



Tower Power Station

License Number: 5357

License Holder: EDL CSM (NSW) PTY LTD

Licensee Address: Tower Coal Seam Methane Power Station
Douglas Park Drive
Douglas Park NSW 2569

Month: FY 2018-19

Frequency: Continuous monitoring for ambient NOx, O3 (taken off site) and point source NO3 air emissions;
Spot sampling weekly during discharge for First Flush pH and, oil and grease (O&G);
Spot sampling monthly for Process Water Effluent O&G, pH;
Volume monitoring daily for waste water discharges.

Month	Location of monitoring point	Sampled	Obtained	Published	Pollutant	Units	Monitoring Frequency (Licence)	Licence Limit	Measurement during month	Min	Mean	Max	Exceedance (Yes/No)
Jul-18	Point 10 - Ambient air and weather monitoring station		8/08/18	22/08/18	NOx	ppb	Continuous		Continuous	1	11	65	
			8/08/18	22/08/18	O3	ppb	Continuous		Continuous	-1	19	31	
	Point 11 - Air emissions monitoring		30/07/18	1/08/18	NOx	ppm	Continuous	2132g/min	Continuous	<2132g/min			No
	Point 8 - First Flush Effluent quality monitoring		30/07/18	1/08/18	O&G	mg/L	Weekly during any discharge		0				
			30/07/18	1/08/18	pH		Weekly during any discharge		0				
		2/07/18	23/07/18	1/08/18	TSS	mg/L	Not required		0				
		2/07/18	23/07/18	1/08/18	Salinity	ppt	Not required		0				
	Point 9 - Process Water Effluent quality monitoring	2/07/18	23/07/18	1/08/18	O&G	mg/L	Monthly		1	<5			
		2/07/18	23/07/18	1/08/18	pH		Monthly		1	7.35			
		2/07/18	23/07/18	1/08/18	TDS	mg/L	Not required		1	147			
2/07/18		23/07/18	1/08/18	TSS	mg/L	Not required		1	2				
2/07/18		23/07/18	1/08/18	Salinity	ppt	Not required		1	0.176				
Aug-18	Point 10 - Ambient air and weather monitoring station		12/09/18	14/09/18	NOx	ppb	Continuous		Continuous	1	7	85	
			12/09/18	14/09/18	O3	ppb	Continuous		Continuous	0	21	35	
	Point 11 - Air emissions monitoring		3/09/18	14/09/18	NOx	ppm	Continuous	2132g/min	Continuous	<2132g/min			No
	Point 8 - First Flush Effluent quality monitoring		3/09/18	14/09/18	O&G	mg/L	Weekly during any discharge		1	nil			
			3/09/18	14/09/18	pH		Weekly during any discharge		1	7.1	7.1	7.1	
		2/08/18	29/08/18	14/09/18	TSS	mg/L	Not required		0				
		2/08/18	29/08/18	14/09/18	Salinity	ppt	Not required		0				
	Point 9 - Process Water Effluent quality monitoring	2/08/18	29/08/18	14/09/18	O&G	mg/L	Monthly		1	<5			
		2/08/18	29/08/18	14/09/18	pH		Monthly		1	7.35			
		2/08/18	29/08/18	14/09/18	TDS	mg/L	Not required		1	164			
2/08/18		29/08/18	14/09/18	TSS	mg/L	Not required		1	2				
2/08/18		29/08/18	14/09/18	Salinity	ppt	Not required		1	0.195				
Sep-18	Point 10 - Ambient air and weather monitoring station		12/10/18	22/10/18	NOx	ppb	Continuous		Continuous	1	7	109	
			12/10/18	22/10/18	O3	ppb	Continuous		Continuous	0	21	36	
	Point 11 - Air emissions monitoring		18/10/18	22/10/18	NOx	ppm	Continuous	2132g/min	Continuous	<2132g/min			No
	Point 8 - First Flush Effluent quality monitoring		7/06/19	13/06/19	O&G	mg/L	Weekly during any discharge		1	nil			
			7/06/19	13/06/19	pH		Weekly during any discharge		1	7.1	7.1	7.1	
		4/09/18	21/09/18	10/10/18	TSS	mg/L	Not required		0				
		4/09/18	21/09/18	10/10/18	Salinity	ppt	Not required		0				
