

## **VOLUME IIA**

### **APPENDIX 9A**

#### ***Updated Tables – May 2015***

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Table 9.2.6-2 Burgettstown Baseline Sound Level Monitoring Results at NSAs							
NSA	Approximate Distance from Compressor Building to NSA, feet	Direction	Meas. Pos.	Duration HRS/MIN	Daytime <sup>1</sup> L <sub>eq</sub> , dBA	Nighttime L <sub>eq</sub> , dBA	L <sub>dn</sub> , dBA
1	1,980	South	MP 1	22:17	50.7	48.7	55.4
2	2,380	Southwest	MP 2	22:30	46.9	44.6	51.4
3	1,130	Northwest	MP 3	22:31	47.8	48.3	54.6
4	4,280	East	MP 4	22:28	53.3	49.8	56.9

<sup>1</sup> Daytime is considered as the time between 7:00 a.m. and 10:00 p.m. and nighttime is considered from 10:00 p.m. until 7:00 a.m. the following day.

Table 9.2.6-4 Burgettstown Station Compressor Station Sound Level Predictions						
All levels are A-weighted decibels, dBA						
NSA	Distance from Compressor Building to NSA (feet)	Direction	Existing L <sub>dn</sub>	Predicted L <sub>dn</sub> Contribution of Station	Combined Predicted Station plus Existing L <sub>dn</sub>	Potential Increase Above Existing L <sub>dn</sub>
1	1,980	South	55.4	45.8	55.9	0.5
2	2,380	Southwest	51.4	33.1	51.5	0.1
3	1,130	Northwest	54.6	44.3	55.0	0.4
4	4,280	East	56.9	37.4	56.9	0.0

Table 9.2.6-5 Burgettstown Modeled Noise Control Treatments										
Modeled Dynamic Insertion Loss (DIL) or Transmission Loss (TL) in Decibels										
Source	Treatment Description	Modeled Treatment Performance								
		31.5	63	125	250	500	1k	2k	4k	8k
Compressor Building Walls and Roof	STC 45 System TL	12	15	20	32	46	48	52	52	53
Compressor Building Walk Doors	Man Door, STC-32, TL	12	17	23	27	32	32	31	41	41
Compressor Building Equipment Doors	Roll up door, single, TL	2	7	12	17	18	19	22	30	35
Compressor Building Ventilation	Generic 3ft Silencer Perf., DIL	2	6	10	15	25	30	30	25	15
3520 Exhaust	Silencer, DIL	20	28	40	45	45	43	42	44	46
Additional Treatments and Targets:										
Exhaust System Breakout:	Exhaust system breakout contribution of <b>75 dB(A)</b> at 12 feet from the stack base for each unit.									
Fuel Gas Skid:	Treatment equivalent of 15 dB reduction. This is comparable to the Whisper Trim package for the fuel gas skid valves.									

Table 9.2.8-2 Mainline CS 2 Baseline Sound Level Monitoring Results at NSAs							
NSA	Approximate Distance from Compressor Building to NSA, feet	Direction	Meas. Pos.	Duration HRS/MIN	Daytime <sup>1</sup> L <sub>eq</sub> , dBA	Nighttime L <sub>eq</sub> , dBA	L <sub>dn</sub> , dBA
1	1,230	East	MP 1	22:03	62.5	54.6	62.5
2	1,830	Northeast	MP 2	22:06	55.2	47.1	56.0
3	3,160	North	MP 3	22:14	53.1	44.3	53.6
4	3,100	Southwest	MP 1	22:03	62.5	54.6	62.5
<sup>1</sup> Daytime is considered as the time between 7:00 a.m. and 10:00 p.m. and nighttime is considered from 10:00 p.m. until 7:00 a.m. the following day.							

