

AASHTOWare BrR 6.8

Feature Tutorial

RATE1 – Bridge Explorer Rating Example

RATE1 - Bridge Explorer Rating Example

This example illustrates how to rate bridges from the Bridge Explorer.


Select TrainingBridge1 and PCITrainingBridge1 on the right portion of the Bridge Explorer.

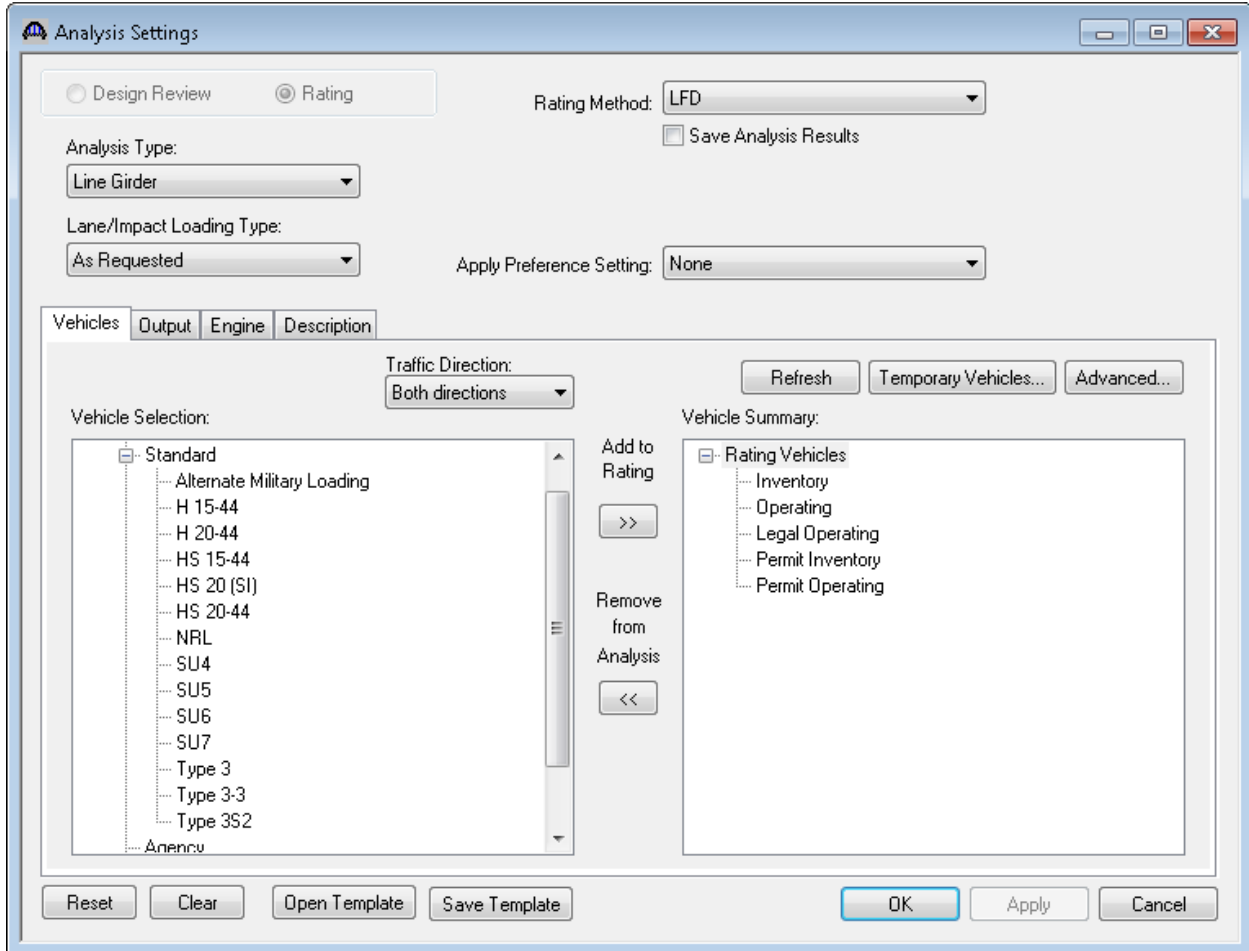
Note:

- To select one bridge, click on the bridge.
- To select consecutive bridges, click the first bridge, press and hold down Shift, and then click the last bridge.
- To select bridges that are not consecutive, press and hold down Ctrl, and then click each bridge.

