82.0	363.4	2.7	363.4	-59.2	1	0	3	25.8
2-18	Mixer	82.0	355.2	2.7	355.2	-59.0	1	0	3	26.0
2-19	Mixer	82.0	346.7	2.7	346.7	-58.8	1	0	3	26.2
2-20	Mixer	82.0	338.5	2.7	338.5	-58.6	1	0	3	26.4
2-21	Mixer	82.0	330.0	2.7	330.0	-58.4	1	0	3	26.6
2-22	Mixer	82.0	321.8	2.7	321.8	-58.2	1	0	3	26.8
2-23	Mixer	82.0	313.3	2.7	313.3	-57.9	1	0	3	27.1
2-24	Mixer	82.0	305.1	2.7	305.1	-57.7	1	0	3	27.3
4-1	Ventilation fan	84.0	345.9	2.7	345.9	-58.8	1	0	3	28.2
4-2	Blower	83.0	345.9	2.7	345.9	-58.8	1	0	3	27.2
4-3	Blower	83.0	345.9	2.7	345.9	-58.8	1	0	3	27.2
4-4	After Cooler	84.0	345.9	2.7	345.9	-58.8	1	0	3	28.2
4-5	After Cooler	84.0	345.9	2.7	345.9	-58.8	1	0	3	28.2
4-6	Vaccum blower discharge silence	84.0	345.9	2.7	345.9	-58.8	1	0	3	28.2
4-7	Vaccum blower discharge silence	84.0	345.9	2.7	345.9	-58.8	1	0	3	28.2
4-8	Oxygen Compressor	84.0	345.9	2.7	345.9	-58.8	1	0	3	28.2
4-9	Oxygen Compressor	84.0	345.9	2.7	345.9	-58.8	1	0	3	28.2
4-10	Oxygen Buffer Tank (outdoors)	84.0	345.9	2.7	345.9	-58.8	1	0	3	28.2
4-11	Oxygen Buffer Tank (outdoors)	84.0	345.9	2.7	345.9	-58.8	1	0	3	28.2
5-1	Blower	83.0	351.1	2.7	351.1	-58.9	1	0	3	27.1
5-2	Blower	83.0	351.1	2.7	351.1	-58.9	1	0	3	27.1
6-1	Ventilation fan	84.0	257.6	2.7	257.6	-56.2	1	0	3	30.8
6-2	Ventilation fan	84.0	257.6	2.7	257.6	-56.2	1	0	3	30.8
7-1	Blower	83.0	261.2	2.7	261.3	-56.3	1	0	3	29.7
7-2	Blower	83.0	261.2	2.7	261.3	-56.3	1	0	3	29.7
9-1	Mixer	82.0	537.4	2.7	537.4	-62.6	1	0	3	22.4
9-2	Mixer	82.0	432.0	2.7	432.0	-60.7	1	0	3	24.3
9-3	Mixer	82.0	424.8	2.7	424.8	-60.6	1	0	3	24.4
9-4	Mixer	82.0	417.5	2.7	417.5	-60.4	1	0	3	24.6
9-5	Mixer	82.0	439.8	2.7	439.8	-60.9	1	0	3	24.1
9-6	Mixer	82.0	432.5	2.7	432.5	-60.7	1	0	3	24.3
9-7	Mixer	82.0	425.3	2.7	425.3	-60.6	1	0	3	24.4
9-8	Mixer	82.0	418.1	2.7	418.1	-60.4	1	0	3	24.6
10-1	Under-Water Pump	85.0	295.5	2.7	295.5	-57.4	1	0	3	30.6
11-1	Chiller	84.0	204.2	2.7	204.2	-54.2	1	0	3	32.8
11-2	Chiller	84.0	204.2	2.7	204.2	-54.2	1	0	3	32.8
11-3	Cooling Tower	84.0	204.2	2.7	204.2	-54.2	1	0	3	32.8
