Instruction Sheet
DEP7007J Volatile Liquid Storage

This form is used to estimate and record emissions from petroleum storage tanks and other volatile liquid storage tanks.

Source Name: Enter the name of the facility.

KY EIS (AFS) #: Enter the Kentucky Emissions Inventory Section identification number of the facility. The KY EIS number follows the format: 21-___-_____. A new facility will not have a KY EIS number.

Permit #: Enter the permit number of the permitted facility. This number is found on the front page of the permit. A new facility will not have a permit number.

Agency Interest (AI) ID: Enter the agency interest number of the facility. This number is found on the front page of the permit. A new facility will not have an agency interest number.

Date: Enter the date the form was completed. If the form is being revised, enter the date the form was revised.

Section J.1: General Information

Emission Unit #: Enter the unique number used to identify the emission unit. If the emission unit is currently permitted, use the existing identification number.

Emission Unit Name: Enter the name of emission unit. Include the descriptor "fugitive" for process that are fugitive emissions.

Emission Unit Description: Describe the emission unit.

Proposed/Actual Construction Commencement: Enter the proposed or actual date of construction commencement for the petroleum storage tank.

Date of Modification/Reconstruction: Enter modification or reconstruction date.

Control Device ID: Enter the control device ID.

Stack ID: Enter the number of the stack. A detailed description of the stack should be provided on DEP7007N.

Section J.2: Tank Description:

Emission Point #: Assign the emission point a number. Each emission point number should be unique.

Emission Point Name: Enter the name or a description of the emission point. Include the descriptor "fugitive" for processes that are fugitive emissions.

Tank ID #: Enter an identification number for the storage tank.

Date Installed: Enter the month and year the tank was installed. If the tank has not been installed yet, project the month and year installation will occur.

List Applicable Regulations: List all the regulations that apply to the emission unit.

J.2A: Stored Liquid Date
This section identifies chemical components and properties of the stored liquid to determine the overall vapor pressure of the liquid and the vapor constituents present in any air emissions.

Single or Multi-Component Liquid Name: Indicate whether the liquid stored in the tank consists of a single component or a mixture of components. If the contents of a mixture are unknown, partially known, or mixtures of components listed in the chemical database, indicate "mixture" and describe.

Maximum Annual Throughput (gal): Record the maximum annual throughput of the tank in gal/yr. If the throughput of the tank is measured in barrels, convert barrels to gallons by multiplying the number of barrels by 42.

Liquid Density (lb/gal): Record the liquid density in lb/gal.

Molecular Weight of Single or Multi-Component Liquid: Enter the molecular weight of the component or mixture in grams per mole.

Percent Composition of Multi-Component Liquid(s): Enter the percent composition of multi-component liquid(s).

Temperature (°F): Record the minimum and maximum liquid surface temperature in degrees Fahrenheit.

Vapor Pressure (psi): Record the minimum and maximum vapor pressure in pounds per square inch absolute (psia).

J.2B: Tank Data:
This section serves to identify construction type and physical characteristics of the storage tank.

Tank Capacity: Enter the tank capacity in gallons.

Shell Height/Length (ft.): Record the shell height and length in feet.

Shell Diameter (ft.): Record the shell height or length in feet. This value is width of the cross section of the tank shell in feet.

Tank Turnovers per Year: Enter the number of tank turnovers per year. This value is the estimated number of times per year the tank is emptied and refilled. The number of turnovers per year may be calculated by dividing the throughput by the tank capacity. If a tank was stored for an entire year, enter zero.

Tank Orientation: Indicate whether the tank is "horizontal" or "vertical".

If vertical, provide Maximum Liquid Height: Enter the maximum height of the liquid within the tank shell in feet.

Average Liquid Height (ft.): Enter the average height of the liquid within the tank shell in feet.

Shell Color/Shade: Indicate the color of the tank.

Roof Color: Indicate the color of the roof. The color/shade combination must be chosen from this list, since these are the only combinations for which there are paint factors in AP-42. If the color of the roof paint does not appear on the list of options, use the color/shade combination that most closely approximates it. If the roof color is unknown, use white/white as the default color.

Tank Type: Indicate the tank type.

J.2C: For Fixed Roof Tanks:

Roof Type: Indicate the type of the fixed roof.

Dome/Cone Height: Enter the height of the tank roof in feet, not including the tank shell itself (the vertical distance from the top of the shell to the top of the roof). For a dome, specify radius. If the dome radius is unknown, assume the dome radius equals the shell diameter. For a cone, specify the slope.

Average Vapor Space Height: Enter the average vapor space height in feet. The vapor space height in a cone roof is equal in volume to a cylinder which has the same base diameter as the cone and is 1/3 the height of the cone.

Is the Tank Underground? Indicate whether the tank is underground.

Roof Condition: Indicate the roof condition as "good" or "poor".

Vacuum Setting: Enter the storage tank vacuum setting in pounds per square inch gauge (psig).

Is the tank heated? Indicate if the tank is heated.

Shell Condition: Indicate whether the tank's shell is "good" or "poor".

Pressure Setting: Enter the storage tank pressure setting in pounds per square inch gauge (psig).

J.2D: For All Internal Floating Roof Tanks:
Rim Seal Description: Indicate the type of internal floating roof tank.

Secondary Seal: Indicate the type of secondary seal.

Internal Shell Condition: Indicate the condition of the internal shell.

Roof Paint Condition: Indicate the condition of the roof paint.

