

Radiation

Safety Minutes of RSC Subcommittee of May 31, 2013

Committee

Subject: Change of a Relief Damper Detector for the RRPL Ventilation System

Present: D. Beavis, R. Karol, R. Jones, L. Mausner, C. Schaefer, N. Contos, S. Kurczak, S. Pontieri, E. Lessard, A. Etkin, P. Cirnigliaro, J. Reich, and G. Leskody

The RRPL has a ventilation system that is a credited control for the facility. This particular system maintains negative pressure for a variety of hoods, hot boxes, and hot cells. The negative pressure provides protection of personnel from the materials potentially released at the various work stations (hoods, hot boxes,...). The ventilation system maintains the hot area at negative pressure relative to the cold area and the outside. The ventilation system is complex and extensive. George Leskody provided an overview of the ventilation system and some of the changes that have occurred in the past. Most of the material was intended to educate the committee on the system.

The present work being planned is to change a relief damper position detector on the roof. If the pressure becomes too high in the duct there are indicators that generate alarms. If the pressure becomes too high a relief damper opens and allows exhaust to occur on the building roof. The position detector for the relief damper is being changed to a two-position switch to reduce false indications that are generated with the present detector, especially during emergency power tests of the system. The switch is located completely outside the duct work and there will be no intrusion into the ventilation system. The switch will activate alarms and provide all the functions of the present position indicator. Personnel are trained to vacate the area if an alarm is activated and not to re-enter the area until HP has checked the roof for potential contamination.

The damper and exhaust fans are downstream of the filter banks. The HEPA filters have never failed to prevent contamination in the downstream section of the ventilation system. The contamination surveys and alarms on roof is a precaution in case the filters would fail to prevent materials from entering the final duct work.

The committee gave a verbal recommendation for the work to proceed. It does not present a risk to the functioning of the ventilation system.

A short discussion of another job on replacing isolation valves in the ventilation system for hood 57A-1 occurred at the end of the meeting. A discussion of the isolation valve

was carried out at the facility and the present valves on the roof were examined. The new valves are sealed so that contamination seek out the edges of the system or be dragged out on the blade surface when the blade is pulled out. The present valves have chalk applied to the edges to prevent contamination for getting out. The blast gate (valve) allows the downstream filters to be isolated from the system so that they can be changes. The gate blade also allows the air flow to be balanced with the rest of the system. Several other valves are expected to be replaced in the future. A second valve was purchased. The present replacement will occur in conjunction with a change in the downstream HEPA filters. The discussion mainly served as educational for several of the RSC members.

A verbal recommendation for the work to proceed was given.

CC:

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D. Passarello