11-4	Cooling Tower	84.0	204.2	2.7	204.2	-54.2	1	0	3	32.8
12-1	Pump Gallery	83.0	485.4	2.7	485.5	-61.7	2	0	3	27.3
13-1	Pump Gallery	83.0	492.4	2.7	492.4	-61.8	2	0	3	27.2
13-2	Pump Gallery	83.0	471.3	2.7	471.3	-61.5	2	0	3	27.5
13-3	Pump Gallery	83.0	479.8	2.7	479.8	-61.6	2	0	3	27.4
13-4	Pump Gallery	83.0	466.8	2.7	466.8	-61.4	2	0	3	27.6
14-1	Mixer	82.0	379.6	2.7	379.6	-59.6	1	0	3	25.4
Existing Plants										
E-1	Sludge Tank	75.9	335.2	2.7	335.2	-58.5	1	0	3	20.4
E-2	Sludge Treatment Room Ventilation Exhaust	75.9	310.6	2.7	310.6	-57.8	1	0	3	21.1
E-3	Sludge Treatment House at Entrance Opening	75.9	286.4	2.7	286.4	-57.1	1	0	3	21.8
E-4	North Pump Room at Entrance Opening	75.9	263.2	2.7	263.2	-56.4	1	0	3	22.5
E-5	Acceleration Tank Control Room at Entrance Opening	86.8	268.4	2.7	268.4	-56.6	1	-10	3	23.2
E-7	Sludge Treatment Room (Opening at Main Entrance)	82.0	244.4	2.7	244.4	-55.8	1	0	3	29.2
E-8	North Pump Room	96.4	268.2	2.7	268.2	-56.6	1	0	3	42.8
E-9	Acceleration Tank Control Room	77.4	399.0	2.7	399.0	-60.0	1	0	3	20.4
E-10	Acceleration Tank*	88.3	435.7	2.7	435.7	-60.8	1	0	3	30.6
E-11	Acceleration Tank*	88.3	450.2	2.7	450.2	-61.1	1	0	3	30.3
E-12	Acceleration Tank*	88.3	387.9	2.7	387.9	-59.8	1	0	3	31.6
E-13	Chemical House VentilationExhaust	88.3	445.5	2.7	445.5	-61.0	1	0	3	30.4
E-14	Chemical House Battery House at Entrance Opening	88.3	349.5	2.7	349.5	-58.9	1	0	3	32.5
E-15	Acceleration Tank*	88.3	411.8	2.7	411.8	-60.3	1	0	3	31.0
E-16	Chemical House (Ventilation)	89.2	483.9	2.7	483.9	-61.7	1	-10	3	20.5
E-17	Chemical House (Battery House)	89.5	412.4	2.7	412.4	-60.3	1	-10	3	22.2
SCL (TAW - HUH)										
EWL-1	Ventilation Shaft	88.0	268.7	0	268.7	-56.6	1	-10	3	24.4
EWL-2	Ventilation Shaft	81.0	253.1	0	253.1	-56.1	1	-10	3	17.9
EWL-3	Ventilation Shaft	81.0	250.2	0	250.2	-56.0	1	-10	3	18.0
EWL-4	Ventilation Shaft	81.0	268.8	0	268.8	-56.6	1	-10	3	17.4
EWL-5	Ventilation Shaft	82.0	260.8	0	260.8	-56.3	1	-10	3	18.7

