

INVENTORIES
AI ID: 194165 - Koch Methanol St James LLC - Koch Methanol Facility
Activity Number: PER20220006
Permit Number: 2560-00295-V6
Air - Title V Significant Modification

Subject Item Inventory:

ID	Description	Tank Volume	Max Operating Rate	Normal Operating Rate	Comments	Operating Time
Koch Methanol Facility						
EMS 0001	D-04001 - Methanol Scrubber					8760 hr/yr
EQT 0001	SMR - Steam Methane Reformer		1794 MM BTU/hr	1725 MM BTU/hr	Natural Gas & Process Gas	8760 hr/yr
EQT 0002	BLR - Auxiliary Boiler		1100 MM BTU/hr	525 MM BTU/hr	Natural Gas & Process Gas	8760 hr/yr
EQT 0003	FLR - Flare					8760 hr/yr
EQT 0004	EGEN - Plant Emergency Generator		3634 horsepower	3634 horsepower	Diesel	100 hr/yr
EQT 0005	FWP-01 - Firewater Pump Engine No. 1		422 horsepower	422 horsepower	Diesel	100 hr/yr
EQT 0006	FWP-02 - Firewater Pump Engine No. 2		422 horsepower	422 horsepower	Diesel	100 hr/yr
EQT 0007	CWT - Cooling Water Tower			200000 gallons/min		8760 hr/yr
EQT 0008	TK-04001 - Raw Methanol Tank	845587 gallons		42.2 MM gallons/yr	Crude Methanol, Fixed roof tank	8760 hr/yr
EQT 0013	TK-04002A - Pure Methanol Intermediate Tank	845587 gallons		377 MM gallons/yr	Methanol, Fixed Roof Tank	8760 hr/yr
EQT 0014	TK-NH3 - Ammonia Tank	10000 gallons		440000 gallons/yr	Aqueous Ammonia, Fixed Roof Tank	8760 hr/yr
EQT 0017	TK-04002B - Pure Methanol Intermediate Tank	845587 gallons		377 MM gallons/yr	Methanol, Fixed Roof Tank	8760 hr/yr
EQT 0018	F-03007 - Slop Vessel	3090 gallons		1.13 MM gallons/yr	Methanol Slop, Fixed Roof Tank	8760 hr/yr
EQT 0022	FWP-03 - Firewater Pump Engine No. 3		237 horsepower	237 horsepower	Diesel	100 hr/yr
EQT 0026	EGEN2 - Admin Building Emergency Generator		210 horsepower	210 horsepower	Natural Gas	100 hr/yr
EQT 0027	GASTANK - Gasoline Storage Tank	550 gallons		20000 gallons/yr	Gasoline, Fixed roof tank	8760 hr/yr
EQT 0028	RT LOAD - Methanol Railcar and Tank Truck Loading Operations		6000 gallons/min	908.85 MM gallons/yr		8760 hr/yr
EQT 0029	TK-26-202A - Methanol Product Tank 2301	13.45 million gallons		188.64 MM gallons/yr	Methanol, Floating Roof Tank	8760 hr/yr
EQT 0030	TK-26-202B - Methanol Product Tank 2302	13.45 million gallons		188.64 MM gallons/yr	Methanol, Floating roof tank	8760 hr/yr
EQT 0031	TK-26-202C - Methanol Product Tank 2303	13.45 million gallons		188.64 MM gallons/yr	Methanol, Floating roof tank	8760 hr/yr
EQT 0032	TK-26-202D - Methanol Product Tank 2304	13.45 million gallons		188.64 MM gallons/yr	Methanol, Floating roof tank	8760 hr/yr
EQT 0033	E. GEN 01 - Generac SD 2000		2923 horsepower	2923 horsepower	Diesel	100 hr/yr
EQT 0034	E. GEN 02 - Generac SD 2000		2923 horsepower	2923 horsepower	Diesel	100 hr/yr
EQT 0036	TK-05006 - Sulfuric Acid Tank TK-05006	5000 gallons		41983.1 bbl/yr		8760 hr/yr
EQT 0037	TK-05504 - Sulfuric Acid Tank TK-05504	1000 gallons		8616.94 bbl/yr		8760 hr/yr
EQT 0038	TK-06001-17 - Sulfuric Acid Tank TK-06001-17	6650 gallons		56401.79 bbl/yr		8760 hr/yr
EQT 0039	TK-09002-17 - Sulfuric Acid Tank TK-09002-17	1000 gallons		8616.94 bbl/yr		8760 hr/yr
EQT 0040	TK-09006 - Sulfuric Acid Tank TK-09006	200 gallons		1982.88 bbl/yr		8760 hr/yr
FUG 0001	FUG - Fugitive Emissions - KMe Facility					8760 hr/yr
FUG 0002	WWT - Wastewater Treatment					8760 hr/yr
RLP 0024	PCSVENT - Process Condensate Stripper Vent					100 hr/yr
RLP 0025	CTVENT - Condensate Trap Vents					8760 hr/yr

