National Radiobiology Archives

Tissue and Document Collection Relocation Plan

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The funding situation at the Department of Energy Office of Health and Environmental Research (DOE/OHER) and the changing mission of the Pacific Northwest National Laboraotry (PNNL) have made it apparent that it will not be cost-effective to retain the tissue and document collections in the 1200 ft^2 331-G building as we have been doing. PNNL has downsized and made many cost-cutting changes. The most significant change for the Archives is a revised method of building space cost-recovery. Prior to this year, building space, especially laboratory facilities, was considered a PNNL asset which all research projects contributed toward equally. This year, space costs must be recovered at the division level, rather than laboratory-wide.

The Health Division has generously accepted this burden for the current year, but it is obvious that it cannot sustain this level of support perpetually. (In fact, the 331-G building has been placed on the list of facilities to be closed as described in the appended all staff memo on Consolidation of Facilities. Two other facilities, 3767 and 318 Trailer 2, formerly occupied by the NRA, were vacated at the close of fiscal year 1995).

We considered two alternatives, 1) dispose of all tissue samples and send the document collection to records storage, and 2) find an alternate storage location which would preserve the collections and provide informed access in the future. Since alternative 1 implied that the NRA would be reduced to an electronic database with no supporting scientific materials, I concentrated on option 2. The obvious alternate location for the NRA materials is the USTUR, which has a similar collection in its Spokane facility. I approached Ron Katheren and we have agreed on a plan to transition the NRA holdings to the USTUR over the course of this fiscal year. DOE/OHER is seriously considering a grant request from the USTUR to cover the cost of moving and storage.

I need advice about details of this transition plan. As shown on the enclosed list, the paraffin blocks, histopathology slides, and documents will be transferred to the USTUR. That implies that the NRA will dispose of the remaining materials. Unless members of the Advisory Committee have a convincing argument to the contrary, I plan on the following disposal schedule.

Materials to be Discarded

Material	*When*	*Where*
Davis Radiographs	As soon as possible	Salvage for Silver content
Davis Bones in Alcohol	February	Mixed hazardous waste
Davis Tissues in Formalin	March	Mixed hazardous waste

Rational for Disposal

Radiographs
We have not had any requests for access to the radiographs in 5 years, and I doubt that it is worth the investment to digitize them. They occupy considerable floor space in 331-G, and if I dispose of them, I will have more room to package the other materials as waste.

Bones in Alcohol
Interest in the bone collection has been minimal: one researcher, Jamal Akabini, referenced the collection in a (unfunded) micro dosimetry grant proposal. On the other hand, it has been said that these bones are the most unique collection in the archives. As you remember, the bones were harvested from the frozen carcases and place in alcohol. They contain either radium or strontium, and the exposure history of the animals is extremely well known. I am reluctant to dispose of them, but there is concern about funding for their disposal in the future.

Tissues in Formalin
The tissue collection has been accessed several times since it was moved from Davis in 1990. Most notably, the brains of almost all the long lived, low-level and control dogs have been sectioned and analyzed for indications of Alzheimer's disease by a group of researchers lead by Mike Russell. Other uses have focused on controls. I believe that there will be very few requests for this type of material in the future.

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Materials to be Transferred to the United States Transuranium Registries (USTUR)

Tissues

Units	*Unit Volume (ft^3)*	*Total Volume (ft^3)*	*Description of Container*
51	0.69	35	Tubs containing paraffin tissue blocks
62	1.4	87	Plastic "Tissue-Tec" Modules containing paraffin tissue blocks
4	1	4	Boxes containing paraffin bone blocks
73	0.88	64	6 drawer metal histopathology slide cabinets
14	1.46	20	14 drawer metal histopathology slide cabinets
		213	Total volume of material to be transferred to USTUR

Tissue Collections:

University of California at Davis Collection

This is a collection of histopathology slides and paraffin blocks from each of the 1437 beagle dogs in the ^{226}Ra, and ^{90}Sr life span studies study conducted at the Laboratory for Energy-Related Health Research (LEHR). This collection was shipped to the NRA Tissue Archives in March 1990.

