

**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Tank Identification and Physical Characteristics**

**Identification**

User Identification: EU 126-140  
City:  
State: Alaska  
Company:  
Type of Tank: Internal Floating Roof Tank  
Description: ULSD Tank

**Tank Dimensions**

Diameter (ft): 25.59  
Volume (gallons): 2,500,000.00  
Turnovers: 3.00  
Self Supp. Roof? (y/n): Y  
No. of Columns: 0.00  
Eff. Col. Diam. (ft): 0.00

**Paint Characteristics**

Internal Shell Condition: Light Rust  
Shell Color/Shade: White/White  
Shell Condition: Good  
Roof Color/Shade: White/White  
Roof Condition: Good

**Rim-Seal System**

Primary Seal: Liquid-mounted  
Secondary Seal: Rim-mounted

**Deck Characteristics**

Deck Fitting Category: Detail  
Deck Type: Welded

<b>Deck Fitting/Status</b>	<b>Quantity</b>
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	9
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meteorological Data used in Emissions Calculations: Bethel, Alaska (Avg Atmospheric Pressure = 14.54 psia)

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**Liquid Contents of Storage Tank**

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Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Distillate fuel oil no. 2	All	30.00	26.58	33.41	28.98	0.0031	N/A	N/A	130.0000			188.00	Option 1: VP40 = .0031

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**Detail Calculations (AP-42)**

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Annual Emission Calculations	
Rim Seal Losses (lb):	0.0532
Seal Factor A (lb-mole/ft-yr):	0.3000
Seal Factor B (lb-mole/ft-yr (mph) <sup>3</sup> n):	0.6000
Value of Vapor Pressure Function:	0.0001
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0031
Tank Diameter (ft):	25.5900
Vapor Molecular Weight (lb/lb-mole):	130.0000
Product Factor:	1.0000
Withdrawal Losses (lb):	70.0814
Number of Columns:	0.0000
Effective Column Diameter (ft):	0.0000
Annual Net Throughput (gal/yr.):	7,500,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	7.1000
Tank Diameter (ft):	25.5900
Deck Fitting Losses (lb):	0.9651
Value of Vapor Pressure Function:	0.0001
Vapor Molecular Weight (lb/lb-mole):	130.0000
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	139.3000
Deck Seam Losses (lb):	0.0000
Deck Seam Length (ft):	102.8600
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000
Tank Diameter (ft):	25.5900
Vapor Molecular Weight (lb/lb-mole):	130.0000
Product Factor:	1.0000

Total Losses (lb): 71.0997

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors		m	Losses(lb)
		KFa(lb-mole/yr)	KFb(lb-mole/(yr mph <sup>3</sup> n))		
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1	36.00	5.90	1.20	0.2494
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1	14.00	5.40	1.10	0.0970
Roof Leg or Hanger Well/Adjustable	9	7.90	0.00	0.00	0.4926
Sample Pipe or Well (24-in. Diam.)/Silt Fabric Seal 10% Open	1	12.00	0.00	0.00	0.0831
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	0.0430



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**Individual Tank Emission Totals**

**Emissions Report for: Annual**

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	Losses(lbs)				
Components	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Distillate fuel oil no. 2	0.05	70.08	0.97	0.00	71.10