Stack Information:

ID	Description	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Temperature (oF)
Koch Methanol Facility							
EMS 0001	D-04001 - Methanol Scrubber	3.28		66.01		1.66	70
EQT 0001	SMR - Steam Methane Reformer	10.7		213.25	78.93	422666	336
EQT 0002	BLR - Auxiliary Boiler	8.26		213.25	44.59	210010	300
EQT 0003	FLR - Flare	5.25		185	65.6	31668	1832

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Stack Information:

ID	Description	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Temperature (oF)
Koch Methanol Facility							
EQT 0004	EGEN - Plant Emergency Generator	1.33		12.01	182.54	10044	918
EQT 0005	FWP-01 - Firewater Pump Engine No. 1	.5		12.01	173.84	2343.84	918
EQT 0006	FWP-02 - Firewater Pump Engine No. 2	.5		12.01	173.84	2343.84	918
EQT 0007	CWT - Cooling Water Tower	34.38		46	22.13	123453	68
EQT 0008	TK-04001 - Raw Methanol Tank	3.28		66		2	
EQT 0013	TK-04002A - Pure Methanol Intermediate Tank	3.28		66		2	
EQT 0014	TK-NH3 - Ammonia Tank	3.28		8.01		2	70
EQT 0017	TK-04002B - Pure Methanol Intermediate Tank	3.28		66		2	
EQT 0022	FWP-03 - Firewater Pump Engine No. 3	.5		12.01	173.84	2343.84	918
EQT 0026	EGEN2 - Admin Building Emergency Generator	.04		12	264.51	19.32	1175
EQT 0027	GASTANK - Gasoline Storage Tank	3.28		12			70
EQT 0028	RT LOAD - Methanol Railcar and Tank Truck Loading Operations	8		45	20	66350	1320
EQT 0029	TK-26-202A - Methanol Product Tank 2301	.33		50		.02	75
EQT 0030	TK-26-202B - Methanol Product Tank 2302	.33		50		.02	75
EQT 0031	TK-26-202C - Methanol Product Tank 2303	.33		50		.02	75
EQT 0032	TK-26-202D - Methanol Product Tank 2304	.33		50		.02	75
EQT 0033	E. GEN 01 - Generac SD 2000	1.12		13.75	324.96	5855	987
EQT 0034	E. GEN 02 - Generac SD 2000	1.12		13.75	324.96	5855	987
RLP 0024	PCSVENT - Process Condensate Stripper Vent	5.25		93.83	1.08	1407	248
RLP 0025	CTVENT - Condensate Trap Vents	.06		9.84			212

Relationships:

ID	Description	Relationship	ID	Description
EQT 0008	TK-04001 - Raw Methanol Tank	Controlled by	EMS 0001	D-04001 - Methanol Scrubber
EQT 0013	TK-04002A - Pure Methanol Intermediate Tank	Controlled by	EMS 0001	D-04001 - Methanol Scrubber
EQT 0017	TK-04002B - Pure Methanol Intermediate Tank	Controlled by	EMS 0001	D-04001 - Methanol Scrubber
EQT 0018	F-03007 - Slop Vessel	Controlled by	EQT 0003	FLR - Flare