BID	Bridge ID	Bridge Name	District	County	Facility	Location	Route	Feature Intersected	Mile/Km Post (mi)	Owner	Maintainer	Area	Length (ft)	Year Built
1	TrainingBridge1	Training Brid	District	01 Abb	SR 005	Pittsburg	0051	SR 6060	17.00	State Hi	State High	Not A	161.00	1999
2	TrainingBridge2	Training Brid	Unkno	Unkno	N/A	N/A	-1	N/A		Unkno			Unkn	1996
3	TrainingBridge3	Training Brid	District	01 Abb	I-79	Pittsburg	0079	Ohio River	125.00	State Hi	State High		455.00	1999
4	PCITrainingBridge1	PCI TrainingB					-1						Unkn	
5	PCITrainingBridge2	PCI TrainingBr					-1						Unkn	
6	PCITrainingBridge3	PCI TrainingB					-1						Unkn	
7	PCITrainingBridge4	PCI TrainingBr					-1						Unkn	
8	PCITrainingBridge5	PCI TrainingB					-1						Unkn	
9	PCITrainingBridge6	PCI TrainingBr					-1						Unkn	
10	Example7	Example 7 P					-1						Unkn	
11	RCTrainingBridge1	RC Training					-1						Unkn	
12	TimberTrainingBridge1	Timber Tr. Bri					-1						Unkn	
13	FSys GFS TrainingBridge1	FloorSystem	District	15 Coll	NJ-Tur	NJCity	-1						Unkn	2002
14	FSys FS TrainingBridge2	FloorSystem	District	333 No	I-95	NYC	-1			State Hi	County H		Unkn	1998
15	FSys GF TrainingBridge3	FloorSystem	District	06 Bar	I-95	ATL	-1			County			Unkn	1998
16	FLine GFS TrainingBridge1	FloorLine GF	District	01 Abb	I-75	JAX	-1			State Hi	State High		Unkn	2001
17	FLine FS TrainingBridge2	FloorLine FS	District	02 Alke	I-75	GNV	-1			State Hi	State High		Unkn	2000
18	FLine GF TrainingBridge3	FloorLine GF	District	01 Abb	I-95	NY	15		2200.00	County	Unknown		Unkn	1999
19	TrussTrainingExample	Truss Trainin					5						Unkn	1930
20	LRFD Substructure Example 1	LRFD Substr												
21	LRFD Substructure Example 2	LRFD Substr			SR 403	ERIE CO	4034	FOUR MILE	8.12			1095.8		2002
22	LRFD Substructure Example 3	LRFD Substr												
23	LRFD Substructure Example 4	LRFD Substr					-1						240.00	2004
24	Visual Reference 1	Visual Refer	District	12 Che	I-76	WAITSF	I-76	MAD RIVER	1199.25	State Hi	State High	Unkn	168.00	1938
25	Culvert Example 1	Culvert Exam					1	STH6						
26	LFD Curved Guide Spec	LFD Curved					1							
27	MultiCell Box Examples	Multi Cell Box					100							2014
28	Gusset Plate Example	Gusset Plate	District			Some Hi				State Hi			67.900	2015
29	Splice Example	Splice Examp					-1						240.00	2004
30	Simple DL-Cont LL-Splice	Simple DL Sp	Unkno	Unkno	N/A	N/A	-1	N/A		Unkno		Unkn		1996

