

EQUIPMENT	DESCRIPTION	COMMENTS	DATA
Gas Turbines	Total Number of gas turbines		2
	Nominal gas input, HHV	GJ/hr per turbine	2793
	Turbine Output	MW per turbine	275
	Exhaust Stack Height	m	63
	Exhaust Stack Diameter	m	6
	Exhaust exit velocity	m/s - During full load operations	23.2
	Exhaust exit temperature	°C - During Full Load Operations	487.86
	NOx emissions as NO2	During Full Load Operations per unit	3.5 ppm, 24.5 kg/hr
	Ammonia emissions	During Full Load Operations per unit	10 ppm, 26 kg/hr
	CO emissions	During Full Load Operations per unit	15 ppm, 43 kg/hr
	VOC emissions as methane	During Full Load Operations per unit	4 ppm, 9 kg/hr
PM emissions	During Full Load Operations per unit	9 kg/hr	
Aux Boiler	Number of auxiliary boilers	Required for inlet heating	1
	Maximum Input Duty	GJ/hr	250 GJ/hr
	Fuel Type	Natural Gas	NG
	Boiler Efficiency	%	80%
	Aux Boiler Stack Height	m	15
	Aux Boiler Stack Diameter	m	1.4
	Aux Boiler exit velocity	m/s	18.3
	Aux Boiler exit temperature	°C	328
	- NOx	kg/hr	2.99
	- CO	kg/hr	6.22
	- VOC	kg/hr	0.664
- PM	kg/hr	0.58	
Diesel Generator	Number of Diesel generators (Backup)		1
	Maximum Input Duty	GJ/hr	20
	Fuel Type	Low Sulphur Diesel	No. 2 Diesel
	Generator Size	MW or kW	2000 kW
	Diesel Gen. Stack Height	m	34.48
	Diesel Gen. Stack Diameter	m	0.137 0.6
	Diesel Gen. exit velocity	m/s	24.4
	Diesel Gen. exit temperature	°C	406
	- NOx	kg/hr	15
	- CO	kg/hr	0.8
	- VOC	kg/hr	0.3
- PM	kg/hr	0.07	
Diesel Gen. Operational hours	Hours per year	250	
Building Heaters	Building Heaters		Winter peak day consumption value is 20.68 GJ/hour; majority of heaters only operate when space temps drop below 10 C. Units will operate at part-load for spring, fall, and part of winter or 3,000 hours,
	- NOx	kg/hr	1.2 total (multiple heater sources)
	- CO	kg/hr	0.49 total (multiple heater sources)
	- VOC	kg/hr	Negligible
	- PM	kg/hr	Negligible
Operational Hours	Hours per year	See above	
Fire Pump	Diesel Fire Pump		1
	Maximum Input Duty	GJ/hr	4 GJ/hr
	Fuel Type	Low Sulphur Diesel	No. 2 Diesel
	Generator Size	MW or kW	400 kW
	Diesel Gen. Stack Height	m	10 m
	Diesel Gen. Stack Diameter	m	0.1524
	Diesel Gen. exit velocity	m/s	23
	Diesel Gen. exit temperature	°C	473
	- NOx	kg/hr	1.61
	- CO	kg/hr	0.1426
	- VOC	kg/hr	0.023
- PM	kg/hr	0.01426	
Operational Hours	Hours per year	250	
Fuel Data	Types of Fuels Used at the facility		Natural Gas and No. 2 Fuel Oil
	Higher Heating Value (HHV)		22833 (see Union Gas Fuel data)
	Lower Heating Value (LHV)		20592
	sulphur content		0.023 grains per 100 scf (approx)
Gas Dewpoint Heater	No. of gas-fired Dewpoint Heaters		1
	Maximum Input Duty		5.8 GJ/hour
	Fuel Type		Natural Gas
	Heater Size/Type		Indirect water bath - low NOx gas burner
	Heater Stack Height	m	10m
	Heater Stack Diameter	m	0.4 m
	Heater Stack exit velocity	m/s	20 m/s
	Heater Stack exit temperature	C	520 C
	Emissions		
	- NOx	kg/hr	0.31
	- CO	kg/hr	0.13
- VOC	kg/hr	negligible	
- PM	kg/hr	negligible	
Operational Hours	Hours per year	1000	