# Managing Thermal System Make-up and Treatment

**February 9, 2016** 

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### Thermal Systems Make-up Monitoring

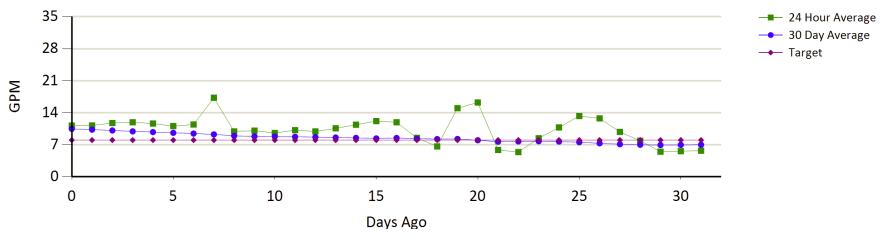
Thermal Loop Make-up (GPM)	24 Hour Average	30 Day Average	Target (1%)	%Over / (Under) Target
Main Campus				
Chilled Water	11.18	10.46	8	31
Heating Hot Water	13.05	12.33	3	311
West Campus				
Chilled Water	13.91	13.88	11	26
Heating Hot Water	5.46	11.45	3	282

1/26/2016 6:00:00 AM

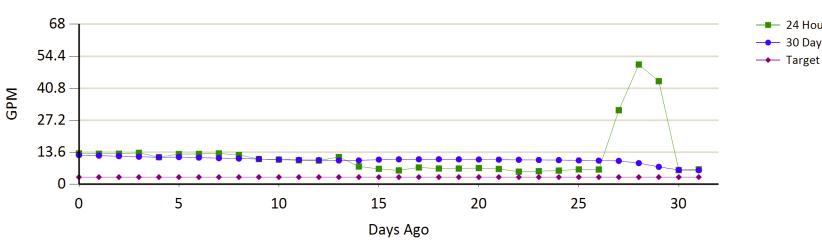


## Thermal System Make-up Main Campus

### Main Campus Chilled Water Make Up - GPM



### Main Campus Heating Hot Water Make Up - GPM

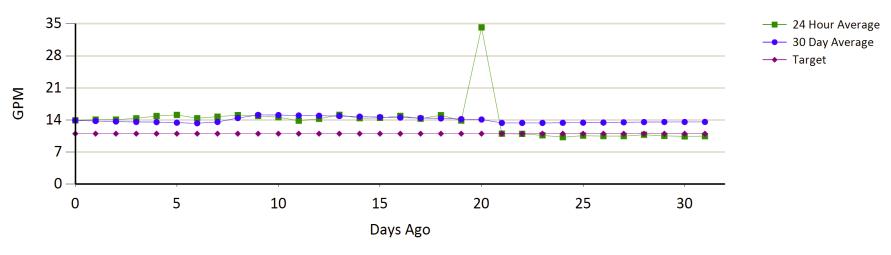




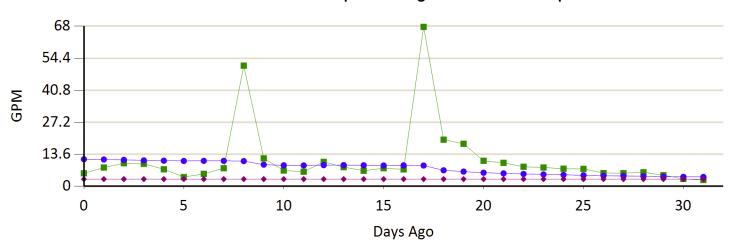
24 Hour Average30 Day Average

## Thermal System Make-up West Campus

### West Campus Chilled Water Make Up - GPM



### West Campus Heating Hot Water Make Up - GPM



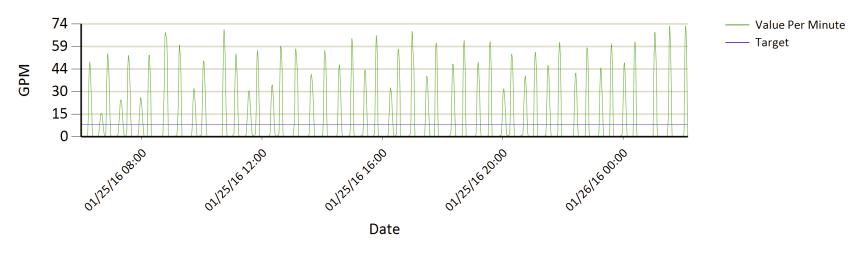


24 Hour Average30 Day Average

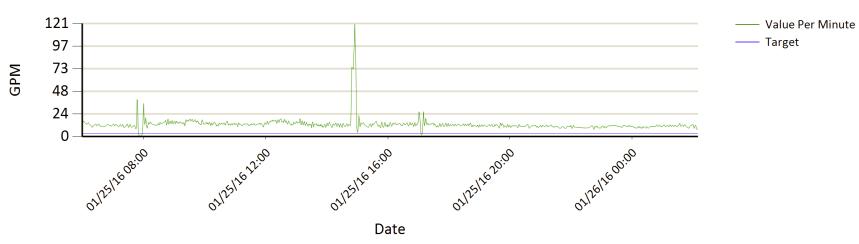
→ Target

## Thermal System Make-up by Minute Main Campus

### Main Campus Chilled Water Make Up - GPM



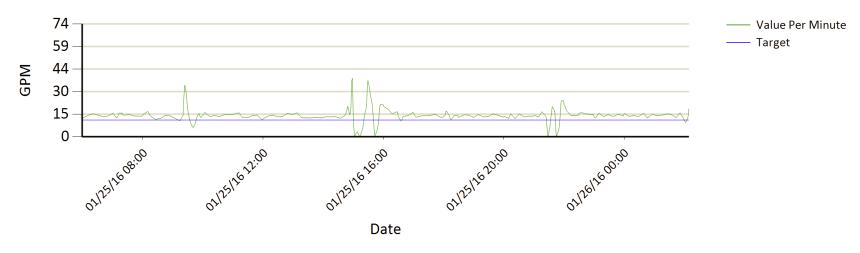
### Main Campus Heating Hot Water Make Up - GPM



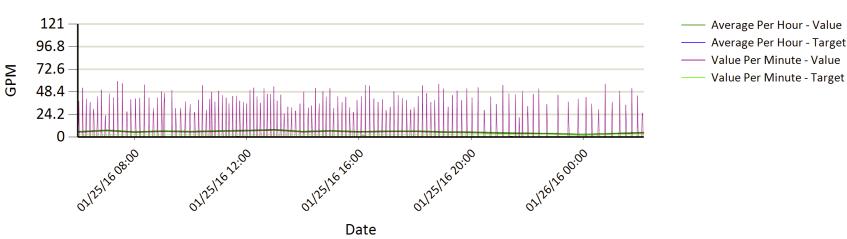


## Thermal System Make-up by Minute West Campus

### West Campus Chilled Water Make Up - GPM



### West Campus Heating Hot Water Make Up - GPM





### Thermal System Water Treatment

### Chilled Water Treatment

- Phosphate-based
- GE GenGard GN7110

### **Heating Hot Water Treatment**

- Molybdate-based
- GE CorrShield MD4103

