Monitoring Plan Pitfalls

By Bill Montag

A Note From the EPA on 8-26-19

EPA recently conducted an audit of analyzer component IDs and their reported serial numbers and discovered two issues they wanted to bring to everyone's attention.

A Note From the EPA (cont)

1. Component IDs are not being updated when analyzers are replaced.
    1. They found many times where an analyzer was supposed to be in service for over 15 years. They consider that suspect and much longer than the typical lifespan of an analyzer.
    2. In the event of an analyzer replacement, create a new Component ID and start date/hour that coincides with the date/hour the new analyzer was placed into service.
    3. Also report a QA Certification Event Data record to indicate the analyzer change
2. Manufacturer, Model Version, and Serial Numbers are not being entered correctly.
    1. A review of the data discovered entries such as “###”, “???”, and “Later”. All of these should be updated with correct analyzer serial number.
    2. For flow monitors, provide a single component serial number that represents the control unit of the monitor.
    3. Currently ECMPS allows the updating of these fields without changing or updating the Component ID. However EPA is investigating changes to prevent editing of these fields once hourly emissions data has been submitted using the analyzer.

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A new component needs a new ID

- When you change out a component in the DAHS (new analyzer, dahs, etc…) you need to create a new component ID. Simply updating the record is not the way to go.
- You then need to remember items like the analyzer range record and the component tab in the system record.
- For sites that rotate fuel flowmeters, you can list all the components in the monplan. But must age the records correctly for which component is in a which time.

"You can have two houses, but you can only be at home in one of them at a time."

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Formula text fields

- Whenever a system or component changes, the formula should be updated to reflect that change.
- Typically we suggest making that change and updating to the current text.
- You also have the option to retire that formula id and simply add a new one to reflect the aging of that formula in conjunction with the component.
- F#(xxx) = formula ID number
- S#(xxx-yyy) component id-system id

X Pattern Flow Systems

- X-flow pattern systems should consist of:
  - one primary system with both A and B components and DAHS.
  - two redundant backup systems
    - one A-side system with the A component and a DAHS
    - one B-side system with the B component and a DAHS.
- If you have an X-flow pattern system include the “X-FL” formula. This indicates you intend on using this system in this manner versus as just straight redundant backups.

“To PLC or not to PLC”

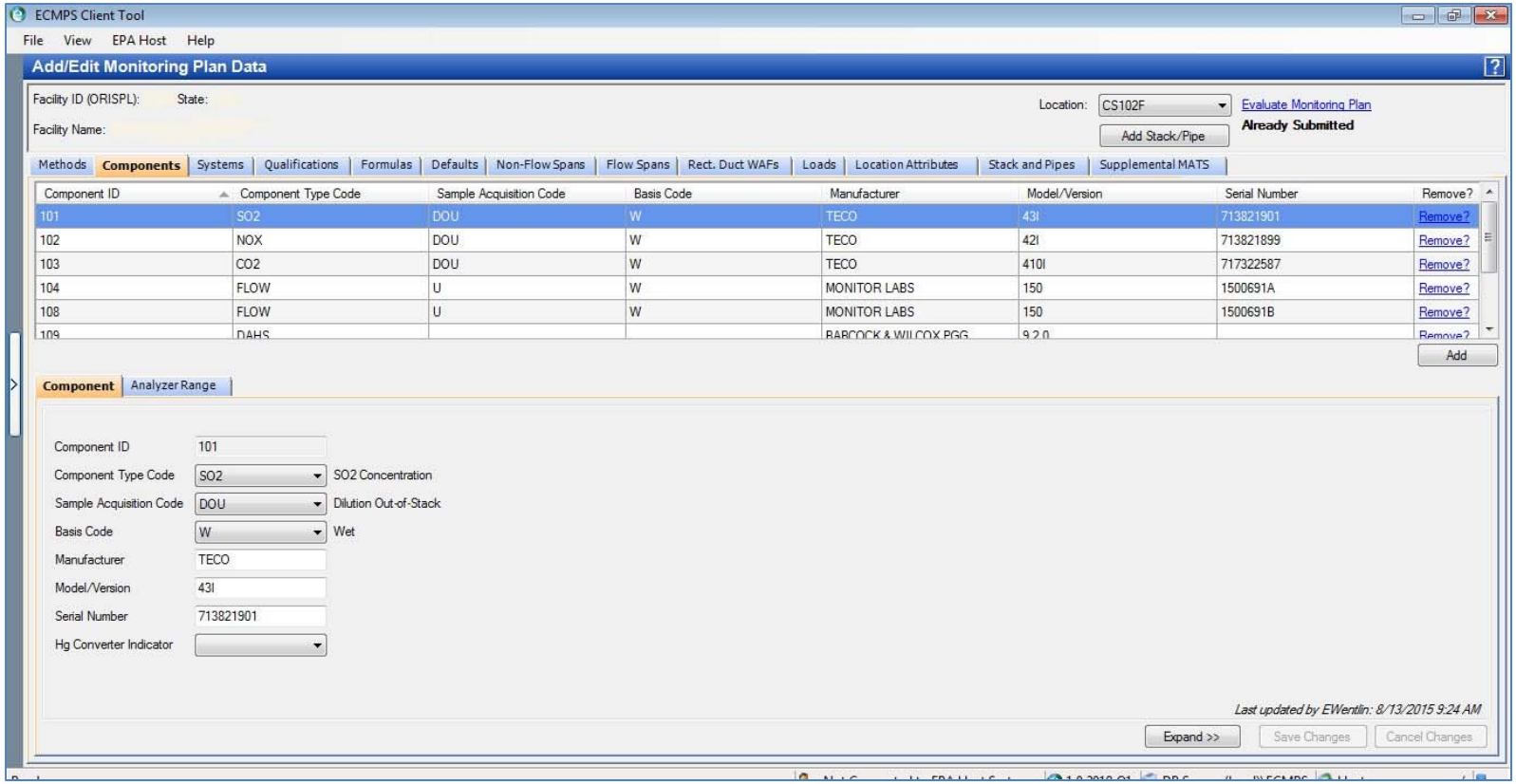
- Adding a PLC/SEAL/Data Logger as a component
- It is not currently a requirement, but it has been on EPA’s radar for some time to make it such