	Point 9 - Process Water Effluent quality monitoring	4/09/18	21/09/18	10/10/18	O&G	mg/L	Monthly		1	<5			
		4/09/18	21/09/18	10/10/18	pH		Monthly		1	6.96			
		4/09/18	21/09/18	10/10/18	TDS	mg/L	Not required		1	146			
4/09/18		21/09/18	10/10/18	TSS	mg/L	Not required		1	3				
4/09/18		21/09/18	10/10/18	Salinity	ppt	Not required		1	0.176				
Oct-18	Point 10 - Ambient air and weather monitoring station		12/11/18	15/11/18	NOx	ppb	Continuous		Continuous	1	16	128	
			12/11/18	15/11/18	O3	ppb	Continuous		Continuous	-1	19	49	
	Point 11 - Air emissions monitoring		5/11/18	7/11/18	NOx	ppm	Continuous	2132g/min	Continuous	<2132g/min			No
	Point 8 - First Flush Effluent quality monitoring		7/06/19	13/06/19	O&G	mg/L	Weekly during any discharge		10	nil			
			7/06/19	13/06/19	pH		Weekly during any discharge		10	7.25	7.72	8.1	
		3/10/18	23/10/18	7/11/18	TSS	mg/L	Not required		0				
		3/10/18	23/10/18	7/11/18	Salinity	ppt	Not required		0				
	Point 9 - Process Water Effluent quality monitoring	3/10/18	23/10/18	7/11/18	O&G	mg/L	Monthly		1	<5			
		3/10/18	23/10/18	7/11/18	pH		Monthly		1	7.54			
		3/10/18	23/10/18	7/11/18	TDS	mg/L	Not required		1	150			
3/10/18		23/10/18	7/11/18	TSS	mg/L	Not required		1	1				
3/10/18		23/10/18	7/11/18	Salinity	ppt	Not required		1	0.182				
Nov-18	Point 10 - Ambient air and weather monitoring station		11/12/18	14/11/18	NOx	ppb	Continuous		Continuous	1	10	105	
			11/12/18	14/11/18	O3	ppb	Continuous		Continuous	-3	17	60	
	Point 11 - Air emissions monitoring		29/11/18	14/11/18	NOx	ppm	Continuous	2132g/min	Continuous	<2132g/min			No
	Point 8 - First Flush Effluent quality monitoring		7/06/19	13/06/19	O&G	mg/L	Weekly during any discharge		5	nil			
			7/06/19	13/06/19	pH		Weekly during any discharge		5	6.77	7.72	8.2	
		5/11/18	28/11/18	14/11/18	TSS	mg/L	Not required		0				
		5/11/18	28/11/18	14/11/18	Salinity	ppt	Not required		0				
	Point 9 - Process Water Effluent quality monitoring	5/11/18	28/11/18	14/11/18	O&G	mg/L	Monthly		1	<5			
		5/11/18	28/11/18	14/11/18	pH		Monthly		1	7.16			
		5/11/18	28/11/18	14/11/18	TDS	mg/L	Not required		1	149			
5/11/18		28/11/18	14/11/18	TSS	mg/L	Not required		1	11				
5/11/18		28/11/18	14/11/18	Salinity	ppt	Not required		1	0.18				
Dec-18	Point 10 - Ambient air and weather monitoring station		11/01/19	17/01/19	NOx	ppb	Continuous		Continuous	1	10	138	
			11/01/19	17/01/19	O3	ppb	Continuous		Continuous	0	18	64	
	Point 11 - Air emissions monitoring		3/01/19	17/01/19	NOx	ppm	Continuous	2132g/min	Continuous	<2132g/min			No
	Point 8 - First Flush Effluent quality monitoring		7/06/19	13/06/19	O&G	mg/L	Weekly during any discharge		11	nil			
			7/06/19	13/06/19	pH		Weekly during any discharge		11	6.85	7.31	8	
		4/12/18	17/12/18	21/12/18	TSS	mg/L	Monthly		0				
		4/12/18	17/12/18	21/12/18	Salinity	ppt	Not required		0				
	Point 9 - Process Water Effluent quality monitoring	4/12/18	17/12/18	21/12/18	O&G	mg/L	Monthly		1	<5			
		4/12/18	17/12/18	21/12/18	pH		Monthly		1	6.68			
		4/12/18	17/12/18	21/12/18	TDS	mg/L	Not required		1	104			
4/12/18		17/12/18	21/12/18	TSS	mg/L	Not required		1	13				
4/12/18		17/12/18	21/12/18	Salinity	ppt	Not required		1	0.123				

Note: Point 8 (First Flush) was dry during July. No water sampling conducted.

