

System Diagram Break Out 05

Given

- The examples we have worked through
 - The assumptions we made as we worked through the examples
 - The need to stage up from one chiller to a 2nd chiller as the load exceeded the capacity of one chiller
 - The ability to manually operate the plant
 - The as installed system diagram copies that follow
1. *Develop the node analysis showing how the as installed chilled water plant would work when you staged up to a second chiller at 50% load*
 2. *Answer the questions that follow*

Questions

Assuming full functionality and proper balancing:

1. What specific steps could you take manually to bring the second chiller online and have it stay online without:
 - a) A safety trip?
 - b) Short cycling?
2. Can all of the energy efficiency benefits envisioned by the design intent be realized with the installed piping configuration?
3. What commissioning tools could have been employed to ensure that the design intent piping configuration was provided?

As Installed System Diagram

- Starting the Second Chiller