Pacific Northwest Laboratory (PNL) Collection

PNL Beagle Studies: The histopathology slides and paraffin blocks associated the inhaled $^{239}PuO_2$, $^{238}PuO_2$, and $^{239}Pu(NO_3)_4$ life span studies are available for each of 509 animals with over 40,000 pathology observations. This collection was transferred to the Tissue Archives in July 1995.

PNL Rat Studies: The histopathology slides and paraffin blocks associated the inhaled $^{239}PuO_2$ life span study are available for each of 3157 animals with 5297 pathology observations. The specimens are primarily nose, trachea, and lung tissues in origin. This collection was transferred to the Tissue Archives in July 1994.

PNL Rodent Studies: The histopathology slides and paraffin blocks associated the inhaled Radon life span study are available. The specimens are primarily nose, trachea, and lung tissues in origin. This collection was transferred to the Tissue Archives in August 1995.

Documents:

Type	*Status**	*Description*	*Total volume (ft^3)*
Hand written research notes which supplement computer records. Bound laboratory note books are NOT included.	C	University of California at Davis life-span dog clinical records	65
	U	PNL life-span dog clinical and experimental records	126
	U	PNL Rat Studies—laboratory records from studies conducted by CL Saunders	11
	U	PNL Rodent Studies—FL Cross's radon laboratory records	30
preprints, letters, documents	C	LBL non-human primate (Durbin) collection	1.5
photocopies	U	Finkel collection	1
photocopies, letters, documents	C	Colorado State University collection	2
inventory letters, reprints, photocopies, and books	C	Stannard collection of supporting materials for book: *Radioactivity and Health, A History*	64
govt. documents	C	CIRRPC (Committee on Interagency Radiation Research and Policy Coordination) Collection	1
govt. documents	C	Life-span beagle study laboratory annual reports to the DOE	10
photocopy	U	ITRI single page description of major animal radiobiology studies including reprints of major publications	.1
reprints	U	University of Rochester bound reprints collection	3
reprints	U	RG Thomas collection	2.3
descriptions of NRA procedures, software, and interactions with users	U	NRA technical files	10
		Total volume to be transferred to USTUR	329.9

* Status codes: C = Conserved (binders, staples, etc. removed; materials placed in acid free folders and acid free boxes. U = Unconserved, materials need to be conserved; this will reduce volume by as much as one half.

Document Collections:

University of California at Davis Collection—65 Boxes.

The UC Davis Collection contains clinical records and supporting documentation for each beagle dog in the ^{226}Ra, and ^{90}Sr life span studies conducted at the Laboratory for Energy-Related Health Research (LEHR). These files include annual progress reports, clinical records for both control and exposed animals. A typical folder contains a lineage chart, histopathology report, pathology report, all clinical workups, whole body counts, electrocardiograms, pictures/slides of the animal (or remarkable tissue growths), for the life of each animal. This collection was shipped to the NRA in June 1992 and compliments the LEHR specimens stored in the Tissue Archives.

Pacific Northwest Laboratory (PNL) Collection

PNL Beagle Studies—126 boxes.

These documents are related to the PNL life-span beagle studies of inhaled $^{239}PuO_2$, $^{238}PuO_2$, and $^{239}Pu(NO_3)_4$ conducted by Drs. JF Park and GE Dagle The materials available include animal clinical records, radio bioassay count sheets, and photocopies of the associated laboratory notebooks. The original laboratory notebooks are in permanent storage at the Battelle PNL Records Center and are available upon request through the PNL Records Management staff. This collection was transferred to the Document Archives in July 1995. **These materials will occupy about 30 boxes when conserved.**

PNL Rat Studies—11 boxes.

These documents are related to the PNL low-level $^{239}PuO_2$ inhalation rodent studies conducted by Dr. Charles Sanders. The materials available include animal clinical records, radio bioassay count sheets, and photocopies of the associated laboratory notebooks. The original laboratory notebooks are in permanent storage at the Battelle PNL Records Center and are available upon request through the PNL Records Management staff. This collection was transferred to the Document Archives in June 1994. **These materials will occupy about 6 boxes when conserved.**

PNL Rodent Studies—30 boxes.