RATE1 - Bridge Explorer Rating Example

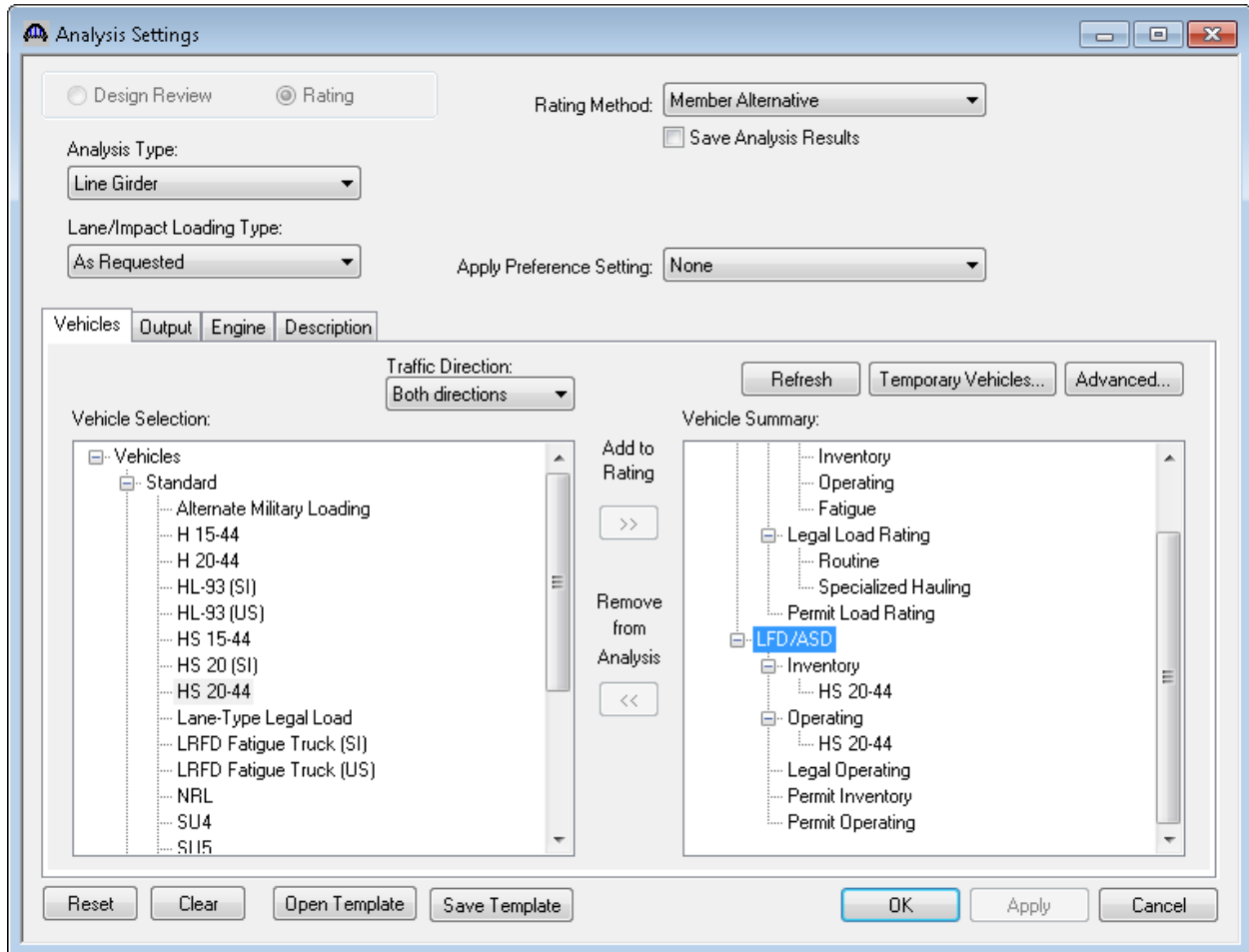
Open the Analysis Setting window by clicking the Rate button  on the toolbar or selecting the Rate menu item on the Bridge menu.



RATE1 - Bridge Explorer Rating Example

Select Member Alternative as the Rating Method to be used for the analysis. When Member Alternative is selected as the Rating Method, the default rating method in the Member Alternative Description window will be used.

