Telephone Conversation Record

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 David Burgess, Health Physicist, E, H&S, RS Gary Lewis, Health Physicist, E, H&S, RS
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Licensee:	University of Missouri Columbia Columbia, Missouri
License No.: Docket No.:	24-00513-32 030-02278
Callers(s):	George M. McCann, Senior Health Physicist ***/RA/*** NRC Region III (RIII), Division of Nuclear Materials Safety (DNMS), Decommissioning Branch Kevin G. Null, Senior Health Physicist ***/RA/*** NRC, RIII, DNMS, Materials Licensing Branch
Date(s) of Call:	March 6, 7, and 8, 2007

SUBJECT: DISCUSSION OF NRC INSPECTION SCHEDULED FOR THE WEEK OF MARCH 12, 2007 (NRC INSPECTION NO. 030-02278/07-001)

On March 6, 2007, Mr. Crawford was contacted by G. McCann, in response to a call from Mr. Crawford on the same date. Mr. Crawford wanted to know when he could expect us on Monday, March 12, 2007, so he could schedule the entrance meeting with his management. Additionally, he informed us that he would be available during the week of March 12.

During this call the requirements of 10 CFR Part 20, Subpart E, Section 20.1402, *Unrestricted Use Criteria*, 10 CFR Part 30.35 *Financial Assurance and Record keeping for Decommissioning* (specifically 30.359g)), 10 CFR 30.36 *Expiration and Termination of Licenses and Decommissioning of Sites and Separate Buildings or Outdoor Areas* (specifically, 3036(d), 30.36(g) and 30.36(j), NUREGs 1757, Vol. 1 and the Argonne

National Laboratories dose modeling programs RESRAD and RESRAD Build, were discussed. The records and files, which we will need to review were discussed in general. It was agreed to call Mr. Crawford back on Wednesday at 11:15 a.m. He requested that we discuss our needs with him and members of his staff responsible for the surveys and generation of records for the release of use areas, buildings and associated facilities.

Mr. Crawford indicated during the call that prior to 1970, that all State of Missouri campuses were under a single license possessed by the University of Missouri, Columbia campus. After that date, all the various University of Missouri campuses obtained their own licenses. Thus, it may be difficult to identify all the different records relating to use facilities, locations and areas.

On March 7, 2007, Messrs. McCann and Null, discussed with Mr. Crawford and members of his radiation safety staff the general program areas, which we would review during our upcoming inspection. Specifically, we discuss the information outlined in Attachment 1 to this telephone conversation record. We agreed to provide Mr. Crawford a copy of this conversation record.

On March 8, 2007, Mr. Crawford was advised that we would be on-site around 2:00 p.m. Monday, March 12th. We discussed when an entrance meeting may be scheduled.

Attachment 1: ***University of Missouri - Columbia***

University of Missouri - Columbia
Attachment 1

1. Evaluate all past areas of use for each license issued to the University. Include all licenses previously and currently issued to the University. The evaluation and records review should be from the initial issuance date for each license. The evaluation should be specific for areas and locations where materials with half lives greater than 120 days were used. If it cannot be determined that only material with half lives less than 120 days was used at a particular location or area, then you should assume that longer lived materials may also have been used in that area.

   Each area must be evaluated for spills, hold-up areas, and potential for materials which may not have been adequately evaluated after cessation of work activities. Areas where sealed sources may have been used/stored and there are no leak-test records demonstrating that the sources were not leaking, or areas where such sources were used/stored where there may be a potential for leakage, e.g., stored/used in adverse environmental conditions, must also be considered.

2. Please provide hard and electronic procedures used by the University to survey and release buildings, work areas, etc., for unrestricted release. Also, include procedures for processing and storing radioactive waste. The procedures should also specify the release criteria used, both current and in the past during previous releases if the criteria were different.

3. Provide management documents and procedures/tools used to insure that persons using radioactive materials know when to notify the Radiation Safety Staff of a spill, and how to release former use areas for unrestricted use. Also, discuss and provide documentation used to track and monitor past and current work areas where spills have occurred.

4. Our initial review of current and past license documents identified the following areas that are, or have been, licensed by the NRC as locations of use. We have requested retired University of Missouri licenses that have been archived If we identify any additional sites we will let you know.

   Please review the list below and identify any other sites where licensed material may have been used in past. For each location listed below and any additional sites that you identify, please include specific locations, type of material used, amount used and type of research/experimental activities that were conducted:

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- Main Campus - Columbia, MO
- Ellis Fischel Cancer Center
- Columbia Regional Hospital
- Current and past waste handling, storage and processing locations.

5. Many broad scope licensees have engaged in, at one time or another, a number of the activities listed below. Please indicate if the University of Missouri - Columbia has conducted any of the following. For each activity identified, please include the specific locations, type of material used, amount used and type of research/experimental activities that were conducted:

- Any radioactive waste burials pursuant to 10 CFR Part 20, Section 20.304 (rescinded) and 10 CFR 20.2002 (alternate disposals).

- Any above/below ground hold-up and acid dilution or sampling tanks, etc. This should include any off-site rad disposal locations, past and present. Also, any known outdoor soil contamination, which could have resulted from accidental releases, or leakage from pipes, tanks, etc.

- Other high activity processes, for example hot cells, incineration, compaction or chemical/physical processing activities of waste. On-site ash burial sites on any campus.

- Any animal research facilities and field study areas, involving current and past activities, where, when, how, amt's used, material used.

  Current activities Y N If N, status of buildings., barns, storage areas/pens, etc.

  Animal excrement burial on site Y N If Y, where, when, etc.

  Animal Carcasses - described how this material is disposed.

  Has there been any clean-up/decon of field study areas?

6. Discuss or provide the University's Historical Site Assessment (HSA), which has been developed to insure that past locations of use have been adequately addressed. Typically, a HSA describes each location of use, describes the activities performed, the types and quantities of materials used, and impacts on facilities, personnel and the environment. This is partially based on the requirements s of 10 CFR 30.35(g), which is excerpted as follows:

   (g) Each person licensed under this part or parts 32 through 36 and 39 of this chapter shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use.

   Information the Commission considers important to decommissioning consists of–

   (1) Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site.

   (2) As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored, and of locations of

possible inaccessible contamination such as buried pipes which may be subject to contamination.

(3) Except for areas containing only sealed sources (provided the sources have not leaked or no contamination remains after any leak) or byproduct materials having only half-lives of less than 65 days, a list contained in a single document and updated every 2 years, of the following:

(i) All areas designated and formerly designated restricted areas as defined in 10 CFR 20.1003 (for requirements prior to January 1, 1994, see 10 CFR 20.3 as contained in the CFR edition revised as of January 1, 1993);

(ii) All areas outside of restricted areas that require documentation under Sec. 30.35(g)(1).

(iii) All areas outside of restricted areas where current and previous wastes have been buried as documented under 10 CFR 20.2108; and

(iv) All areas outside of restricted areas that contain material such that, if the license expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in 10 CFR Part 20, Subpart E, or apply for approval for disposal under 10 CFR 20.2002.

(4) Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds.