

Hello Jamie,

I wanted to inform you of the issues we found with the chiller that I think aided in the mold growth that was found throughout the system. Our diagnostics revealed that circuit 1 on the chiller had sensors and transducers that were reading out of range with each other that allowed the controller of the system to see a fault which subsequently caused that circuit to cycle off on a lockout. There is a similar issue with circuit 2 but did not cause a full lockout of that circuit. In all, these lockouts would only allow for about 30% of the chiller to operate. We found it delivering about 64 degree supply water to the ahu's, (set point is 42 degrees) I also found that someone has turned off the boilers to the air handlers. This is a hot deck / cold deck air handler, it is required that the boilers operate (even if it has outdoor temp reset and not allowing 180 degree water supply) as to allow the proper temperature of air to be delivered to the zones. This would also help with de-humidification by heating the air, dropping the moisture content as the air passes through the heating coils (hot deck) and mixing with the cooled supply air. There is also an issue where the BAS controls are holding the outside air damper at max position. (now manually closed), this combination of 100% humid outside air, no boiler operation and semi cool chilled water, may have been what was needed for the growth to occur. At this time, there seems to be an issue with the BAS in which we cannot see the operations of unit controllers ( comm loss). Our intent is to replace the chiller sensors and transducers and getting the chiller to operate at 100% capacity, restoring boiler operations and verifying the supply temp of water given the outdoor air temp reset, and working the bugs out of the BAS so that full autonomous control and monitoring can be restored.

You may want to consider more frequent filter changes on this system. I believe that there is quarterly maintenance and filter changes being done now. Most cases quarterly changes are sufficient but this site may be an exception.

If you have any questions, feel free to call or email me. Thanks.