Note: *Included the Middle and side motors of the Acceleration Tank

Existing Plants	44.6
New Plants	45.8
SCL (TAW - HUH)	27.3
Cumulative Total:	48.3

Appendix 5.8 Calculation of Fixed Plant Noise

NSR HK7

ID	Item	SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
New Plants										
1-1	Flash Mixer	82.0	478.6	6.6	478.7	-61.6	1	0	3	23.4
1-2	Flash Mixer	82.0	474.4	6.6	474.5	-61.5	1	0	3	23.5
1-3	Flash Mixer	82.0	477.3	6.6	477.4	-61.6	1	0	3	23.4
1-4	Flash Mixer	82.0	473.1	6.6	473.2	-61.5	1	0	3	23.5
2-1	Mixer	82.0	517.3	6.6	517.3	-62.3	1	0	3	22.7
2-2	Mixer	82.0	509.2	6.6	509.2	-62.1	1	0	3	22.9
2-3	Mixer	82.0	500.8	6.6	500.9	-62.0	1	0	3	23.0
2-4	Mixer	82.0	492.9	6.6	492.9	-61.9	1	0	3	23.1
2-5	Mixer	82.0	492.9	6.6	492.9	-61.9	1	0	3	23.1
2-6	Mixer	82.0	476.5	6.6	476.5	-61.6	1	0	3	23.4
2-7	Mixer	82.0	468.1	6.6	468.2	-61.4	1	0	3	23.6
2-8	Mixer	82.0	460.1	6.6	460.2	-61.3	1	0	3	23.7
2-9	Mixer	82.0	451.8	6.6	451.9	-61.1	1	0	3	23.9
2-10	Mixer	82.0	443.8	6.6	443.9	-60.9	1	0	3	24.1
2-11	Mixer	82.0	435.5	6.6	435.5	-60.8	1	0	3	24.2
2-12	Mixer	82.0	427.6	6.6	427.6	-60.6	1	0	3	24.4
2-13	Mixer	82.0	515.4	6.6	515.4	-62.2	1	0	3	22.8
2-14	Mixer	82.0	507.3	6.6	507.3	-62.1	1	0	3	22.9
2-15	Mixer	82.0	498.9	6.6	498.9	-62.0	1	0	3	23.0
2-16	Mixer	82.0	490.8	6.6	490.9	-61.8	1	0	3	23.2
2-17	Mixer	82.0	482.4	6.6	482.4	-61.7	1	0	3	23.3
2-18	Mixer	82.0	474.4	6.6	474.4	-61.5	1	0	3	23.5
2-19	Mixer	82.0	466.0	6.6	466.0	-61.4	1	0	3	23.6
2-20	Mixer	82.0	458.0	6.6	458.0	-61.2	1	0	3	23.8
2-21	Mixer	82.0	449.6	6.6	449.6	-61.1	1	0	3	23.9
2-22	Mixer	82.0	441.6	6.6	441.6	-60.9	1	0	3	24.1
2-23	Mixer	82.0	433.2	6.6	433.3	-60.7	1	0	3	24.3
2-24	Mixer	82.0	425.2	6.6	425.3	-60.6	1	0	3	24.4
4-1	Ventilation fan	84.0	460.9	6.6	461.0	-61.3	1	0	3	25.7
4-2	Blower	83.0	460.9	6.6	461.0	-61.3	1	0	3	24.7
4-3	Blower	83.0	460.9	6.6	461.0	-61.3	1	0	3	24.7
4-4	After Cooler	84.0	460.9	6.6	461.0	-61.3	1	0	3	25.7
4-5	After Cooler	84.0	460.9	6.6	461.0	-61.3	1	0	3	25.7
4-6	Vaccum blower discharge silence	84.0	460.9	6.6	461.0	-61.3	1	0	3	25.7
4-7	Vaccum blower discharge silence	84.0	460.9	6.6	461.0	-61.3	1	0	3	25.7
4-8	Oxygen Compressor	84.0	460.9	6.6	461.0	-61.3	1	0	3	25.7
4-9	Oxygen Compressor	84.0	460.9	6.6	461.0	-61.3	1	0	3	25.7
4-10	Oxygen Buffer Tank (outdoors)	84.0	460.9	6.6	461.0	-61.3	1	0	3	25.7
4-11	Oxygen Buffer Tank (outdoors)	84.0	460.9	6.6	461.0	-61.3	1	0	3	25.7
5-1	Blower	83.0	461.0	6.6	461.0	-61.3	1	0	3	24.7
5-2	Blower	83.0	461.0	6.6	461.0	-61.3	1	0	3	24.7
6-1	Ventilation fan	84.0	367.6	6.6	367.7	-59.3	1	0	3	27.7
6-2	Ventilation fan	84.0	367.6	6.6	367.7	-59.3	1	0	3	27.7
7-1	Blower	83.0	380.9	6.6	381.0	-59.6	1	0	3	26.4