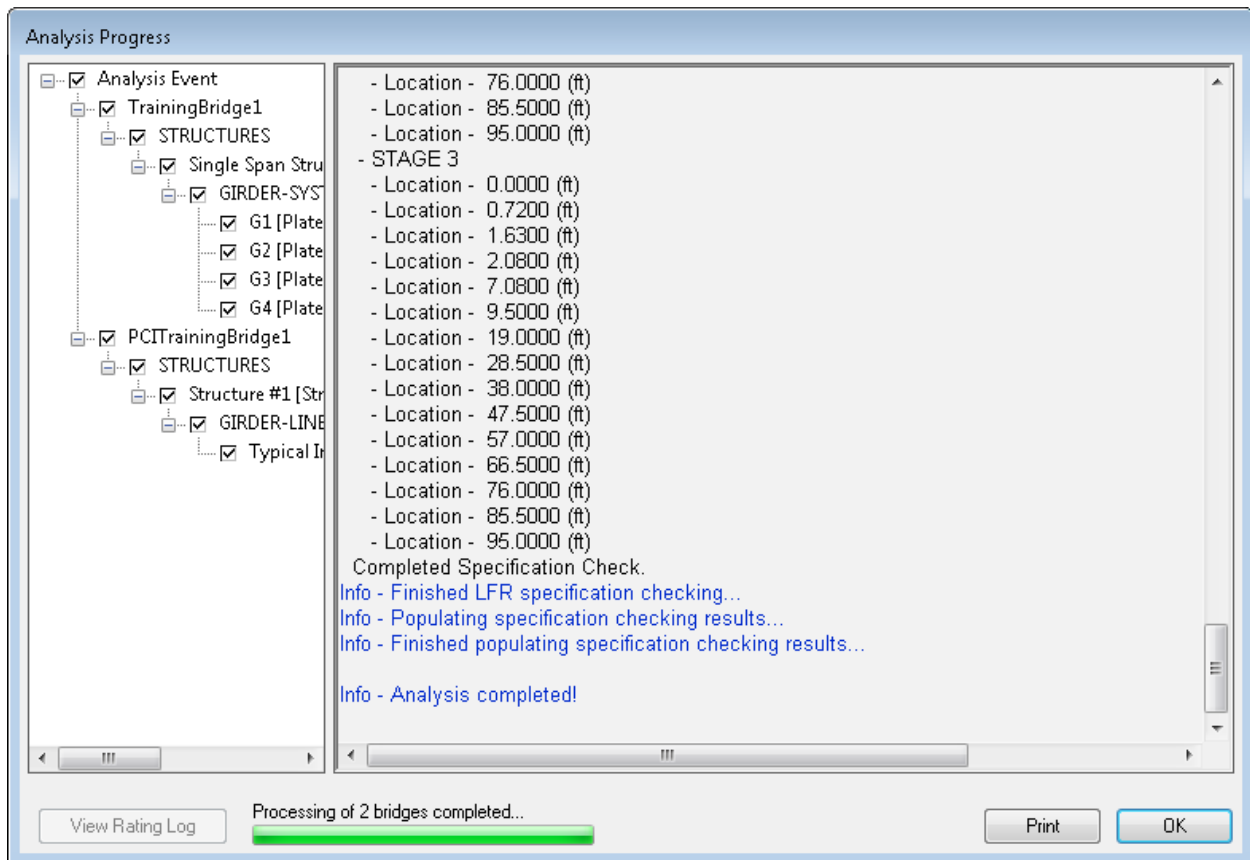
Select the HS 20-44 on the Vehicle Selection tree. Click Add to Rating button to add the vehicle to the Vehicle Summary tree for use in the analysis.



RATE1 - Bridge Explorer Rating Example

Click OK to start rating the bridges and the Analysis Progress window will open.

BrR will rate all appropriate member alternatives for each selected bridge. To do this, BrR searches for bridge components that are marked as “Existing”. BrR uses the bridge alternative marked as “Existing” and rates each structure in that bridge alternative. For each structure, BrR looks at the structure alternative marked as “Existing” and for each of the structure alternatives BrR looks at the superstructure definition assigned to it. For the superstructure definition, BrR continues to look at member alternatives within the superstructure definition that are marked as “Existing”.



RATE1 - Bridge Explorer Rating Example

After the analysis is complete, click OK to close the Analysis Progress window and the Bridge Rating Results window will open.

Bridge Rating Results

System of Units: US Customary SI / Metric

Lane/Impact Loading Type: As Requested Detailed

Display Format: Multiple rating levels per row

Bridge Id	Vehicle	Inventory Rating Factor	Operating Rating Factor	Legal Operating Rating Factor	Legal Rating Factor	Permit Inventory Rating Factor	Permit Operating Rating Factor	Permit Rating Factor	Inventory Rating Method	Operating Rating Method	Legal Operating Rating Method	Rating
TrainingBridge1	HS 20-44	0.877	1.464						LFD	LFD		
PCITrainingBridge1	HS 20-44	1.245	2.079						LFD	LFD		

Show up-to-date results only

View Structure Rating Results Save All Print Close

Select TrainingBridge1 and click on the View Structure Rating Results button to view the superstructure rating results.