- The choice is yours to do so

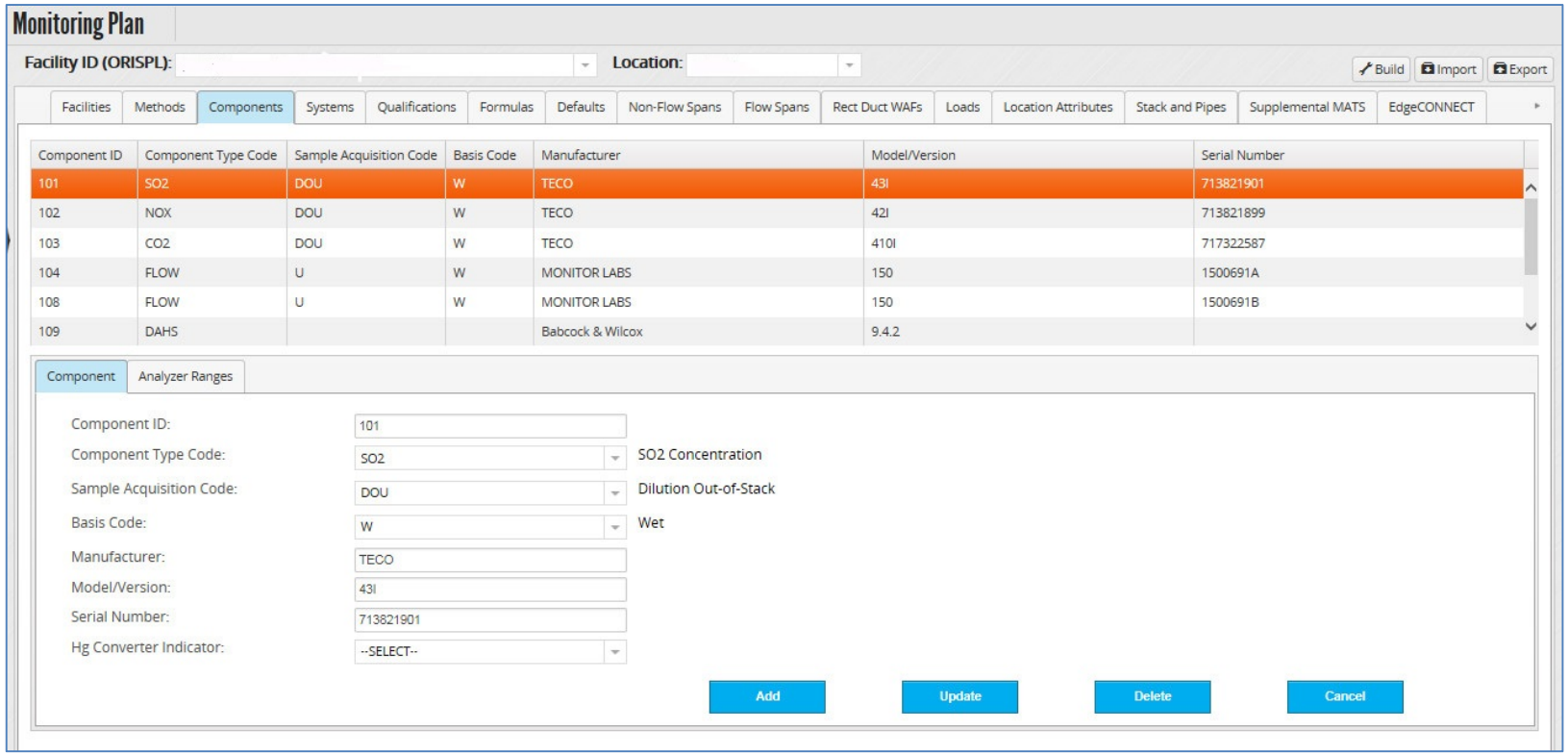
Dahs Data in the monitoring plan

- Recommended make for our DAHS systems is “NETDAHS”
