TELEPHONE CONVERSATION RECORD
NRC Region RIII
Materials Control, ISFSI, and Decommissioning Branch

Person Called: Jack Crawford , MS, CNMT
Radiation Safety Officer, Assistant Director
Office of Radiation Safety (RS)
Environmental Health and Safety (E H&S)

Mary Aldrich, Health Physicist, E H&S, RS

Telephone No.: (573) 882-0931

Licensee: The Curators of the University of Missouri
Columbia, Missouri

License No: 24-00513-32
Docket No.: 030-02278

Callers: George M. McCann, Senior Health Physicist
NRC Region III, Division of Nuclear Materials Safety
Materials Control, ISFSI, and Decommissioning Branch

Darrel Wiedeman, Senior Materials Inspector
NRC Region III, Division of Nuclear Materials Safety
Materials Inspection Branch

Katherine Streit, Health Physicist
NRC Region III, Division of Nuclear Materials Safety
Materials Control, ISFSI, and Decommissioning Branch

Lionel Rodriguez, Reactor Engineer
NRC Region III, Division of Nuclear Materials Safety
Materials Control, ISFSI, and Decommissioning Branch

Dates of Calls: December 22, 2009

SUBJECT: **DISCUSSION OF LICENSEE ACTIONS TAKEN RELATING TO CHARACTERIZATION SURVEY RESULTS OF PICKARD HALL**

On the above date, the RIII NRC staff and the University of Missouri Radiation Safety staff discussed the preliminary results of characterization surveys conducted on the week of December 7th, 2009 in the Pickard Hall property. As discussed in a previous telephone conversation (ML093560017), the characterization surveys were performed by an agreement state licensed contractor, Chase Environmental group, under a reciprocity agreement with the NRC.

A brief history of the site was given by the licensee. Pickard hall dates back to the early 1900's and was originally the university's Chemistry building. There are records that indicate that there was possible radium and uranium separation work conducted by Herman Schmudt in the building during the early 1900's. The licensee is in the pursuit of finding some of the original

construction plans for the building. The building, including the ventilation system, was believed to be remodeled around 1976. Currently, Pickard Hall is home to the university's Museum of Art and Archeology.

The preliminary results of the characterization surveys performed by the contractor indicate that there is contamination possibly above the NRC regulatory limits for unrestricted release. All accessible building floors and lower wall areas were scanned for alpha and beta contamination and gross floor swipes were taken. Additionally, the contractor performed surveys to characterize the attic and old "fume hood" chases. Areas of identified contamination were further investigated with swipe samples and static measurements. Soil and concrete scarifier samples were taken for further analysis. The initial results of the surveys conducted in the museum gallery, which is open to members of the public, indicated no elevated levels of contamination. The greatest exposure reading was located in the basement of the building with a value of 120 microR/hr. Areas where contamination was identified or the preliminary results indicate there exists the potential for contamination were the mechanical room (room 13) in the basement, a storage room adjacent to the mechanical room (room 12), a room which contained an office space (room 27), the attic of the building, and historic "fume hood" chases. The contamination is believed to be radium contamination, but the licensee is awaiting the contractor's final analysis to determine the final radionuclide makeup of the contamination.

The licensee indicated that the mechanical room is normally not occupied and access to the room is now restricted with a requirement for basic personnel protective equipment. No removable contamination was identified in the readily accessible areas of the storage room adjacent to the mechanical room, but access has been restricted to authorized persons only and sign in requirements put in place. The occupant of Room 27 had previously been monitored with a TLD, with results indicating no elevated dose. However, as a result of the initial information from the surveys, access has been restricted to this room and the person normally occupying the room moved to another location. The attic space is difficult to access, but the licensee also restricted access and building workers have been notified to notify radiation safety staff if entry is necessary since limited surveys and swipes of the attic identified removable contamination. The licensee has identified 6 brick fume hood chases in the attic with contamination. These chases were most likely connected to historic laboratory fume hoods when the building was used as the chemistry building of the university. There is a possibility that there are more of these. However, these seem to be inactive and not tied to the current ventilation system in use for the building.

The licensee agreed to provide the characterization survey results to the NRC staff as soon as they receive them from the decommissioning contractor. The results are expected to be received by the NRC staff within a week, by December 29, 2009.

End of conversation Record. No further discussion.