Note: First flush was empty during sampling

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Jan-19	Point 10 - Ambient air and weather monitoring station	12/02/19	15/02/19	NOx	ppb	Continuous		Continuous	1	12	112		
		12/02/19	15/02/19	O3	ppb	Continuous		Continuous	-1	21	94		
	Point 11 - Air emissions monitoring	14/02/19	15/02/19	NOx	ppm	Continuous	2132g/min	Continuous		<2132g/min		No	
	Point 8 - First Flush Effluent quality monitoring		7/06/19	13/06/19	O&G	mg/L	Weekly during any discharge		9	nil			
			7/06/19	13/06/19	pH		Weekly during any discharge		9	6.51	7.51	8.18	
			3/01/19	1/02/19	15/02/19	TSS	mg/L	Not required	1				
			3/01/19	1/02/19	15/02/19	Salinity	ppt	Not required	1	0.387			
	Point 9 - Process Water Effluent quality monitoring		3/01/19	1/02/19	15/02/19	O&G	mg/L	Monthly	1	<5			
			3/01/19	1/02/19	15/02/19	pH		Monthly	1	6.97			
			3/01/19	1/02/19	15/02/19	TDS	mg/L	Not required	1	165			
		3/01/19	1/02/19	15/02/19	TSS	mg/L	Not required	1	22				
		3/01/19	1/02/19	15/02/19	Salinity	ppt	Not required	1	0.198				
		12/03/19	15/03/19	NOx	ppb	Continuous		Continuous	1	16	145		
		12/03/19	15/03/19	O3	ppb	Continuous		Continuous	-1	18	95		
Feb-19	Point 11 - Air emissions monitoring	10/03/19	15/03/19	NOx	ppm	Continuous	2132g/min	Continuous		<2132g/min		No	
	Point 8 - First Flush Effluent quality monitoring		7/06/19	13/06/19	O&G	mg/L	Weekly during any discharge		3	nil			
			7/06/19	13/06/19	pH		Weekly during any discharge		3	7.18	7.48	7.9	
			6/02/19	27/02/19	15/03/19	TSS	mg/L	Not required	1	4			
			6/02/19	27/02/19	15/03/19	Salinity	ppt	Not required	1	0.297			
	Point 9 - Process Water Effluent quality monitoring		6/02/19	27/02/19	15/03/19	O&G	mg/L	Monthly	1	<5			
			6/02/19	27/02/19	15/03/19	pH		Monthly	1	7.39			
			6/02/19	27/02/19	15/03/19	TDS	mg/L	Not required	1	117			
			6/02/19	27/02/19	15/03/19	TSS	mg/L	Not required	1	19			
			6/02/19	27/02/19	15/03/19	Salinity	ppt	Not required	1	0.143			
		12/04/19	12/04/19	NOx	ppb	Continuous		Continuous	1	12	201		
	12/04/19	12/04/19	O3	ppb	Continuous		Continuous	-2	17	70			
Mar-19	Point 11 - Air emissions monitoring	2/04/19	12/04/19	NOx	ppm	Continuous	2132g/min	Continuous		<2132g/min		No	
	Point 8 - First Flush Effluent quality monitoring		7/06/19	13/06/19	O&G	mg/L	Weekly during any discharge		13	nil			
			7/06/19	13/06/19	pH		Weekly during any discharge		13	6.6	7.42	7.93	
			7/03/19	26/03/19	12/04/19	TSS	mg/L	Not required	0				
			7/03/19	26/03/19	12/04/19	Salinity	ppt	Not required	0				
	Point 9 - Process Water Effluent quality monitoring		7/03/19	26/03/19	12/04/19	O&G	mg/L	Monthly	1	<5			
			7/03/19	26/03/19	12/04/19	pH		Monthly	1	4.26			
			7/03/19	26/03/19	12/04/19	TDS	mg/L	Not required	1	68			
			7/03/19	26/03/19	12/04/19	TSS	mg/L	Not required	1	20			
			7/03/19	26/03/19	12/04/19	Salinity	ppt	Not required	1	0.078			
		10/05/19	13/05/19	NOx	ppb	Continuous		Continuous	1	16	359		
	10/05/19	13/05/19	O3	ppb	Continuous		Continuous	-2	15	68			
Apr-19	Point 11 - Air emissions monitoring	29/04/19	13/05/19	NOx	ppm	Continuous	2132g/min	Continuous		<2132g/min		No	
	Point 8 - First Flush Effluent quality monitoring		7/06/19	13/06/19	O&G	mg/L	Weekly during any discharge		9	nil			