- Recommended model is the Software Rev #. Example 9.4.5
- Recommended serial number is the service tag on most of the Dahs servers

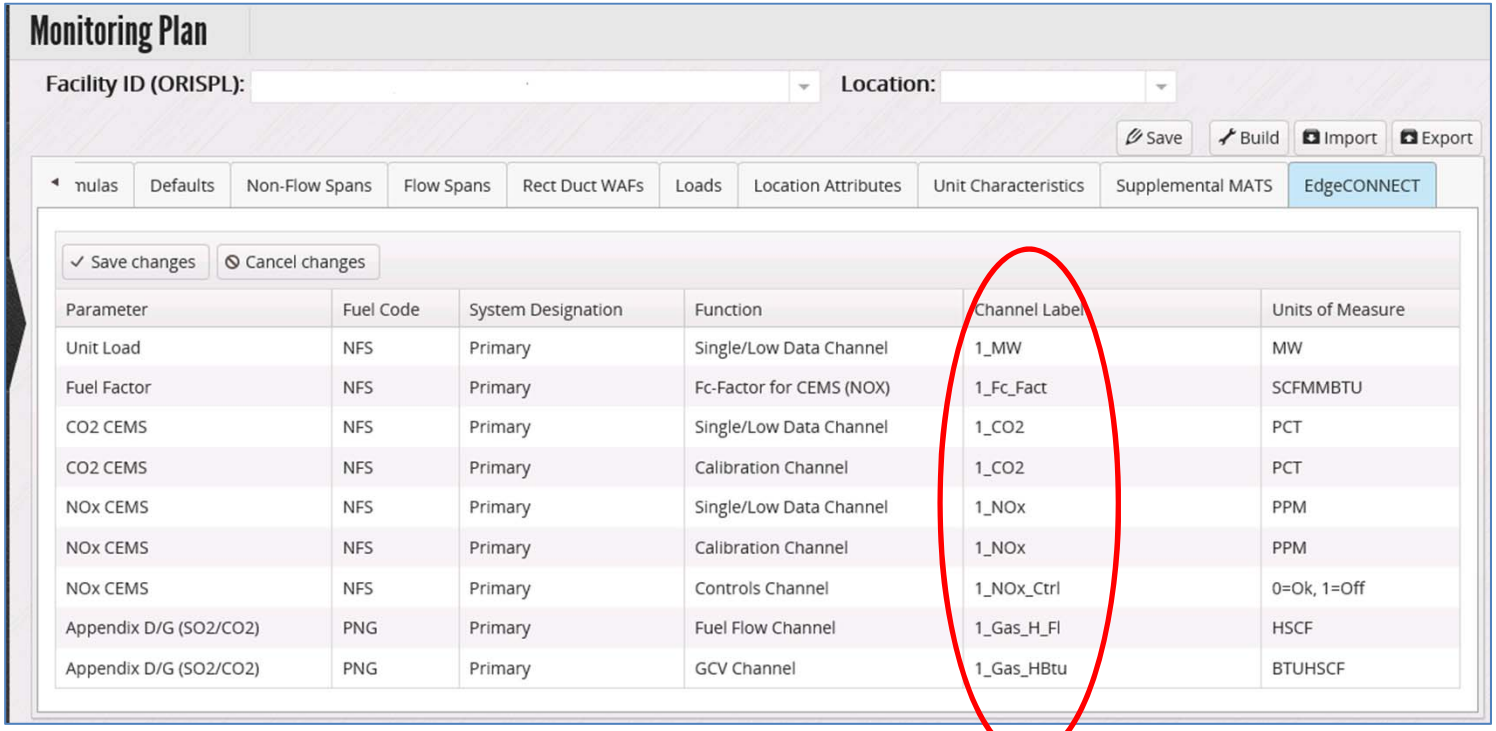
Monitoring Plan (ECMPS)