Subject Item Groups:

ID	Group Type	Group Description
CRG 0001	Common Requirements Group	- EGEN and FWP Opacity Requirements
CRG 0002	Common Requirements Group	- Firewater Pump Engines
CRG 0004	Common Requirements Group	TNKS/SCRBBR - Raw Methanol Tank, Pure Methanol Intermediate Tanks, and Methanol Scrubber
CRG 0006	Common Requirements Group	- Methanol Product Tanks - Terminal
CRG 0007	Common Requirements Group	ENG GENS - Emergency Generators - Terminal
GRP 0002	Equipment Group	SMR BLR PCS Vent CAP - SMR, Boiler, PCS Vent CAP
GRP 0003	Equipment Group	MTPCAP - Methanol Transfer and Product Tank Cap
GRP 0004	Equipment Group	SATK CAP - Sulfuric Acid Tanks Cap
UNF 0001	Unit or Facility Wide	- Koch Methanol Facility

Group Membership:

ID	Description	Member of Groups
EMS 0001	D-04001 - Methanol Scrubber	CRG0000000004
EQT 0001	SMR - Steam Methane Reformer	GRP0000000002
EQT 0002	BLR - Auxiliary Boiler	GRP0000000002

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Group Membership:

ID	Description	Member of Groups
EQT 0004	EGEN - Plant Emergency Generator	CRG0000000001
EQT 0005	FWP-01 - Firewater Pump Engine No. 1	CRG0000000001, CRG0000000002
EQT 0006	FWP-02 - Firewater Pump Engine No. 2	CRG0000000001, CRG0000000002
EQT 0008	TK-04001 - Raw Methanol Tank	CRG0000000004
EQT 0013	TK-04002A - Pure Methanol Intermediate Tank	CRG0000000004
EQT 0017	TK-04002B - Pure Methanol Intermediate Tank	CRG0000000004
EQT 0022	FWP-03 - Firewater Pump Engine No. 3	CRG0000000001, CRG0000000002
EQT 0028	RT LOAD - Methanol Railcar and Tank Truck Loading Operations	GRP0000000003
EQT 0029	TK-26-202A - Methanol Product Tank 2301	CRG0000000006, GRP0000000003
EQT 0030	TK-26-202B - Methanol Product Tank 2302	CRG0000000006, GRP0000000003
EQT 0031	TK-26-202C - Methanol Product Tank 2303	CRG0000000006, GRP0000000003
EQT 0032	TK-26-202D - Methanol Product Tank 2304	CRG0000000006, GRP0000000003
EQT 0033	E. GEN 01 - Generac SD 2000	CRG0000000001, CRG0000000007
EQT 0034	E. GEN 02 - Generac SD 2000	CRG0000000001, CRG0000000007
EQT 0036	TK-05006 - Sulfuric Acid Tank TK-05006	GRP0000000004
EQT 0037	TK-05504 - Sulfuric Acid Tank TK-05504	GRP0000000004
EQT 0038	TK-06001-17 - Sulfuric Acid Tank TK-06001-17	GRP0000000004
EQT 0039	TK-09002-17 - Sulfuric Acid Tank TK-09002-17	GRP0000000004
EQT 0040	TK-09006 - Sulfuric Acid Tank TK-09006	GRP0000000004
RLP 0024	PCSVENT - Process Condensate Stripper Vent	GRP0000000002

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group.

Annual Maintenance Fee:

Fee Number	Air Contaminant Source	Multiplier	Units of Measure
0630	0630 Organic Oxides, Alcohols, Glycols (Rated Capacity)	4989.06	MM lbs/yr

SIC Codes:

2869	Industrial organic chemicals, nec	AI 194165
2869	Industrial organic chemicals, nec	UNF 001