			7/06/19	13/06/19	pH		Weekly during any discharge		9	7.01	7.2	8.4	
			2/04/19	24/04/19	13/05/19	TSS	mg/L	Not required	1	1			
			2/04/19	24/04/19	13/05/19	Salinity	ppt	Not required	1	0.286			
	Point 9 - Process Water Effluent quality monitoring		2/04/19	24/04/19	13/05/19	O&G	mg/L	Monthly	1	<5			
			2/04/19	24/04/19	13/05/19	pH		Monthly	1	7.6			
			2/04/19	24/04/19	13/05/19	TDS	mg/L	Not required	1	374			
			2/04/19	24/04/19	13/05/19	TSS	mg/L	Not required	1	15			
			2/04/19	24/04/19	13/05/19	Salinity	ppt	Not required	1	0.432			
		12/06/19	13/06/19	NOx	ppb	Continuous		Continuous	0	13	188		
	12/06/19	13/06/19	O3	ppb	Continuous		Continuous	-2	16	37			
May-19	Point 11 - Air emissions monitoring	29/05/19	13/06/19	NOx	ppm	Continuous	2132g/min	Continuous		<2132g/min		No	
	Point 8 - First Flush Effluent quality monitoring		12/06/19	13/06/19	O&G	mg/L	Weekly during any discharge		4	nil			
			12/06/19	13/06/19	pH		Weekly during any discharge		4	7.2	7.49	8.00	
			3/05/19	27/05/19	13/06/19	TSS	mg/L	Not required	1	2			
			3/05/19	27/05/19	13/06/19	Salinity	ppt	Not required	1	0.332			
	Point 9 - Process Water Effluent quality monitoring		3/05/19	27/05/19	13/06/19	O&G	mg/L	Monthly	1	<5			
			3/05/19	27/05/19	13/06/19	pH		Monthly	1	7.18			
			3/05/19	27/05/19	13/06/19	TDS	mg/L	Not required	1	128			
			3/05/19	27/05/19	13/06/19	TSS	mg/L	Not required	1	4			
			3/05/19	27/05/19	13/06/19	Salinity	ppt	Not required	1	0.15			
		12/07/19	17/07/19	NOx	ppb	Continuous		Continuous	0	15	165		
	12/07/19	17/07/19	O3	ppb	Continuous		Continuous	-1	16	31			
Jun-19	Point 11 - Air emissions monitoring	24/06/19	9/07/19	NOx	ppm	Continuous	2132g/min	Continuous		<2132g/min		No	
	Point 8 - First Flush Effluent quality monitoring		8/07/19	9/07/19	O&G	mg/L	Weekly during any discharge		8	nil			
			8/07/19	9/07/19	pH		Weekly during any discharge		8	6.75	7.19	7.60	
			4/06/19	21/06/19	9/07/19	TSS	mg/L	Not required	1	4			
			4/06/19	21/06/19	9/07/19	Salinity	ppt	Not required	1	0.059			
	Point 9 - Process Water Effluent quality monitoring		4/06/19	21/06/19	9/07/19	O&G	mg/L	Monthly	1	<5			
			4/06/19	21/06/19	9/07/19	pH		Monthly	1	7.48			
			4/06/19	21/06/19	9/07/19	TDS	mg/L	Not required	1	134			
			4/06/19	21/06/19	9/07/19	TSS	mg/L	Not required	1	7			
			4/06/19	21/06/19	9/07/19	Salinity	ppt	Not required	1	0.161			
		26/06/19	29/07/20	Volume	kL/day	Daily, collated annually		365	0.00	7.03	200.00		

Note: First flush was empty during sampling

Note: Process Water pH was low at the time of sampling. Process water was being stored and removed from site at this time due to maintenance being conducted on the holding pits. No process water irrigated while pH correction system was not in use.

Note: Volume monitoring covers the period of 03 May to 02 May

Change Log

Date Change
13/06/19 During the 2018-2019 Annual Return Compliance Review, additional Point 11 data (pH and O&G only) was identified for the July 2018 - April 2019 period. This data was compliant.
16/07/20 Included frequency of sampling into data sheet
28/07/20 Included sampling requirement for each month to match licence
29/07/20 Included volume monitoring data