7-2	Blower	83.0	380.9	6.6	381.0	-59.6	1	0	3	26.4
9-1	Mixer	82.0	648.9	6.6	648.9	-64.2	1	0	3	20.8
9-2	Mixer	82.0	540.6	6.6	540.7	-62.7	1	0	3	22.3
9-3	Mixer	82.0	533.4	6.6	533.4	-62.5	1	0	3	22.5
9-4	Mixer	82.0	526.1	6.6	526.2	-62.4	1	0	3	22.6
9-5	Mixer	82.0	547.5	6.6	547.6	-62.8	1	0	3	22.2
9-6	Mixer	82.0	540.3	6.6	540.3	-62.7	1	0	3	22.3
9-7	Mixer	82.0	533.0	6.6	533.1	-62.5	1	0	3	22.5
9-8	Mixer	82.0	525.8	6.6	525.8	-62.4	1	0	3	22.6
10-1	Under-Water Pump	85.0	418.7	6.6	418.8	-60.4	1	0	3	27.6
11-1	Chiller	84.0	323.9	6.6	323.9	-58.2	1	0	3	28.8
11-2	Chiller	84.0	323.9	6.6	323.9	-58.2	1	0	3	28.8
11-3	Cooling Tower	84.0	323.9	6.6	323.9	-58.2	1	0	3	28.8
11-4	Cooling Tower	84.0	323.9	6.6	323.9	-58.2	1	0	3	28.8
12-1	Pump Gallery	83.0	608.3	6.6	608.3	-63.7	2	0	3	25.3
13-1	Pump Gallery	83.0	613.7	6.6	613.8	-63.8	2	0	3	25.3
13-2	Pump Gallery	83.0	592.8	6.6	592.9	-63.5	2	0	3	25.6
13-3	Pump Gallery	83.0	600.3	6.6	600.3	-63.6	2	0	3	25.4
13-4	Pump Gallery	83.0	587.4	6.6	587.5	-63.4	2	0	3	25.6
14-1	Mixer	82.0	503.0	6.6	503.1	-62.0	1	0	3	23.0
Existing Plants										
E-1	Sludge Tank	75.9	448.1	6.6	448.2	-61.0	1	0	3	17.9
E-2	Sludge Treatment Room Ventilation Exhaust	75.9	422.0	6.6	422.1	-60.5	1	0	3	18.4
E-3	Sludge Treatment House at Entrance Opening	75.9	396.0	6.6	396.0	-60.0	1	0	3	19.0
E-4	North Pump Room at Entrance Opening	75.9	370.5	6.6	370.6	-59.4	1	0	3	19.5
E-5	Acceleration Tank Control Room at Entrance Opening	86.8	379.6	6.6	379.6	-59.6	1	-10	3	20.2
E-7	Sludge Treatment Room (Opening at Main Entrance)	82.0	354.6	6.6	354.6	-59.0	1	0	3	26.0
E-8	North Pump Room	96.4	391.9	6.6	392.0	-59.9	1	0	3	39.5
E-9	Acceleration Tank Control Room	77.4	522.7	6.6	522.8	-62.4	1	0	3	18.0
E-10	Acceleration Tank*	88.3	556.2	6.6	556.2	-62.9	1	0	3	28.4
E-11	Acceleration Tank*	88.3	573.3	6.6	573.3	-63.2	1	0	3	28.2
E-12	Acceleration Tank*	88.3	510.6	6.6	510.7	-62.2	1	0	3	29.2
E-13	Chemical House Ventilation Exhaust	88.3	569.2	6.6	569.3	-63.1	1	0	3	28.2
E-14	Chemical House Battery House at Entrance Opening	88.3	473.2	6.6	473.2	-61.5	1	0	3	29.8
E-15	Acceleration Tank*	88.3	534.8	6.6	534.8	-62.6	1	0	3	28.8
E-16	Chemical House (Ventilation)	89.2	601.9	6.6	601.9	-63.6	1	-10	3	18.6
E-17	Chemical House (Battery House)	89.5	529.8	6.6	529.9	-62.5	1	-10	3	20.0
SCL (TAW - HUH)										
EWL-1	Ventilation Shaft	96.0	342.5	0	342.5	-58.7	1	-10	3	30.3
EWL-2	Ventilation Shaft	89.0	325.5	0	325.5	-58.3	1	-10	3	23.7
EWL-3	Ventilation Shaft	89.0	327.6	0	327.6	-58.3	1	-10	3	23.7
EWL-4	Ventilation Shaft	89.0	347.9	0	347.9	-58.8	1	-10	3	23.2
EWL-5	Ventilation Shaft	90.0	337.0	0	337.0	-58.6	1	-10	3	24.4