Monitoring Plan (DAHS)



EdgeCONNECT



Parameter	Fuel Code	System Designation	Function	Channel Label	Units of Measure
Unit Load	NFS	Primary	Single/Low Data Channel	1_MW	MW
Fuel Factor	NFS	Primary	Fc-Factor for CEMS (NOX)	1_Fc_Fact	SCFMMBTU
CO2 CEMS	NFS	Primary	Single/Low Data Channel	1_CO2	PCT
CO2 CEMS	NFS	Primary	Calibration Channel	1_CO2	PCT
NOx CEMS	NFS	Primary	Single/Low Data Channel	1_NOx	PPM
NOx CEMS	NFS	Primary	Calibration Channel	1_NOx	PPM
NOx CEMS	NFS	Primary	Controls Channel	1_NOx_Ctrl	0=Ok, 1=Off
Appendix D/G (SO2/CO2)	PNG	Primary	Fuel Flow Channel	1_Gas_H_Fl	HSCF
Appendix D/G (SO2/CO2)	PNG	Primary	GCV Channel	1_Gas_HBtu	BTUHSCF

Part 75 DAHS channels must be linked to EdgeCONNECT for each given parameter

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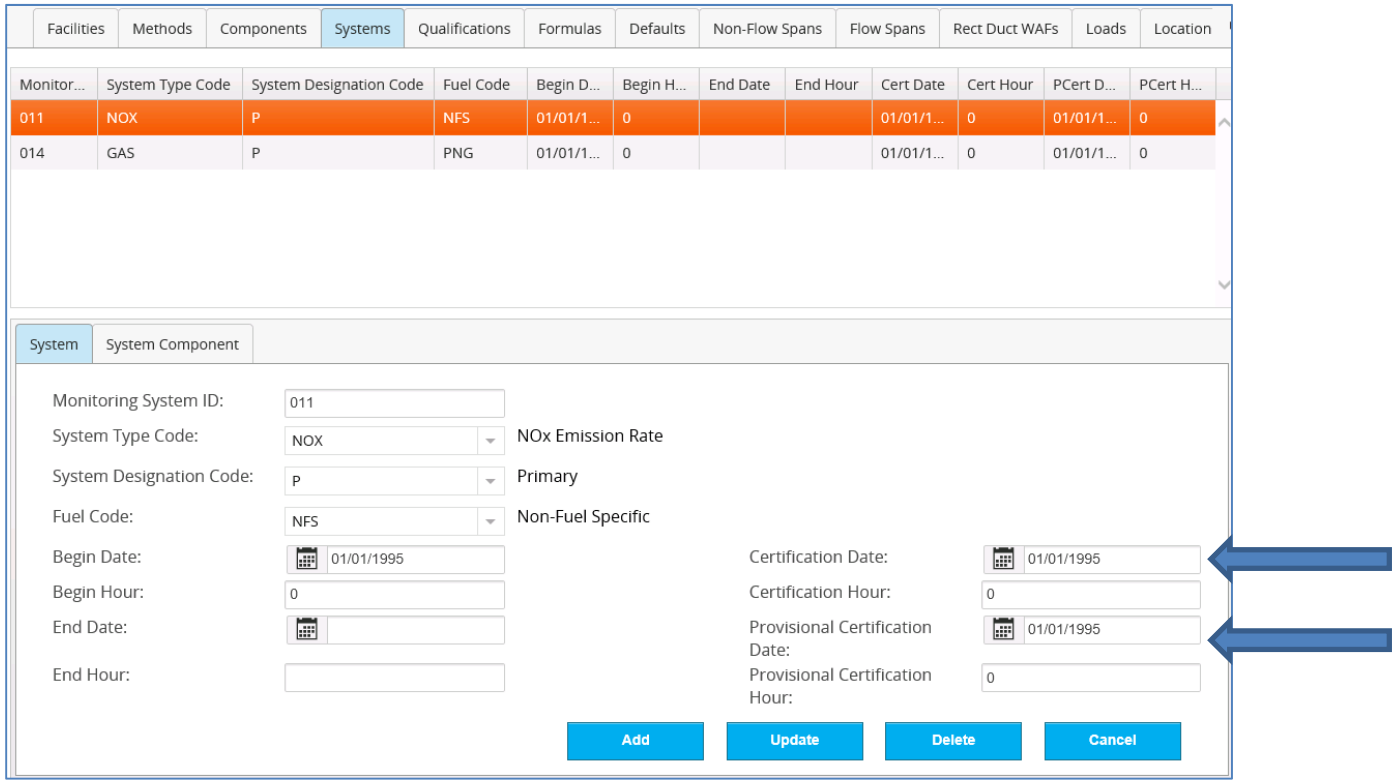
Certification Dates