These documents are related to the PNL low-level Radon inhalation rodent studies conducted by Dr. Fred Cross. The materials available include animal clinical records, radio bioassay count sheets, and photocopies of the associated laboratory notebooks. The original laboratory notebooks are in permanent storage at the Battelle PNL Records Center and are available upon request through the PNL Records Management staff. This collection was transferred to the Document Archives in August 1995. **These materials may occupy about 10 boxes when conserved.**

LBL Non-human Primate Studies (CLOSED): —1.5 linear feet.

The materials in this collection are related to the ^{90}Sr, ^{238}Pu, and ^{241}Am studies conducted at LBL in primates. These materials, donated in 1990, are being stored as a sequestered donation; the materials are not available for general access until release by LBL. The agreement between the NRA and Dr. Durbin states the LBL laboratory director must authorize access to these materials. This sequestered collection consists of photocopies; all original data records and research materials remain in the custody of Dr. Durbin at LBL.

Dr. Miriam Finkel Collection—1.0 linear foot.

These photocopies of documents were submitted by Dr. Patricia Durbin, LBL, in October 1994. The Finkel Collection includes the 1960-1965 ^{226}Ra animal records, cage sheets, gross pathology, and final diagnoses. The gross pathology laboratory log books from several other studies are available:

1950-1951—MsTh, RdTh, Thx, and RdTh-Thx
1951—intravenously injected single dose ^{226}Ra
1951—intravenously injected single dose ^{239}Pu
1954—intravenously injected ^{45}Ca
1956—single dose intravenously injected ^{90}Y
1954—intravenously injected ^{90}Sr
1958—ingested ^{90}Sr
No date—^{210}Po

There are no electronic or specimen data available for these studies at this time.

Colorado State University (CSU) Collection—0.33 linear feet.

This collection includes an incomplete set of Annual Reports, the final report to the Food and Drug Administration, excellent documentation of the CSU electronic database, and the support documentation for the transfer of the final electronic database to the NRA. These materials were acquired by the NRA in September 1994.

Dr. J. Newell Stannard Collection—63.0 linear feet.

This collection contains the supporting documentation for Dr. Stannard's book, *Radioactivity and Health, A History*. Dr. Stannard began donating these documents in 1989. Included in this collection are rare journal articles, *Vignettes of Radiation Workers*—interviews recorded on videotape produced by the U.S. Department of Health and Human Services, and a series of personal interviews between Dr. Stannard and key individuals in the field of radiation research. These interviews are recorded on audio cassette tapes and include full transcripts edited by Dr. Stannard. The redacted transcripts of the interviews are available at the DOE Reading Room located in the Washington State University—Tri-City Campus Library. A finding aid document which describes the entire Stannard Collection is available upon request. The NRA Stannard Collection compliments the University of Tennessee Library Radiation Research Collection which contains Dr. Stannard's original writings.

CIRRPC (Committee on Interagency Radiation Research and Policy Coordination) Collection—1.0 linear feet.

A complete collection of annual reports and guidance publications to the DOE from the CIRRPC. Reprints date from 1984—1995. Identical materials are also housed at the National Archives and Records Administration (NARA) in Washington, D.C., the Library of Congress, the University of Tennessee Library Radiation Research Collection, and the Office of Scientific and Technical Information (OSTI).

Inhalation Toxicology Research Institute (ITRI) Collection

ITRI Rodent Studies: —.01 linear foot. This collection currently consists of a finding aid document assembled by Dr. David Lundgren in April 1993. The document describes 12 studies conducted at ITRI beginning in 1972.

University of Rochester Collection—3.0 linear feet.

This is a comprehensive, bound reprint collection from the Atomic Energy Commission work completed between 1943 and 1962. This research was conducted in the School of Medicine at the University of Rochester. This collection also includes a portrait of Dr. Stafford L. Warren and a portrait of Dr. Charles R. Dunham

National Radiobiology Archives (NRA) Technical Files—~10.0 linear feet.

Record copy technical files documenting NRA business, electronic database, document archives, and tissue archives.