NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Idaho State University	3. License Number SNM-1373, Amendment 1
2. Pocatello, Idaho 83209-0009	4. Expiration Date September 30, 2008
	5. Docket No. 70-1374 Reference No.

6. Byproduct Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum amount that Licensee May Possess at Any One Time Under This License
A. Uranium enriched to ≤ 20 wt% in the U-235 isotope	A. [redacted]	A. [redacted]
B. Uranium enriched to < 93 wt% in the U-235 isotope	B. [redacted]	B. [redacted]

9. Authorized use: For use in accordance with the statements, representations, and conditions specified in the application dated July 24, 1998, and supplements dated August 21 and September 25, 2004, and February 28, 2005.

10. Authorized place of use: The Lillibridge Engineering Laboratory Building, the Particle Beam Laboratory in the Physical Science Building, and the Accelerator Center at Idaho State University, Pocatello, Idaho.

~~OFFICIAL USE ONLY~~
~~May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552)~~

~~Exemption number 2~~
~~Nuclear Regulatory Commission review required before public release.~~

~~Gary S. Janosko, Chief, FCFB/FCSS/NMSS~~
~~Name and organization of person making determination~~

~~Date of Determination 4/14/05~~

NRC FORM 374A U.S. NUCLEAR REGULATORY COMMISSION	
MATERIALS LICENSE SUPPLEMENTARY SHEET	License Number SNM-1373 Docket or Reference Number 70-1374 Renwal

11. Release of equipment or materials for unrestricted use, or from contaminated to clean areas onsite, shall be in accordance with the attached "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Materials," April 1993.

12. Emergency Plan: Authorized activities at the Idaho Accelerator Center shall be limited to [redacted] until an emergency plan, or an evaluation, is submitted and approved pursuant to 10 CFR 70.22(i).

FOR THE NUCLEAR REGULATORY COMMISSION

Date: 4/14/05 By: /RA/
Gary S. Janosko, Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS
Washington, DC 20555

Attachment:
Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material

GUIDELINES FOR DECONTAMINATION OF FACILITIES AND EQUIPMENT PRIOR TO RELEASE FOR UNRESTRICTED USE OR TERMINATION OF LICENSES FOR BYPRODUCT, SOURCE, OR SPECIAL NUCLEAR MATERIAL

U.S. Nuclear Regulatory Commission
Division of Fuel Cycle Safety
and Safeguards
Washington, DC 20005

April 1993

Attachment

The instructions in this guide, in conjunction with Table 1, specify the radionuclides and radiation exposure rate limits which should be used in decontamination and survey of surfaces or premises and equipment prior to abandonment or release for unrestricted use. The limits in Table 1 do not apply to premises, equipment, or scrap containing induced radioactivity for which the radiological considerations pertinent to their use may be different. The release of such facilities or items from regulatory control is considered on a case-by-case basis.

I. The licensee shall make a reasonable effort to eliminate residual contamination.

II. Radioactivity on equipment or surfaces shall not be covered by paint, plating, or other covering material unless contamination levels, as determined by a survey and documented, are below the limits specified in Table 1 prior to the application of the covering. A reasonable effort must be made to minimize the contamination prior to use of any covering.

III. The radioactivity on the interior surfaces of pipes, drain lines, or ductwork shall be determined by making measurements at all traps, and other appropriate access points, provided that contamination at these locations is likely to be representative of contamination on the interior of the pipes, drain lines, or ductwork. Surfaces of premises, equipment, or scrap which are likely to be contaminated but are of such size, construction, or location as to make the surface inaccessible for purposes of measurement shall be presumed to be contaminated in excess of the limits.

IV. Upon request, the Commission may authorize a licensee to relinquish possession or control of premises, equipment, or scrap having surfaces contaminated with materials in excess of the limits specified. This may include, but would not be limited to, special circumstances such as razing of buildings, transfer of premises to anther organization continuing work with radioactive materials, or conversion of facilities to a long-term storage or standby status. Such requests must:

   I. Provide detailed, specific information describing the premises, equipment or scrap, radioactive contaminants, and the nature, extent, and degree of residual surface contamination.

   II. Provide a detailed health and safety analysis which reflects that the residual amounts of materials on surface areas, together with other considerations such as prospective use of the premises, equipment, or scrap, are unlikely to result in an unreasonable risk to the health and safety of the public.

V. Prior to replace of premises for unrestricted use, the licensee shall make a comprehensive radiation survey which establishes contamination is within the limits specified in Table 1. A copy of the survey report shall be filed with the Division of Fuel Cycle Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and also the Administrator of the NRC Regional Office having jurisdiction. The report shall be filed at least 30 days prior to the planned date of abandonment. The survey report shall:

   I. Identify the premises.
   II. Show that reasonable effort has been made to eliminate residual contamination.
   III. Describe the scope of the survey the general procedures followed.
   IV. State the findings of the survey in units specified in the instruction.

   Following review of the report, the NRC will consider visiting the facilities to confirm the survey.

TABLE 1

ACCEPTABLE SURFACE CONTAMINATION LEVELS

NUCLIDES (1)	AVERAGE (2, 3, 6)	MAXIMUM (2,4,6)	REMOVABLE (2,5,6)
U-nat, U-235, U-238, and associated decay products	5,000 dpm a/100 cm2	15,000 dpm a/100 cm2	1,000 dpm a/100 cm2
Transuranics, Ra-226, Ra-228, Th-230, Th-22, Pa-231, Ac-227, I-125, I-129	100 dpm/100 cm2	300 dpm /100 cm2	20 dpm/100 cm2
Th-nat, Th-232, Sr-90, Ra-223, Ra-224, U-232, I-126, I-131, I-133	1000 dpm/100 cm2	3000 dpm/100 cm2	200 dpm/100 cm2
Beta-gamma-emitters (nuclides with decay modes other than alpha emission or spontaneous fission) except Sr-90 and others noted above.	5000 dpm by/100 cm2	15,000 dpm b/100 cm2	1000 dpmby/100 cm2

(1) Where surface contamination by both alpha- and beta-gamma-emitting nuclides exists, the limits established for alpha- and beta-gamma-emitting nuclides should apply independently.

(2) As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.

(3) Measurements of average contaminant should not be averaged over more than 1 square meter. For objects of less surface area, the average should be derived for each such object.

(4) The maximum contamination level applies to an area of not more than 100 cm2.

(5) The amount of removable radioactive material per 100 cm2 of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of less surface area is determined, the pertinent levels should be reduced proportionally and the entire surface should be wiped.

(6) The average and maximum radiation levels associated with surface contamination resulting from beta-gamma-emitters should not exceed 0.2 mrad/hr at 1 cm and 1.0 mrad/hr at 1 cm, respectively, measured through not more than 7 milligrams per square centimeter of total absorber.