Certification dates and Provisional Certification dates are tracked in the 'Systems' tab. This information is not listed in ECMPS, but it is used in NetDAHS to determine the time period in which a system becomes valid.

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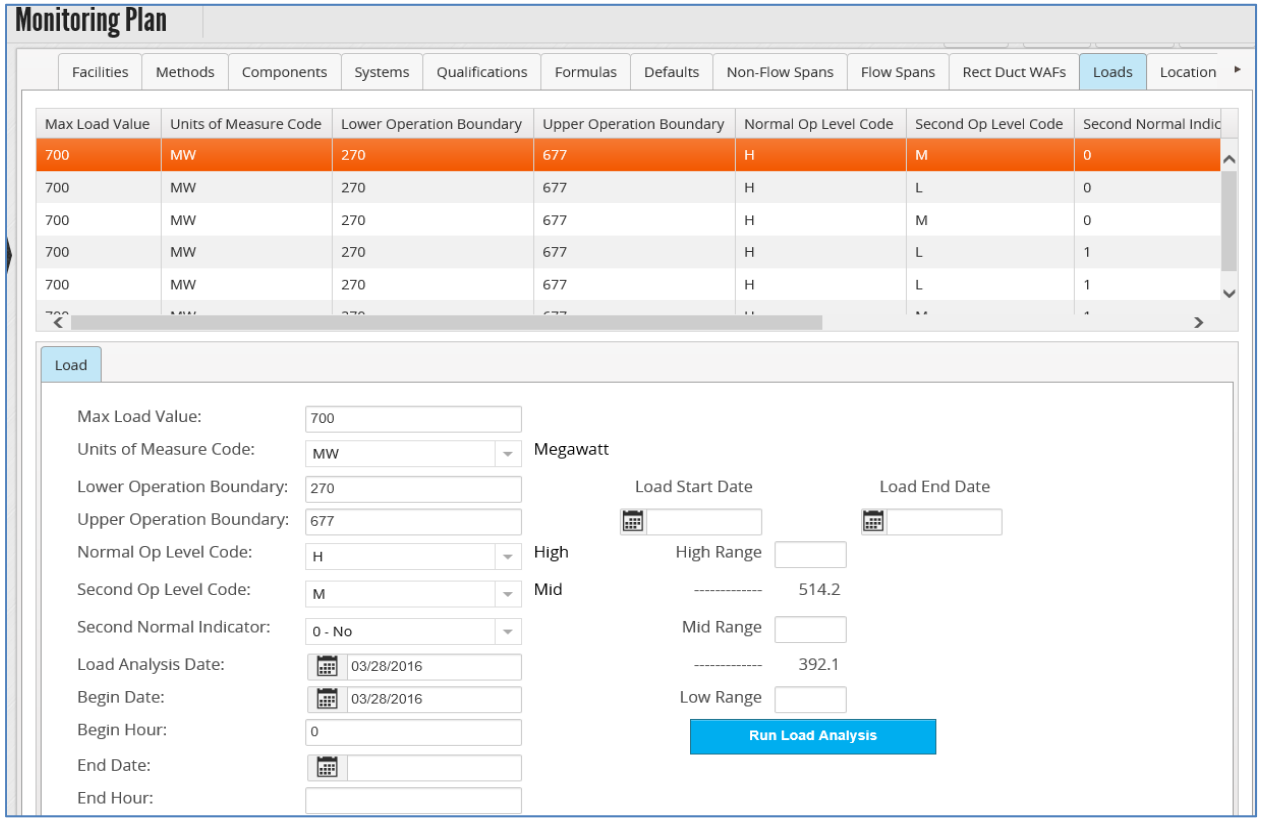
Load Range Analysis



Determining the Range of Operation is now done in the 'Loads' tab.