Structure Rating Results

System of Units: US Customary SI / Metric

Lane/Impact Loading Type: As Requested Detailed

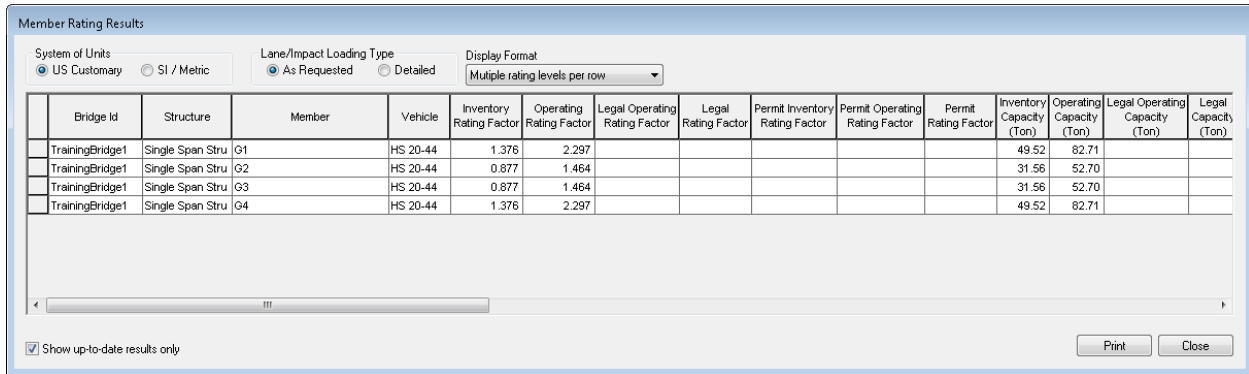
Display Format: Multiple rating levels per row

Bridge Id	Structure	Vehicle	Inventory Rating Factor	Operating Rating Factor	Legal Operating Rating Factor	Legal Rating Factor	Permit Inventory Rating Factor	Permit Operating Rating Factor	Permit Rating Factor	Rating
TrainingBridge1	Single Span Structure	HS 20-44	0.877	1.464						LFD

View Member Rating Results Show up-to-date results only Print Close

RATE1 - Bridge Explorer Rating Example

Select TrainingBridge1 and click on the View Member Rating Results button to view the member rating results.



Member Rating Results

System of Units: US Customary SI / Metric

Lane/Impact Loading Type: As Requested Detailed

Display Format: Multiple rating levels per row

Bridge Id	Structure	Member	Vehicle	Inventory Rating Factor	Operating Rating Factor	Legal Operating Rating Factor	Legal Rating Factor	Permit Inventory Rating Factor	Permit Operating Rating Factor	Permit Rating Factor	Inventory Capacity (Ton)	Operating Capacity (Ton)	Legal Operating Capacity (Ton)	Legal Capacity (Ton)
TrainingBridge1	Single Span Stru	G1	HS 20-44	1.376	2.297						49.52	82.71		
TrainingBridge1	Single Span Stru	G2	HS 20-44	0.877	1.464						31.56	52.70		
TrainingBridge1	Single Span Stru	G3	HS 20-44	0.877	1.464						31.56	52.70		
TrainingBridge1	Single Span Stru	G4	HS 20-44	1.376	2.297						49.52	82.71		

Show up-to-date results only

Print Close


Click Close on the Member Rating Results window to return to the Structure Rating Results window.

Click Close on the Structure Rating Results window to return to the Bridge Rating Results window.

The Save All button on the Bridge Rating Results window saves all the rating results to the database and closes the window.

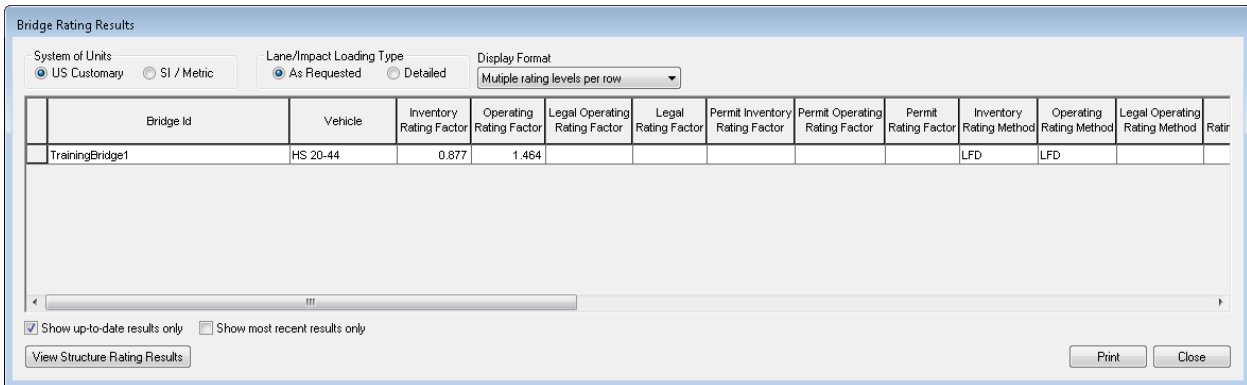
Close the Bridge Rating Results window.

