



# State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF RADIATION CONTROL

Michael O. Leavitt  
Governor  
Dianne R. Nielson, Ph.D.  
Executive Director  
William J. Sinclair  
Director

168 North 1950 West  
P.O. Box 144850  
Salt Lake City, Utah 84114-4850  
(801) 536-4250 Office  
(801) 531-8128 Fax  
(801) 536-4414 T.D.D.

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JANUARY 14 1994

Richard L. Bangart, Director  
State Agreements Program  
Office of State Programs  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Bangart:

In response to State Agreements program information item SP-94-011, concerning a review of license files containing information on experiments on humans, I can report that the Utah Division of Radiation Control does not have information to submit.

Utah became an Agreement State on April 1, 1984. A review of files transferred from the NRC Region IV Office indicate that information for research on humans prior to the dissolution of the Atomic Energy Commission (AEC) in 1975 was not a part of the files. I suggest that the information you seek may be available in your archived files.

If you have further questions regarding this letter, please contact me at (801) 536-4250.

Sincerely,

Craig W. Jones, Section Manager  
Division of Radiation Control

RUBEN SAS, HAZ, RAY, OSHA, LO file



Post-It brand fax transmittal memo 7671		# of pages 2	
To	Lloyd Bolling	From	Bob Quillin
Co	USWRC	Co	CDM
Dept	State Programs	Phone	303-652-3038
Fax #		Fax #	

Environmental Health Services  
 1706 Rockwell Hall  
 Fort Collins, Colorado 80523  
 (303) 491-6748  
 FAX: (303) 491-4804

January 14, 1994

Mr. Robert Quillin, Director  
 Radiation Control Division  
 Colorado Department of Health  
 4300 Cherry Creek Drive  
 Denver, Colorado

Dear Mr. Quillin,

In response to your fax dated January 11, 1994, we are conducting a search to determine if any individuals were deliberately exposed to radiation, for purposes other than radiopharmaceutical development, at Colorado State University during the years prior to 1975. To the extent possible, we have interviewed former faculty members and students and are in the process of reviewing files.

The interest in radiation bioeffects and use of tracers in biological research at CSU dates back to 1959. Dr. William Carlson was the principal researcher involved in these areas at that time. The Department of Radiological Health Sciences (formerly Radiation Biology) was established in 1964. Dr. Carlson was the first department head. He later became Dean of the College of Veterinary Medicine and Biological Sciences. Dr. Carlson left CSU to become President of the University of Wyoming in 1968. He and other current and former CSU faculty members were interviewed by telephone this week in regard to possible use of radionuclides in human volunteers in the past.

Only two such incidents have been identified. One involved administration of 1.0 microcurie of K-42 each to approximately six faculty members and, possibly, a graduate student, sometime between 1965 and 1967 for the purpose of calibrating the "Whole Body Counter". This is a device which is used to measure radioactivity in humans and animals. The CSU "Whole Body Counter" was originally used for fallout and body composition studies.

The second involved exposure of several individuals to Rn-222 to determine distribution of radon daughters in the body in conjunction with research on radon daughter exposure to uranium miners.

In both cases records have been requested. More information will be available within the next two weeks. Each of these cases involved knowledgeable individuals performing functions with which they were familiar on the basis of their occupation and

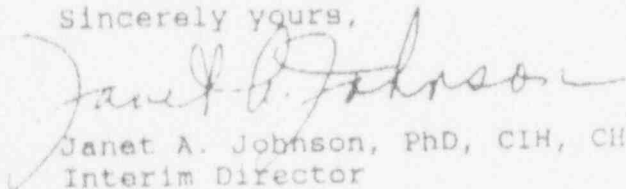
professional training. Doses to these individuals were within the occupational radiation dose limits in effect at that time.

Two other incidents have been reported on an anecdotal basis, but we have found no evidence to verify them. According to Dr. Carlson, at one time one or more animals were injected with radioactively labeled steroids. The beef from the animals apparently was ingested by volunteers and the radioactivity in the volunteers measured in the "Whole Body Counter". One other individual recalled getting permission of the Colorado Department of Health to consume meat from an animal used previously in research simply so the meat would not go to waste. An incident involving voluntary ingestion of milk containing I-131 for the purpose of calibrating the "Whole Body Counter" has also been identified, although the individual who has been responsible for the "Whole Body counter" since the time of its construction does not recall either incident. Other individuals who would have known about such studies do not recall these particular incidents. At this time, we have not located any written record of these incidents.

No other radiation exposures pertinent to your request have been identified in the interviews conducted to date. We are still examining files, but are unlikely to uncover any other incidents since most of the individuals who would have been involved in research using radionuclides and can be contacted, have already been interviewed.

After a review of the records, we will supplement the information regarding the foregoing incidents. In addition, if we identify additional information that is relevant to this request, we will make it available to you. Please call me if you have any questions.

Sincerely yours,



Janet A. Johnson, PhD, CIH, CHP  
Interim Director