It can also be done in the Single-Load Claim in the QA section.

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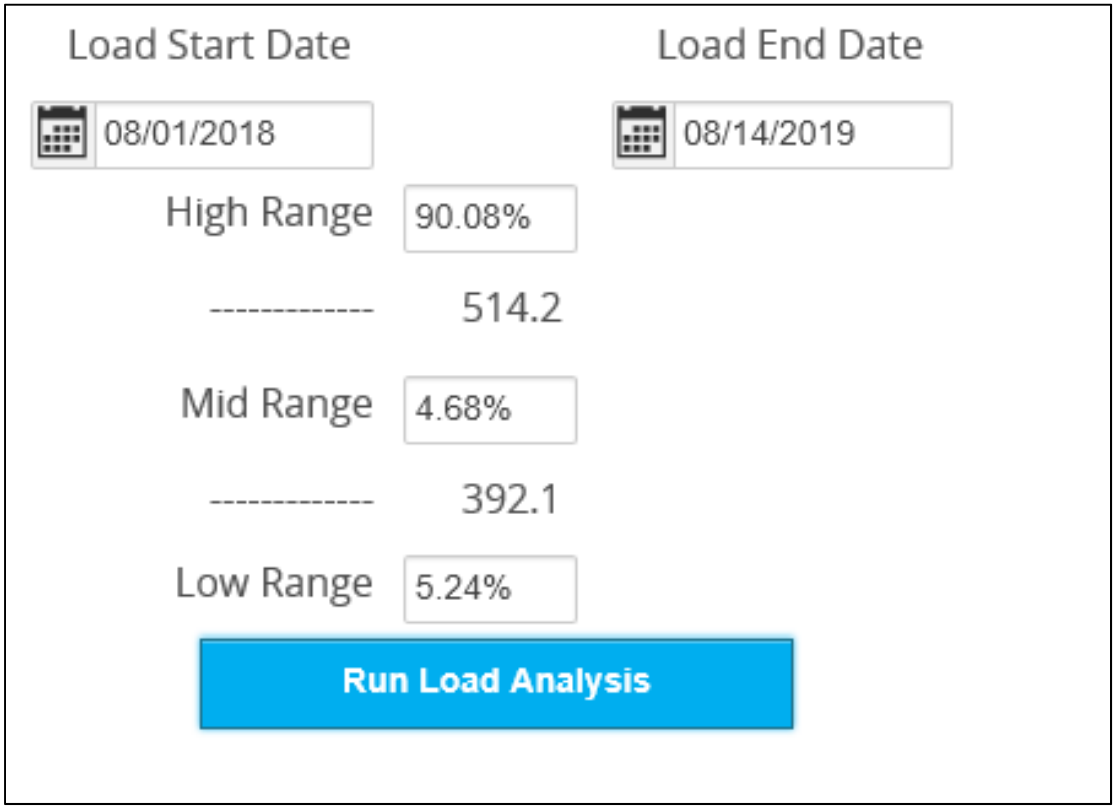
Load Range Analysis



Choose a Start & End date and then choose 'Run Load Analysis' to calculate the percentage of each run time in Low, Mid, and High range.

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Load Range Analysis Notes

- Per Part 75 app A 6.5.2.1 (a) (1) to be a minimum of 4 operating quarters unless operations has changed then you need min. 2 operating quarters
- Can take a screen shot of the load analysis and save it in a folder
- For Gas Turbines you can use second normal load to allow doing RATA at different load ranges
- The Single-load flow RATA exemption if load is in a load range >85%. From time of last RATA till 21 days before next RATA

