YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT
1947 Galileo Court, Suite 103; Davis, CA 95618
Phone - (530) 757-3650 Fax - (530) 757-3670

DIETHYLENE/TRIETHYLENE DEHYDRATION SYSTEMS (DEG/TEG DEHY SYSTEMS) APPLICATION INSTRUCTIONS AND SUPPLEMENTAL FORM 235

For operation of Dehydration Systems, please submit this completed form with an Authority to Construct (ATC) application form and the applicable filing fees. The filing fees for an initial ATC or for a modification of a dehy which already has a District Permit to Operate (PTO) are identified in Form 06.

After the ATC is granted for any equipment, deviations from the approved plans are not permissible without first securing additional written approval for the changes from the Air Pollution Control Officer.

Please provide the following:

I. A drawing or sketch that shows at least the following:
   a. The property involved - identify property lines and all buildings on the property.
   b. Location of the unit on the property and location of the exhaust stack.
   c. Location of the property with respect to streets and all adjacent properties. Identify the use of all adjacent properties (business or residence).

II. Will the dehy have any of the following components, and if so, list the quantity and identify each on the drawing. Per District Rule 2.23, components are defined as "any valve, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sightglass, or meter".

	Yes / No	Quantity
Open-ended lines and valves		
Hatches		
Pressure relief devices		
Major components*		
Critical components**		
Inaccessible components, except flanges and threaded connections		

*Major components are defined as any 4-inch or larger valve, any 5-hp or larger pump, any compressor, and any 4-inch or larger pressure relief device.
**Critical components are defined as any component which would result in the automatic shutdown of the process unit if the component were shutdown.

III. Provide the following specifications for the still vent and flash tank vent (if applicable):

	Still Vent	Flash Tank Vent
Release height (in meters)		
Inside diameter (in meters)		
Velocity (in m/sec) or flow rate (in acfm)		
Temperature (degrees K)		
Distance to nearest business (in meters)		
Distance to nearest residence (in meters)		

SECTION 1:

Company Name:_____
Equipment Location:_____
Date System First Began Operation:_____

Equipment Manufacturer: _____
Reboiler Burner Rating: _____(Btu/hr)
Equipment Type - Select One: [ ] DEG Dehydration [ ] TEG Dehydration

SECTION 2:

Dry Gas:
Maximum Flow Rate: _____ MMSCF/Day
Select One:
[ ] Water Content: _____ LBS. H2O/MMSCF
[ ] Absorber Stages: _____

Lean Glycol:
Water Content: _____ WT% H2O
Select One:
[ ] Flow Rate: _____ GPM
[ ] Recirculation Ratio: _____ GAL/LB H20

Glycol Pump:
Select Pump Type:
[ ] Electric/Pneumatic
[ ] Gas Injection Volume Ratio:_____ ACFM Gas/GPM Glycol

Wet Gas:

Temperature:		deg. F
Pressure:		psig
Water Content:		
[ ] Gas is saturated [ ] Gas is subsaturated _____ lb H20/MMSCF		

*Component	Concentration (volume %, dry basis)
Carbon Dioxide	
Hydrogen Sulfide	
Nitrogen	
Methane	
Ethane	
Propane	
Isobutane	
n-Butane	
Isopentane	
n-Pentane	
Cyclopentane	
n-Hexane	
Cyclohexane	

*Component	Concentration (volume %, dry basis)
Other Hexanes	
Heptanes	
Methylcyclohexane	
2,2,4-Trimethylpentane	
Benzene	
Toulene	
Ethylbenzene	
Xylenes	
C8+Heavies	

*Please attach a copy of lab analysis

Flash Tank:
Include a Flash Tank? [ ] Yes [ ] No
If Yes, Operating Conditions:
Temperature:_____ deg.F
Pressure: _____ psig

Control Options:
Controlled: Efficiency: _____%
[ ] Combustion Device
[ ] Recycle/Recompression
Uncontrolled:
[ ] Use as Stripping Gas
[ ] Vent

Stripping Gas:
Select Stripping Gas Option:
[ ] No Stripping Gas [ ] Use Dry Gas [ ] Use Flash Gas [ ] Use Nitrogen

Gas Flow Rate: _____ SCFM

Regenerator Control Device:
Select Control Device Option:
[ ] No Control Device [ ] Use a Condenser
[ ] Use a Combustion Device [ ] Use a Condenser/Combustion Device

Condenser Options:
Temperature:_____ deg. F
Pressure: _____ psia

Combustion Device Options:
Ambient Air Temperature: _____ deg. F
Excess Oxygen:_____%
Destruction Efficiency: _____%

Rich/Lean Analysis:
Use rich/lean analytical results? [ ] Yes [ ] No
If yes, please attach necessary data of rich glycol and lean glycol results in mg/l.

Print and sign the name of person completing form:

Print _____ Title _____ Phone Number _____

Signature: _____ Date: _____
(ORIGINAL SIGNATURE REQUIRED. NO PHOTOCOPIES)