Utah Division of Air Quality
New Source Review Section

Company_____

Site/Source_____

Date_____

Form 4
Flare Systems

Equipment Information

1. Manufacturer: _____

   Model no.: _____

   (if available)

2. Design and operation shall be in accordance with 40CFR63.11. In addition to the information listed in this form, provide the following: an assembly drawing with dimensions, interior dimensions and features, flare's maximum capacity in BTU/hr.

3. Characteristics of Waste Gas Stream Input

Components	Min. Value Expected (scfm @ 68 °F, 14.7 psia)	Ave. Value Expected (scfm @ 68°F, 14.7 psia)	Design Max. (scfm @ 68°F, 14.7 psia)
a.			
b.			
c.			
d.			
e.			
f.			
g.			
h.			
4. Percent of time this condition occurs			

5. Flow rate:

	Minimum Expected	Design Maximum	Temp °F	Pressure (psig)
Waste Gas Stream	_____	_____	_____	_____
Fuel Added to Gas Stream	_____	_____	_____	_____

Heat content of the gas to be flared _____ BTU/ft^3

6. Number of pilots	7. Type of fuel	8. Fuel Flow Rate (scfm @ 68°F & 14.7 psia) per pilot

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(Continued)

Steam Injection

9. Steam pressure (psig) Minimum Expected _____ Design Maximum _____	10. Total steam flow Rate (lb/hr)
11. Temperature (^{o}F)	12. Velocity (ft/sec)
13. Number of jet streams	14. Diameter of steam jets (inches)
15. Design basis for steam injected (lb steam/lb hydrocarbon)	

Water Injection

16. Water pressure (psig) Minimum Expected _____ Design Maximum _____	17. Total Water Flow Rate (gpm) Minimum Expected _____ Design Maximum _____
18. Number of water jets	19. Diameter of Water jets (inches)
20. Flare height (ft)	21. Flare tip inside diameter (ft)

Emissions Calculations (PTE)

22. Calculated emissions for this device

PM_{10} _____Lbs/hr_____ Tons/yr $PM_{2.5}$ _____Lbs/hr_____ Tons/yr

NO_x _____Lbs/hr_____ Tons/yr SO_x _____Lbs/hr_____ Tons/yr

CO _____Lbs/hr_____ Tons/yr VOC _____Lbs/hr_____Tons/yr

CO_2 _____Tons/yr CH_4 _____Tons/yr

N_2O _____Tons/yr

HAPs_____Lbs/hr (speciate)_____Tons/yr (speciate)

Submit calculations as an appendix. If other pollutants are emitted, include the emissions in the appendix.

Instructions - Form 4 Flare Systems

NOTE: 1. **Submit this form in conjunction with Form 1 and Form 2.**

2. Call the Division of Air Quality (DAQ) at **(801) 536-4000** if you have problems or questions in filling out this form. Ask to speak with a New Source Review engineer. We will be glad to help!

1. Specify the manufacturer and model number.
2. Supply an assembly drawing, dimensioned and to scale of the interior dimensions and features of the equipment.
3. Supply the specifications of the fuel components in the waste gas stream.
4. Indicate what percent of the time the waste gas stream is at minimum, average, and maximum value.
5. Supply the specifications of the total waste gas stream and the fuel added to the gas stream.
6. Indicate the number of pilots in the flare.
7. Specify the type of fuel to be used.
8. Specify the fuel flow rate.
9. Indicate the minimum and design maximum steam pressure for steam injection.
10. Supply the steam flow rate.
11. Supply the temperature of the steam.
12. Specify the velocity of the steam.
13. Indicate the number of jet streams.
14. Give the diameter of the steam jets.
15. Give the design basis for the steam injection.
16. Specify the water pressure at minimum and design maximum using water injection.
17. Give the total water flow rate at minimum and design maximum.
18. Supply the number of water jets.
19. Give the diameter of the water jets.
20. Supply the flare height.
21. Supply the flare tip inside diameter.
22. Supply calculations for all criteria pollutants and HAPs. Use AP-42 or Manufacturers' data to complete your calculations.