RATE1 - Bridge Explorer Rating Example

Click on the Rating Results button  on the toolbar or select the Rating Results menu item on the Bridge menu will open the Bridge Rating Results window for the currently selected bridges in the Bridge Explorer.

While TrainingBridge1 is selected in the Bridge Explorer, clicking the Rating Results button will display the following Bridge Rating Results window.

The Show up-to-date results only check box will display only up-to-date results (results for bridges that have not been modified since the last rating event) when checked. If the box is not checked, then this window will also display results that are not up-to-date (results for bridges that have been modified since the last rating event).



Bridge Rating Results

System of Units: US Customary SI / Metric


Lane/Impact Loading Type: As Requested Detailed

Display Format: Multiple rating levels per row

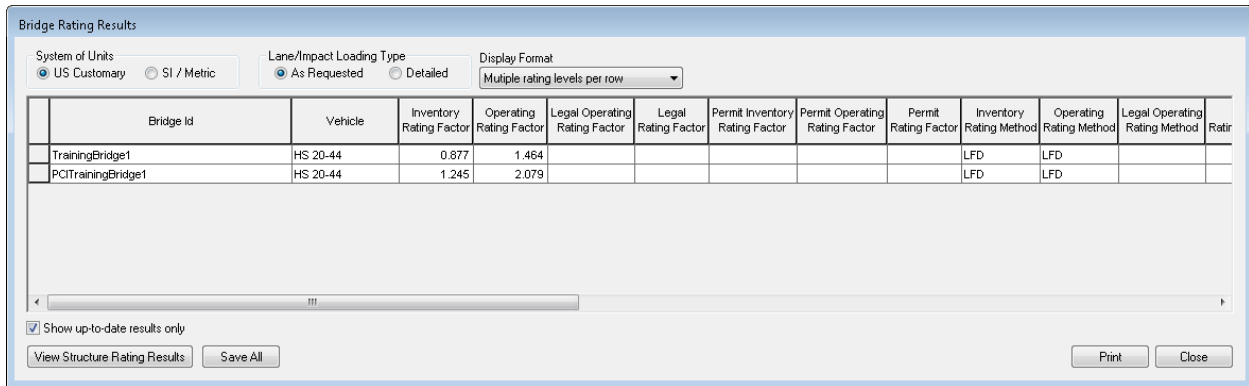
Bridge Id	Vehicle	Inventory Rating Factor	Operating Rating Factor	Legal Operating Rating Factor	Legal Rating Factor	Permit Inventory Rating Factor	Permit Operating Rating Factor	Permit Rating Factor	Inventory Rating Method	Operating Rating Method	Legal Operating Rating Method	Rating
TrainingBridge1	HS 20-44	0.877	1.464						LFD	LFD		

Show up-to-date results only Show most recent results only


RATE1 - Bridge Explorer Rating Example

Click on the Recent Rating Results button  on the toolbar or select the Recent Rating Results menu item on the Bridge menu will open the Bridge Rating Results window for the most recent analysis.

Clicking the Recent Rating Results button will display the following Bridge Rating Results window.



Bridge Id	Vehicle	Inventory Rating Factor	Operating Rating Factor	Legal Operating Rating Factor	Legal Rating Factor	Permit Inventory Rating Factor	Permit Operating Rating Factor	Permit Rating Factor	Inventory Rating Method	Operating Rating Method	Legal Operating Rating Method	Rating
TrainingBridge1	HS 20-44	0.877	1.464						LFD	LFD		
PCITrainingBridge1	HS 20-44	1.245	2.079						LFD	LFD		

Click on the Manage Analysis Events button  on the toolbar or select the Manage Analysis Events menu item on the Bridge menu will open the Analysis Events Summary for the currently selected bridges in the Bridge Explorer.

While PCITrainingBridge1 is selected in the Bridge Explorer, clicking the Manage Analysis Events button will display the following Analysis Events Summary window.

The Unload button will remove the selected analysis events from memory but not from the database.

The Delete button will remove the selected analysis events from memory and from the database.

The Save button will save the selected analysis events to the database.