From: Daniel Nelson <dnelson@craigschools.com> Subject: Fwd: Boiler Exhaust odors Date: January 9, 2024 at 8:40:19 AM AKST To: Chris Reitan <creitan@craigschools.com>

----- Forwarded message ------From: **Craig D Simonson** <<u>Craig.D.Simonson@jci.com</u>> Date: Mon, Jan 8, 2024 at 3:21 PM Subject: Boiler Exhaust odors To: Daniel Nelson <<u>dnelson@craigschools.com</u>>

Daniel,

I have been doing some research on ways of mitigating to combustion odors from the High School boiler flue. As you are aware the reason this has now become an issue is that before the controls upgrade the air handling unit that brings fresh air into the school was nonfunctional. This unit bring in some fresh air during occupied hours and it appears that when the weather conditions are just so, the fumes from the flue enter the fresh air intake.

One way of mitigating this problem is to increase the height of the boiler stacks, probably an additional 20 feet.

The other is to install a sensor in the fresh air intake to measure the air quality and close the fresh air if poor air is detected. This may be difficult to do as the combustion gases will be diluted and may be at a low concentration. In order for me to quote this please provide a copy of the last boiler inspection combustion analysis so I can determine which gas/gasses we should be detecting.

Thanks,

Craig Simonson

Johnson Controls HVAC Controls Technical Team Lead

Anchorage, AK Cell: <u>509-590-5639</u>

24Hr Service: <u>866-656-8526</u>