External Shell Condition: Indicate the condition of the roof external shell.

Self-Supporting Roof: Indicate whether the roof is a self-supporting. If the tank does not utilize a self-supporting roof, provide information on the support columns and column diameter.

Number of Support Columns: Enter the number of support columns.

Effective Column Diameter: Record the effective column diameter in feet.

J.2E: Deck Data for Internal Floating Roofs:
Length of Deck Seam: Record the length of deck seam in feet. The length of the deck seam only applies to bolted decks. Indicate continuous or panel deck construction.

Deck Type: Indicate the deck type.

Type of Deck Fitting: Indicate the type of deck fitting.

Design of Each Deck Fitting: Enter the design of each deck fitting by describing the diameter sizes, bolted or gasket covers, sliding cover or fabric seal, adjustable or fixed roof leg/hanger well and number.

J.2F: For All External Floating Roof Tanks:
Rim Seal Description: Indicate the type of externa floating roof tank.

Internal Shell Condition: Indicate the condition of the internal shell.

Tank Type: Indicate the tank type.

Roof Type: Indicate the roof type.

J. 2G: Deck Data for External Floating Roof Tanks:
Type of Deck Fitting: Indicate the type of deck fitting.

Design of Each Deck Fitting: Describe the design parameters of each deck fitting, including diameter sizes, bolted or gasket covers, sliding cover, un-slotted or slotted guide pole well, adjusted or fixed roof leg, and number of each design.

J.2H: Emissions Data:
Attach SDS/Composition Analysis for Each Component Listed

Process ID: Enter the process ID.

Component Name: Enter the component name.

Process Name: Enter the process name.

Loss Emissions: Enter the loss emissions and specify units.

Frequency of Occurrence: Enter the frequency of occurrence.

Determination Methodology for Each Type of Loss: Enter the determination methodology for each type of loss.

Section J.3: Gasoline Plants and Terminals:
Incoming Liquid Material: Indicate the percentage of the mode of transportation for incoming liquids.

Outgoing Liquid Material: Indicate the percentage of the mode of transportation for outgoing liquids.

For Gasoline Dispensing Facilities Only:
Is the loading of gasoline storage tanks at a GDF located at an area source of hazardous air pollutants as defined in 40 CFR 63.2? Mark "yes" or "no".

Is there the dispensing of gasoline from a fixed storage tank at a gasoline dispensing facility into a portable tank for the on-site delivery and subsequent dispensing into gasoline-fueled equipment? Mark "yes" or "no".

Maximum monthly throughput in gallons: Record the maximum monthly throughput in gallons.

For Bulk Gasoline Plants Only-
Is the maximum design throughput less than 20,000 gallons (75,700 liters) per day? Mark "yes" or "no".

Is gasoline loaded into cargo tanks for transport to gasoline dispensing facilities? Mark "yes" or "no".

For Bulk Gasoline Terminals Only-
Is the maximum calculated design throughput equal to or greater than 20,000 gallons (75,700 liters) per day? Mark "yes" or "no".

Is the terminal located at an area source of hazardous air pollutants as defined in 40 CFR 63.2? Mark "yes" or "no".

Does the facility load from marine tank vessel loading operations at all loading berths less than 1.6 billion liters (10 M barrels) of gasoline annually and of less than 32 billion liters (200 M barrels) of crude oil annually? Mark "yes" or "no".

Does the terminal handle any reformatted or oxygenated gasoline containing methyl terbutyl ether (MTBE), CF? Mark "yes" or "no".

Indicate the type of vapor control device utilized: Indicate the type of vapor control device.

Section J.4: Loading Rack(s):
This section is to be completed by all facilities that use a loading rack.

Emission Point #: Assign the emission point a number. Each emission point number should be unique.

Emission Point Name: Enter the name or a description of the emission point. Include the descriptor "fugitive" for processes that are fugitive emissions.

Loading Rack ID#: Enter the loading rack ID.

Product Type: Enter the product type.

Number of Lanes/Racks: Enter the number of lanes/racks.

Number of Risers/Loading arms per rack: Enter the number of risers/loading arms per rack.

Does the petroleum storage capacity exceed 300,000 barrels? Enter "yes" or "no".

Time required loading standard size tanker: Record the time required to load a standard size tanker in minutes. A standard size tanker is 8,500 -9,000 gallons.

Barge/Pipeline Unloading Rate: Record the barge/pipeline unloading rate in barrels per hour.

Barge/Pipeline Unloading Rate: Record the barge/pipeline unloading rate in barrels per year.

Maximum loaded: Record the maximum loaded in gallons per hour.

Maximum loaded: Record the maximum loaded in gallons per year.

Stack ID: Enter the number of the stack. A detailed description of the stack should be provided on DEP7007N.

Control Device: Enter the control device ID.

Section J.5: Equipment Leaks:
This section is to be completed for all Volatile Liquid Storage Systems that may have leaks.

Emission Point #: Assign the emission point a number. Each emission point number should be unique.

Emission Point Name: Enter the name or a description of the emission point. Include the descriptor "fugitive" for processes that are fugitive emissions.

Equipment Type:
For each equipment type, indicate the number of each type of equipment, the emission factor in lb/SCC units, the source of the emission factor, and total emissions in lb/yr.

Section J.6: Notes, Comments, and Explanations

Use this sheet provide additional notes, comments, or explanations on the information provided in Sections J.1, J.2, J.3, J.4 and J.5.