Note: *Included the Middle and side motors of the Acceleration Tank

Existing Plants	41.6
New Plants	43.0
SCL (TAW - HUH)	33.1
Cumulative Total:	46.6

Appendix 5.8 Calculation of Fixed Plant Noise

NSR

HK8

ID	Item	SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
New Plants										
1-1	Flash Mixer	82.0	245.3	21.4	246.2	-55.8	1	0	3	29.2
1-2	Flash Mixer	82.0	241.8	21.4	242.7	-55.7	1	0	3	29.3
1-3	Flash Mixer	82.0	242.7	21.4	243.7	-55.7	1	0	3	29.3
1-4	Flash Mixer	82.0	239.2	21.4	240.1	-55.6	1	0	3	29.4
2-1	Mixer	82.0	274.5	21.4	275.3	-56.8	1	0	3	28.2
2-2	Mixer	82.0	267.1	21.4	268.0	-56.6	1	0	3	28.4
2-3	Mixer	82.0	259.7	21.4	260.6	-56.3	1	0	3	28.7
2-4	Mixer	82.0	252.7	21.4	253.6	-56.1	1	0	3	28.9
2-5	Mixer	82.0	252.7	21.4	253.6	-56.1	1	0	3	28.9
2-6	Mixer	82.0	238.5	21.4	239.4	-55.6	1	0	3	29.4
2-7	Mixer	82.0	231.4	21.4	232.3	-55.3	1	0	3	29.7
2-8	Mixer	82.0	224.6	21.4	225.6	-55.1	1	0	3	29.9
2-9	Mixer	82.0	217.7	21.4	218.8	-54.8	1	0	3	30.2
2-10	Mixer	82.0	211.2	21.4	212.3	-54.5	1	0	3	30.5
2-11	Mixer	82.0	204.5	21.4	205.6	-54.3	1	0	3	30.7
2-12	Mixer	82.0	198.3	21.4	199.5	-54.0	1	0	3	31.0
2-13	Mixer	82.0	270.7	21.4	271.6	-56.7	1	0	3	28.3
2-14	Mixer	82.0	263.4	21.4	264.3	-56.4	1	0	3	28.6
2-15	Mixer	82.0	265.8	21.4	266.7	-56.2	1	0	3	28.8
2-16	Mixer	82.0	248.6	21.4	249.5	-55.9	1	0	3	29.1
2-17	Mixer	82.0	241.2	21.4	242.1	-55.7	1	0	3	29.3
2-18	Mixer	82.0	234.1	21.4	235.1	-55.4	1	0	3	29.6
2-19	Mixer	82.0	226.8	21.4	227.8	-55.2	1	0	3	29.8
2-20	Mixer	82.0	220.0	21.4	221.0	-54.9	1	0	3	30.1
2-21	Mixer	82.0	212.9	21.4	214.0	-54.6	1	0	3	30.4
2-22	Mixer	82.0	206.3	21.4	207.4	-54.3	1	0	3	30.7
2-23	Mixer	82.0	199.5	21.4	200.6	-54.0	1	0	3	31.0
2-24	Mixer	82.0	193.1	21.4	194.3	-53.8	1	0	3	31.2
4-1	Ventilation fan	84.0	210.0	21.4	211.1	-54.5	1	0	3	32.5
4-2	Blower	83.0	210.0	21.4	211.1	-54.5	1	0	3	31.5
4-3	Blower	83.0	210.0	21.4	211.1	-54.5	1	0	3	31.5
4-4	After Cooler	84.0	210.0	21.4	211.1	-54.5	1	0	3	32.5
4-5	After Cooler	84.0	210.0	21.4	211.1	-54.5	1	0	3	32.5
4-6	Vaccum blower discharge silence	84.0	210.0	21.4	211.1	-54.5	1	0	3	32.5
4-7	Vaccum blower discharge silence	84.0	210.0	21.4	211.1	-54.5	1	0	3	32.5
4-8	Oxygen Compressor	84.0	210.0	21.4	211.1	-54.5	1	0	3	32.5
4-9	Oxygen Compressor	84.0	210.0	21.4	211.1	-54.5	1	0	3	32.5
4-10	Oxygen Buffer Tank (outdoors)	84.0	210.0	21.4	211.1	-54.5	1	0	3	32.5
4-11	Oxygen Buffer Tank (outdoors)	84.0	210.0	21.4	211.1	-54.5	1	0	3	32.5
5-1	Blower	83.0	202.7	21.4	203.9	-54.2	1	0	3	31.8
5-2	Blower	83.0	202.7	21.4	203.9	-54.2	1	0	3	31.8
6-1	Ventilation fan	84.0	112.7	21.4	114.8	-49.2	1	0	3	37.8
6-2	Ventilation fan	84.0	112.7	21.4	114.8	-49.2	1	0	3	37.8
7-1	Blower	83.0	152.3	21.4	153.8	-51.7	1	0	3	34.3
7-2	Blower	83.0	152.3	21.4	153.8	-51.7	1	0	3	34.3
9-1	Mixer	82.0	531.7	21.4	532.2	-62.5	1	0	3	22.5
9-2	Mixer	82.0	280.7	21.4	281.5	-57.0	1	0	3	28.0