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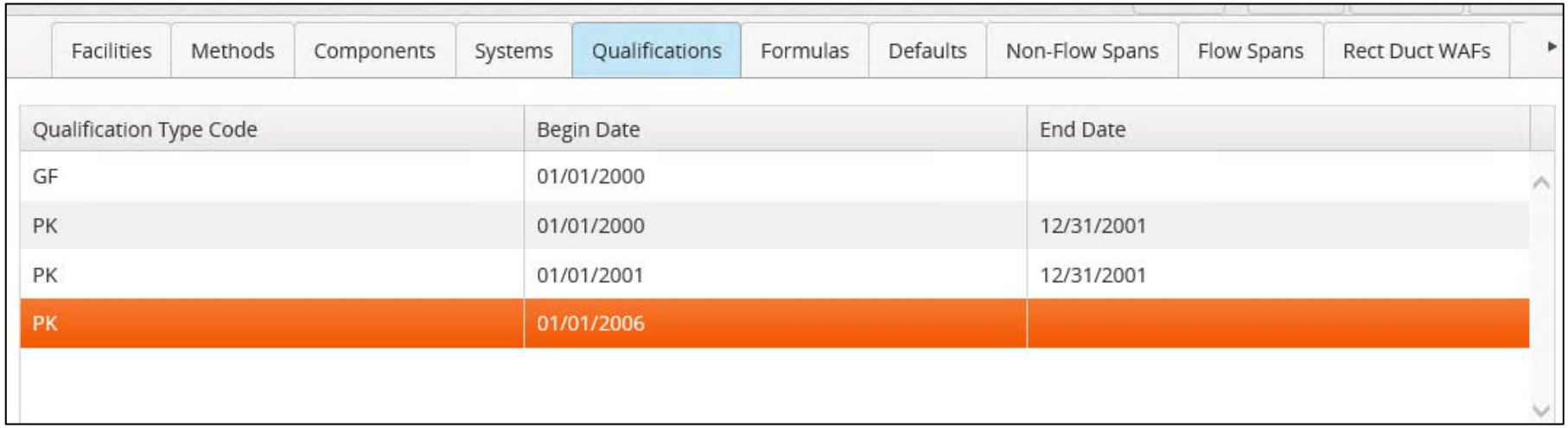
Qualification Records



You can now generate the qualification records on the DAHS and export the entire monplan xml file into ECMPS during Q1 reporting

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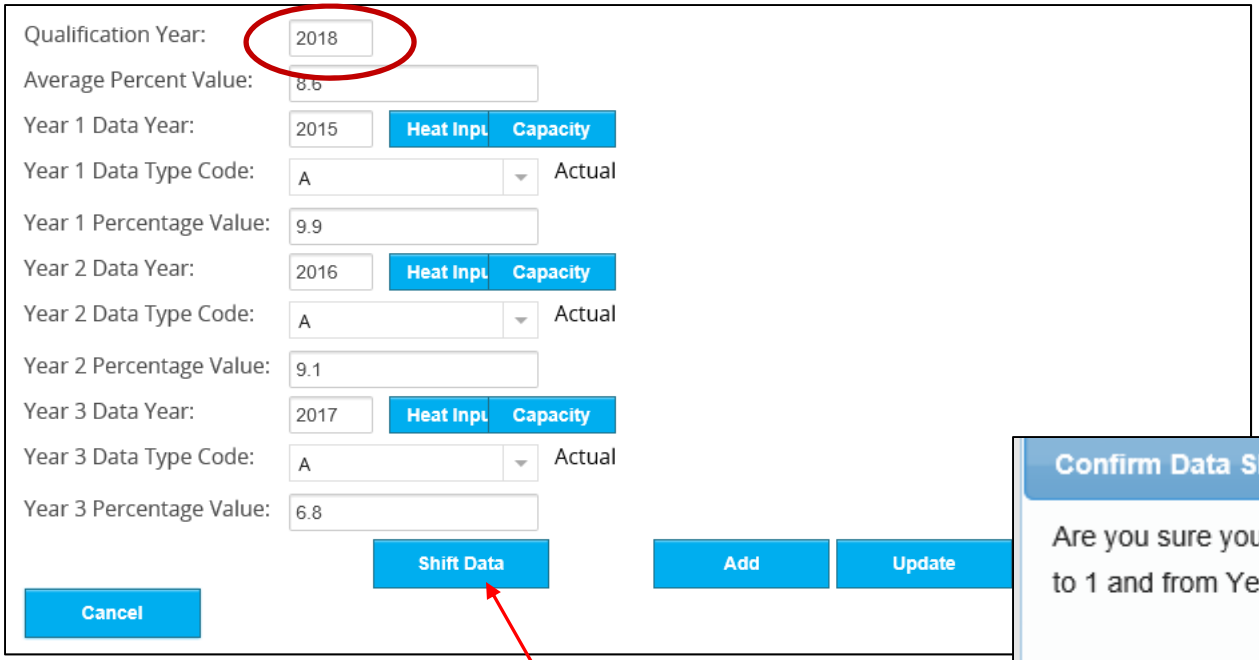
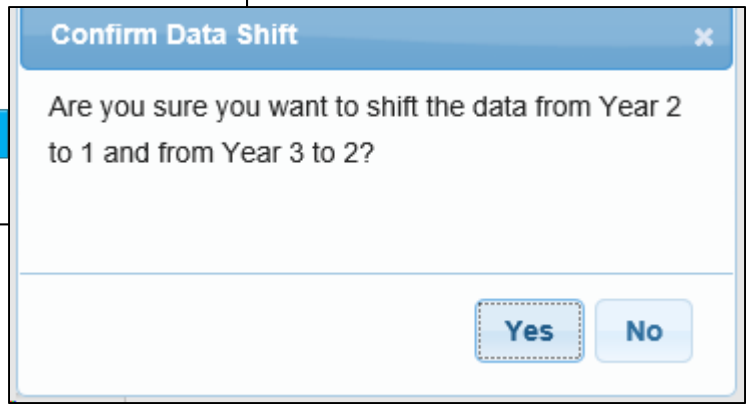
Qualification Records