<b>Table 9.2.8-4</b> <b>Mainline CS 2 Station Compressor Station Sound Level Predictions</b> <b>All levels are A-weighted decibels, dBA</b>						
NSA	Distance from Compressor Building to NSA (feet)	Direction	Existing L <sub>dn</sub>	Predicted L <sub>dn</sub> Contribution of Station	Combined Predicted Station plus Existing L <sub>dn</sub>	Potential Increase Above Existing L <sub>dn</sub>
1	1,230	East	62.5	51.9	62.9	0.4
2	1,830	Northeast	56.0	46.8	56.5	0.5
3	3,160	North	53.6	40.8	53.8	0.2
4	3,100	Southwest	62.5	42.1	62.5	0.0

<b>Table 9.2.8-5</b> <b>Mainline CS 2 Modeled Noise Control Treatments</b> Modeled Dynamic Insertion Loss (DIL) or Transmission Loss (TL) in Decibels										
Source	Treatment Description	Modeled Treatment Performance								
		31.5	63	125	250	500	1k	2k	4k	8k
Compressor Building Walls and Roof	STC 45 System TL	12	15	20	32	46	48	52	52	53
Compressor Building Walk Doors	Man Door, STC-32, TL	12	17	23	27	32	32	31	41	41
Compressor Building Equipment Doors	Roll up door, single, TL	2	7	12	17	18	19	22	30	35
Compressor Building Ventilation	Generic 3ft Silencer Perf., DIL	2	6	10	15	25	30	30	25	15
3616 Exhaust	Silencer, DIL	20	28	40	45	45	43	42	44	46
CM34 Exhaust	Silencer, DIL	22	31	45	50	50	47	46	47	48
3616 Intake	Intake and Filter DIL	2	5	8	14	25	35	35	30	25
CM34 Intake	Intake and Filter DIL	8	21	28	31	40	48	53	69	30
Additional Treatments and Targets:										
Exhaust System Breakout:	Exhaust system breakout contribution of 70 dB(A) at 12 feet from the stack base for each unit.									
Fuel Gas Skid:	Treatment equivalent of 15 dB reduction. This is comparable to the Whisper Trim package for the fuel gas skid valves.									
Suction and Discharge Piping (General, including headers):	Treatment equivalent of 10 dB reduction. This may be achievable through a variety of piping treatments.									
Utility Coolers:	Treatment equivalent of 4.6 dB reduction. This may be achievable by reducing fan speed by 25% at night, or other possible fan treatments.									

Table 9.2.11				
Compressor Station Blowdown Sound Level Predictions				
Station Number	Station	Blowdown Silencer Performance Target Allowable Maximum A-weighted Sound Pressure Level at 300' from Silencer During Blowdown Event	NSA	Estimated Contribution of Blowdown, Leq dBA
1	Sherwood	70	1	17.7
			2	25.5
			3	27.8
			4	35.1
			5	11.5
2	Seneca	65	1	22.5
			2	39.8
			3	37.7
			4	55.0
			5	18.5
			6	24.3
			7	45.4
3	Clarington	75	1	54.9
			2	51.4
			3	27.1
			4	47.7
4	Majorsville	75	1	43.0
			2	14.9
			3	48.7
			4	40.0
5	Cadiz	75	1	45.2
			2	47.7
			3	42.2
6	Burgettstown	75	1	42.2
			2	35.0
			3	53.1
			4	44.1
7	Mainline CS 1	75	1	44.5
			2	39.9
			3	56.6
			4	53.7
			5	51.2
8	Mainline CS 2	65	1	53.2
			2	50.1
			3	43.6
			4	33.4
9	Mainline CS 3	60	1	57.6
			2	48.7
			3	40.2
			4	33.6
			5	23.7
			6	28.5
			7	36.1
10	Defiance	65	1	46.0
			2	53.7
			3	44.4
			4	45.7

Station Number	Station	NSA	Maximum Temporary Construction Noise Contribution, Leq, dBA
1	Sherwood	1	21.5
		2	32.9
		3	34.4
		4	38.8
		5	15.5
2	Seneca	1	34.2
		2	49.4
		3	46.3
		4	46.7
		5	25.7
		6	34.0
		7	64.2
3	Clarington	1	56.7
		2	51.0
		3	24.8
		4	46.6
4	Majorsville	1	40.1
		2	14.0
		3	46.9
		4	36.6
5	Cadiz	1	43.2
		2	45.5
		3	40.8
6	Burgettstown	1	52.8
		2	35.1
		3	48.1
		4	42.7
7	Mainline CS 1	1	63.6
		2	61.5
		3	57.1
		4	43.9
		5	50.5
8	Mainline CS 2	1	58.4
		2	54.0
		3	46.9
		4	47.0
9	Mainline CS 3	1	63.6
		2	58.5
		3	51.5
		4	44.9
		5	41.5
		6	39.6
		7	46.8
10	Defiance	1	52.9
		2	64.4
		3	54.5
		4	55.5