9-3	Mixer	82.0	273.5	21.4	274.3	-56.8	1	0	3	28.2
9-4	Mixer	82.0	266.3	21.4	267.1	-56.5	1	0	3	28.5
9-5	Mixer	82.0	287.1	21.4	287.9	-57.2	1	0	3	27.8
9-6	Mixer	82.0	279.9	21.4	280.7	-57.0	1	0	3	28.0
9-7	Mixer	82.0	272.7	21.4	273.5	-56.7	1	0	3	28.3
9-8	Mixer	82.0	265.5	21.4	266.3	-56.5	1	0	3	28.5
10-1	Under-Water Pump	85.0	212.6	21.4	213.7	-54.6	1	0	3	33.4
11-1	Chiller	84.0	109.2	21.4	111.2	-48.9	1	0	3	38.1
11-2	Chiller	84.0	109.2	21.4	111.2	-48.9	1	0	3	38.1
11-3	Cooling Tower	84.0	109.2	21.4	111.2	-48.9	1	0	3	38.1
11-4	Cooling Tower	84.0	109.2	21.4	111.2	-48.9	1	0	3	38.1
12-1	Pump Gallery	83.0	382.4	21.4	383.0	-59.7	2	0	3	29.3
13-1	Pump Gallery	83.0	376.9	21.4	377.5	-59.5	2	0	3	29.5
13-2	Pump Gallery	83.0	357.6	21.4	358.3	-59.1	2	0	3	29.9
13-3	Pump Gallery	83.0	360.0	21.4	360.6	-59.1	2	0	3	29.9
13-4	Pump Gallery	83.0	348.4	21.4	349.0	-58.9	2	0	3	30.2
14-1	Mixer	82.0	290.2	21.4	291.0	-57.3	1	0	3	27.7
Existing Plants										
		SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
E-1	Sludge Tank	75.9	344.1	21.4	344.8	-58.8	1	0	3	20.2
E-2	Sludge Treatment Room Ventilation Exhaust	75.9	328.5	21.4	329.2	-58.3	1	0	3	20.6
E-3	Sludge Treatment House at Entrance Opening	75.9	314.6	21.4	315.4	-58.0	1	0	3	20.9
E-4	North Pump Room at Entrance Opening	75.9	302.7	21.4	303.5	-57.6	1	0	3	21.3
E-5	Acceleration Tank Control Room at Entrance Opening	86.8	295.1	21.4	295.8	-57.4	1	-10	3	22.4
E-7	Sludge Treatment Room (Opening at Main Entrance)	82.0	280.0	21.4	280.8	-57.0	1	0	3	28.0
E-8	North Pump Room	96.4	212.9	21.4	213.9	-54.6	1	0	3	44.8
E-9	Acceleration Tank Control Room	77.4	324.2	21.4	324.9	-58.2	1	0	3	22.2
E-10	Acceleration Tank*	88.3	397.2	21.4	397.7	-60.0	1	0	3	31.3
E-11	Acceleration Tank*	88.3	387.8	21.4	388.4	-59.8	1	0	3	31.6
E-12	Acceleration Tank*	88.3	334.5	21.4	335.2	-58.5	1	0	3	32.8
E-13	Chemical House Ventilation Exhaust	88.3	362.2	21.4	362.9	-59.2	1	0	3	32.1
E-14	Chemical House Battery House at Entrance Opening	88.3	273.0	21.4	273.8	-56.8	1	0	3	34.6
E-15	Acceleration Tank*	88.3	313.4	21.4	314.1	-57.9	1	0	3	33.4
E-16	Chemical House (Ventilation)	89.2	456.0	21.4	456.5	-61.2	1	-10	3	21.0
E-17	Chemical House (Battery House)	89.5	281.9	21.4	282.7	-57.0	1	-10	3	25.5
SCL (TAW - HUH)										
		Max. SWL	Hori Dist.	Vert. Dist	Slant Dist.	Distance Attenuation	No. of Plant	Screening Corr.	Façade Corr.	Corrected Noise Level
EWL-1	Ventilation Shaft	88.0	368.2	0	368.2	-59.3	1	-10	3	21.7
EWL-2	Ventilation Shaft	81.0	357.1	0	357.1	-59.1	1	-5	3	19.9
EWL-3	Ventilation Shaft	81.0	348.1	0	348.1	-58.8	1	0	3	25.2
EWL-4	Ventilation Shaft	81.0	361.5	0	361.5	-59.2	1	-10	3	14.8
EWL-5	Ventilation Shaft	82.0	358.7	0	358.7	-59.1	1	0	3	25.9

Note: *Included the Middle and side motors of the Acceleration Tank

Existing Plants	46.4
New Plants	50.1
SCL (TAW - HUH)	30.0
Cumulative Total:	51.7