Update the Qualification year and hit the shift data button



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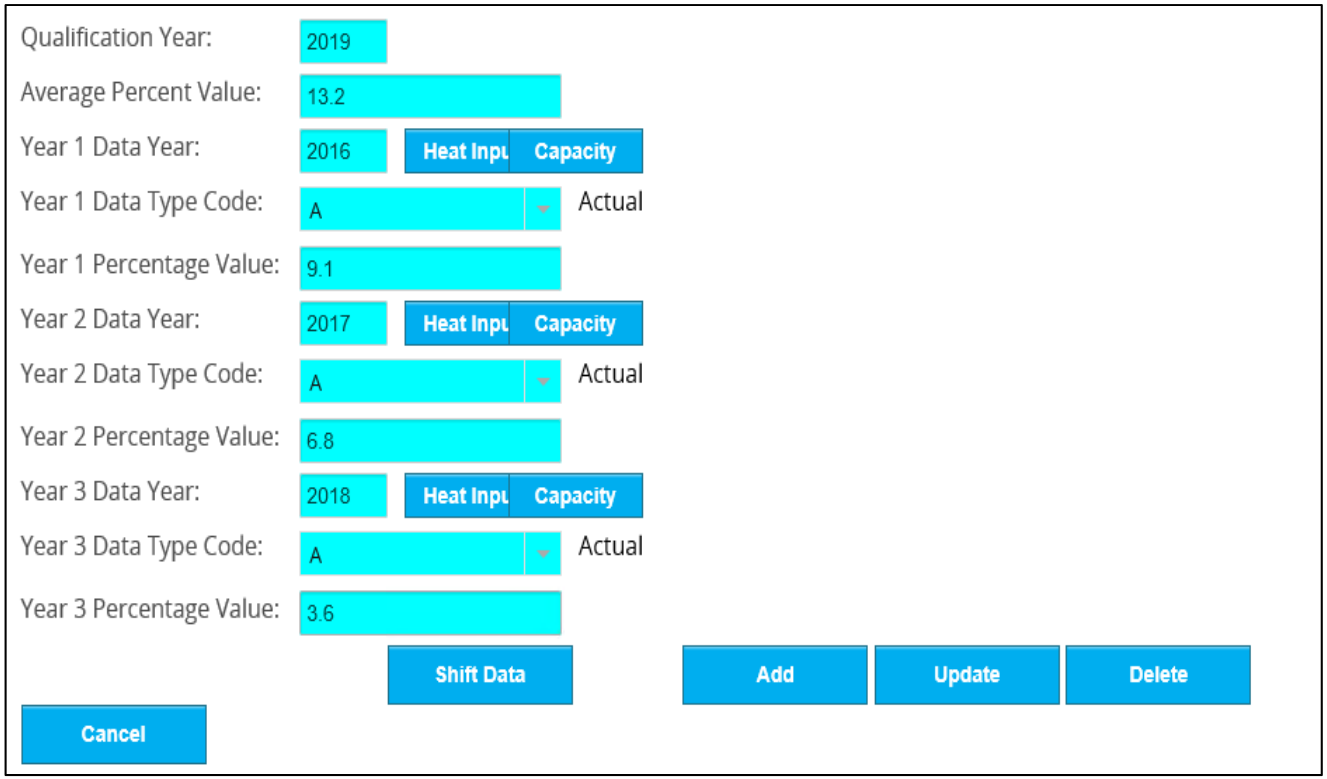
Qualification Records



Once done click on the capacity or heat input buttons. They will automatically calculate the annual values for you. Then hit add and the record will be ready to go.

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Questions?

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