

Title- Ames Blue Alert- Chemical Hood Operation

Date- March 8, 2000

Lessons Learned- Observed deterioration in the operation of systems such as hoods should be brought to the attention of line management and Environment, Safety, Health and Assurance immediately, to prevent an increase in exposure potential.

Discussion of Activities- A researcher noticed a reduction in the flow at the face of a hood used for chemical processes. He contacted Environment, Safety, Health and Assurance for a hood evaluation. The Industrial Hygienist tested the hood in question, and had the rest of the hoods in the research area tested, as well. 50% of the hoods showed face velocities that were not within specifications.

An assessment of the status of the hood controls was made. The hoods in question had recently had dampers and controls installed. The damper controls were tested after installation but before being placed in service. When the power was disconnected at the end of the testing, the dampers were left partially closed. The power was restored and the dampers were opened fully, and the power was disconnected again.

Testing confirmed the return of full hood flow for all of the hoods.

Analysis- The researcher was able to determine that the hood flow was less than expected by using a strip of tissue taped to the hood front and by being aware of the changed condition. Awareness of changing conditions within the "safety envelope" of the workplace can prevent possible increases in exposure potential. Promptly calling for an evaluation expedited the remediation.

Recommended Actions- Dampers had been installed in one other research area, and those were tested, as well. All other dampers had been set at the fully open setting. All future installations will be set for the full open position at the completion of the controls testing.

ISMS Core Function(s)- Perform work within controls
Provide feedback and continuous improvement

Contact- Please contact Jim Withers at 4-4743, or withers@ameslab.gov with any questions or comments you may have regarding this event.