THERMOPHASE has been utilized at UPMC Children's Hospital chillers since Q1 2021. This March will mark the third usage.

Prior to doing the first application in February/March of 2021, the chiller tubes were borescoped. As can be seen in Image 1 below, fouling is clearly seen on the walls of the tubes. UPMC cleans the tubes each year, so this is essentially a year of build-up.

Image 1: Borescope Image of Fouled Chiller Tubes from UPMC Children's Hospital Chiller in 2021

After the tubes were cleaned, the tubes were borescoped again. Image 2 below shows that the cleaning is sufficient to remove the fouling from the tube walls.

Image 2: Borescope Image of Chiller Tube After Cleaning from UPMC Children's Hospital Chiller in 2021
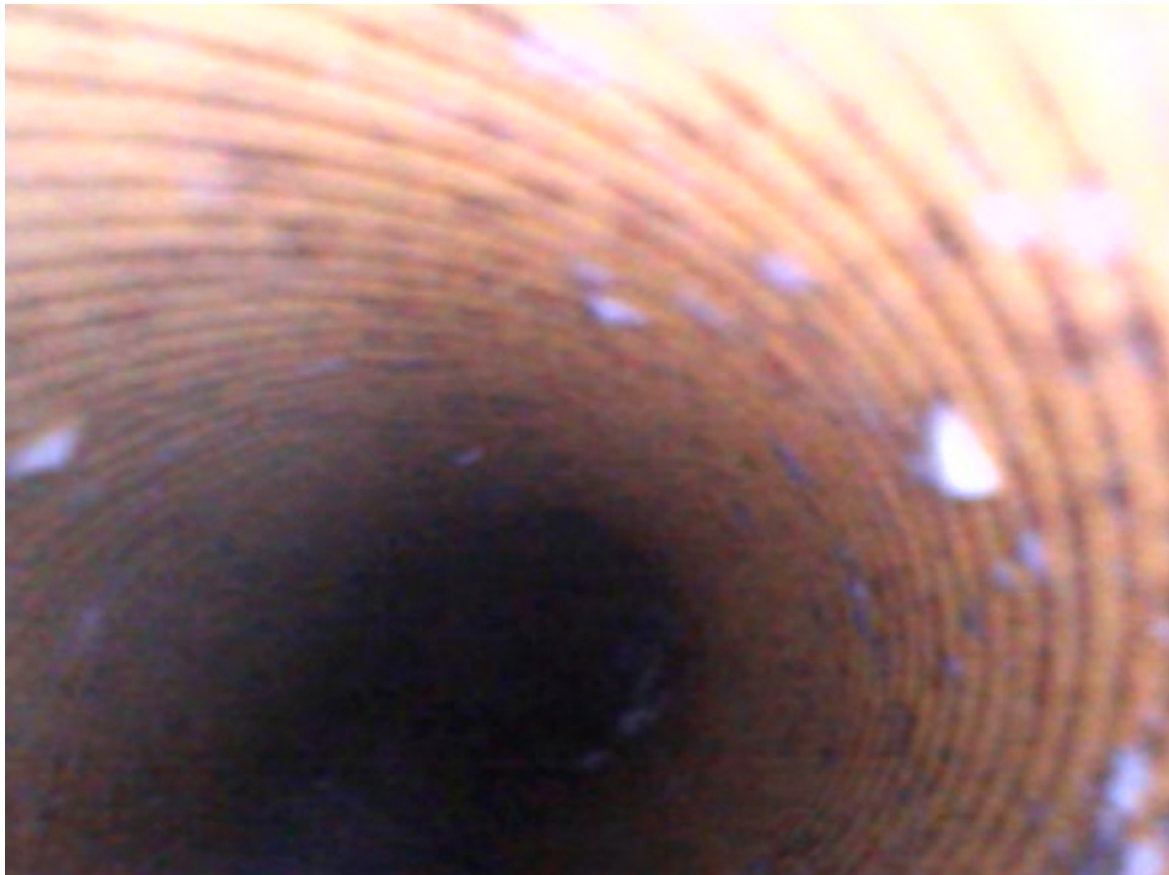
After the tubes were cleaned, THERMOPHASE was applied by circulating it through the offline chiller. The chillers were treated between February and March of 2021. Without any cleaning, the chiller tubes were borescoped the following year in January/February 2022. As can be seen in Image 3 below, there is very little noticeable fouling.

Image 3: Borescope Image of Chiller Tube 1 Year after THERMOPHASE application Without Cleaning in 2022

As a normal maintenance action, the tubes were again cleaned in 2022. THERMOPHASE was re-applied. The tubes were imaged again and shown in Image 4 below. Based on the borescope results the cleanliness of the tubes is excellent and no noticeable fouling. UPMC is considering forgoing cleaning this year.

Image 4: Borescope Image of Chiller Tube 1 Year after THERMOPHASE application Without Cleaning in 2023