

BREEZE ESP+ Tip: How to Apply Control Devices to Tanks in BREEZE ESP+

[BREEZE ESP+](#) allows users to apply control devices to tanks and then use the capture efficiency and control efficiency of the control devices to estimate 1) emissions that are not captured by the control devices, 2) controlled emissions from the control devices, and 3) the total emissions of the tanks with the control devices applied.

Here are the steps to create a control device and apply it to the emission estimates of a tank in BREEZE ESP+:

1. **Create a control device:** Go to the Source Info tab, select Control Devices as the Source Type in the sidebar, add a blank row, create a control device, and save.



The screenshot shows the BREEZE ESP+ interface. The top navigation bar includes 'Division Management', 'Source Info' (highlighted with a red box), 'Service Info', 'View Emissions Estimates', and 'Report'. The left sidebar shows a tree view with 'Sites' expanded, containing 'Tutorial' and 'Good Guys Oil Co EI'. Under 'Source Types', 'Control Devices' is highlighted with a red box. The main content area shows the 'Control Devices' table with the following data:

#	Control Device ID	Start Date	Type	Control Efficiency (%)	mg/L factor (mg/l)	Load Factor Overri for NC
1	Demo Control Devic	01/01/2012	Vapor Recovery Unit	90		

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2. **Enter Capture Efficiency for the tank:** Go to the Source Info tab, select Tanks as the Source Type in the sidebar, scroll to the right, enter the Capture Efficiency of the tank, and save.

ESP+™

Division Management

Source Info

Service Info

View Emissions Estimates

Report

<

Sites

Tutorial ^

Good Guys Oil Co EI

Source Types

Catch Pans

Combustion Units

Control Devices

Equipment Leaks

Loading Ops

Line/Vessel Openings

Sumps/OWSs

Tanks

Vacuum Trucks

Current Division > Site > Source Type: Tutorial > Good Guys Oil Co EI > Tanks

Tanks

Tank InfoFloating Roof Info

Tank Equipment Dropdown Option Type

Show full descriptionShow letter codes

Min. Liquid Level (ft)	Roof Slope (in/ft)	Slope of Cone Bottom (in/ft)	Height of Dome Roof (ft)	Radius of Dome Roof (ft)	Control Device ID	Capture Efficiency (%)
1	0.75	0				50
1	0.75	0				
1	0.75	0		90		
1	0.75	0		120		
1	0.75	0				

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3. **Apply the Control Device to Routine Service Events:** If the control device is applied to the routine service events of the tank, please select the Control Device ID on the Source Info table for Tanks.

ESP+™ Division Management **Source Info** Service Info View Emissions Estimates Report

Current Division > Site > Source Type: Tutorial > Good Guys Oil Co EI > Tanks

Tanks Tank Info Floating Roof Info

Tank Equipment Dropdown Option Type Show full description Show letter codes

Min. Liquid Level (ft)	Roof Slope (in/ft)	Slope of Cone Bottom (in/ft)	Height of Dome Roof (ft)	Radius of Dome Roof (ft)	Control Device ID	Capture Efficiency (%)
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1	0.75	0				
1	0.75	0		90		
1	0.75	0		120		
1	0.75	0				

Sites

Tutorial ^

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4. **Apply the Control Device to Non-Routine Service Events:** If the control device is applied to the non-routine service events (such as roof landing, tank cleaning, or change of service) of the tank, go to the Service Info tab, select Tanks as the Source Type, add or edit a non-routine service event (e.g., tank cleaning event, as shown in the screenshot below), and select the Control Device ID on the non-routine service event form.

ESP+™ Division Management Source Info **Service Info** View Emissions Estir

Tank Cleaning Event

Tank ID
T-0001

Initial Purge **Prior Stock Remains** Pump In Diluent Sludge Rem

☒ Cleaning includes Prior Stock Remains Stage

Begin date (MM/dd/yyyy)
1/5/2012

Begin time (hh:mm) [optional]

Prior Stock
2Oil

RVP [optional]

Heel type
Full Heel

Height of Liquid above bottom of shell (ft)
2

Hours/day Forced Vent
12

Average Fan Rate (CFM)
5000

Bulk Storage Temperature (degF)

Control Device ID
Demo Control Device

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5. **Review the Emissions Estimates for Tanks:** On the View Emissions Estimates table for Tanks:
- "Load to Control Device" (or "Load to Instantaneous Control Device") equals the original emission without control multiplied by the Capture Efficiency on the Source Info (Tanks) table
 - "Estimated Emissions not captured" equals the original emission without control multiplied by [1- Capture Efficiency on the Source Info (Tanks) table]
 - "Estimated Emissions from Control Device" equals "Load to Control Device" (or "Load to Instantaneous Control Device") multiplied by [1 - Control Efficiency on the Source Info (Control Devices) table]
 - "Total estimated emissions w/o flashing loss" equals "Estimated Emissions from Control Device" plus "Estimated Emissions not captured"

ESP+™ Division Management Source Info Service Info **View Emissions Estimates** Report

Current Division > Site > Source Type: Tutorial > Good Guys Oil Co EI > Tanks

Tanks Regular Short-Term Time Period: January 2012 Prev Change Time Period Next

Calculation Status: Complete Recalculate All

Show Calculation Steps Show Speciation Details

#	Tank ID	Start	End	Total estimated emissions w/o flashing loss (lbs)	Estimated Emissions from Control Device (lbs)	Estimated Emissions not captured (lbs)	Load to Control Device (lbs)
1	T-0001	01/01/2012	02/01/2012	18.88384049176	1.716712771978	17.16712771978	17.16712
2	T-0002	01/01/2012	02/01/2012	20.16844394715	0	20.16844394715	0
3	T-0003	01/01/2012	02/01/2012	421.6527529337	0	421.6527529337	0
4	T-0004	01/01/2012	02/01/2012	854.7188350543	0	854.7188350543	0
5	T-0005	01/01/2012	02/01/2012	249.0032747814	0	249.0032747814	0

If you have questions when troubleshooting or when using BREEZE ESP+, please contact the BREEZE Support Team via email at support@trinityconsultants.com or by phone at +1 (972) 661-8881 ext. 4, and it will be our pleasure to assist you.