

NRC Form 313 I (12-81) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION		1. APPLICATION FOR: <i>(Check and/or complete as appropriate)</i>	
APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL				a. NEW LICENSE	
<i>See attached instructions for details.</i> Completed applications are filed in duplicate with the Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety, and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or applications may be filed in person at the Commission's office at 1717 H Street, NW, Washington, D. C. or 7915 Eastern Avenue, Silver Spring, Maryland.				b. AMENDMENT TO: LICENSE NUMBER X 02-17208-01	
				c. RENEWAL OF: LICENSE NUMBER	
2. APPLICANT'S NAME <i>(Institution, firm, person, etc.)</i> Bureau of Land Management USDI TELEPHONE NUMBER: AREA CODE — NUMBER EXTENSION FTS 261-5519 Commercial 602-241-5519			3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION John L. Wilson, Safety Manager TELEPHONE NUMBER: AREA CODE — NUMBER EXTENSION FTS 261-5519 Commercial 602-241-5519		
4. APPLICANT'S MAILING ADDRESS <i>(Include Zip Code)</i> <i>(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)</i> P.O. Box 16563 Phoenix, AZ 85001 (Location - 3707 N. 7th Street, Phoenix)			5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED <i>(Include Zip Code)</i> List of Locations Attachment "C"		
(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)					
6. INDIVIDUAL(S) WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF LICENSED MATERIAL <i>(See Items 16 and 17 for required training and experience of each individual named below)</i>					
FULL NAME			TITLE		
a. List of trained operators Attachment "B"					
b.					
c.					
7. RADIATION PROTECTION OFFICER John L. Wilson, Safety Manager			<i>Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.</i> See Attachment "B"		
8. LICENSED MATERIAL					
L I N E NO.	ELEMENT AND MASS NUMBER A	CHEMICAL AND/OR PHYSICAL FORM B	NAME OF MANUFACTURER AND MODEL NUMBER <i>(If Sealed Source)</i> C	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME D	
(1)	Cesium 137 Americium 241/Be	Combined Sealed Source CPN-131	Portaprobe BR Mark II C7610768	10 MCI CS137 50 MCI AM241	
(2)	Cesium 137 Americium 241/Bc	Combined Sealed Source	Portaprobe BR Mark II C76071726	10 MCI CS137 50 MCI AM241	
(3)	Cesium 137 Americium 241/Be	Sealed Source Sealed Source	Portaprobe MCI M 19113009	10 MCI CS137 50 MCI AM241	
(4)					
DESCRIBE USE OF LICENSED MATERIAL E					
(1)	For use in Campbell Pacific Nuclear Portaprobe Model BR and Model MC Series				
(2)	Gauges for moisture density measurements.				
(3)					
(4)	8508050074 850624 REGS LIC30 02-17208-01 PDR				

9. STORAGE OF SEALED SOURCES

LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED. A.	NAME OF MANUFACTURER B.	MODEL NUMBER C.
(1)	Portaprobe Density Meter	Campbell Pacific Nuclear	BR Mark II
(2)	Portaprobe Denisty Meter	Campbell Pacific Nuclear	BR Mark II
(3)	Portaprobe Density Meter	Campbell Pacific Nuclear	MC I
(4)			

10. RADIATION DETECTION INSTRUMENTS

LINE NO.	TYPE OF INSTRUMENT A.	MANUFACTURER'S NAME B.	MODEL NUMBER C.	NUMBER AVAILABLE D.	RADIATION DETECTED (alpha, beta, gamma, neutron) E.	SENSITIVITY RANGE (milliroentgens/hour or counts/minute) F.
(1)	None required for this applicaiton.					
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☐ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

Not applicable

☐ b. CALIBRATED BY APPLICANT

Attach a separate sheet describing method, frequency and standards used for calibrating instruments.

Not applicable

12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A.	SUPPLIER (Service Company) B.	EXCHANGE FREQUENCY C.
<input checked="" type="checkbox"/> (1) FILM BADGE <input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD) <input type="checkbox"/> (3) OTHER (Specify): _____ _____ _____	Radiation Detection Company 162 Wolfe Road P.O. Box 1414 Sunnyvale, California 94008	<input type="checkbox"/> MONTHLY <input checked="" type="checkbox"/> QUARTERLY <input type="checkbox"/> OTHER (Specify): _____ _____ _____

13. FACILITIES AND EQUIPMENT (Check were appropriate and attach annotated sketch(es) and description(s).)

- ☐ a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC.
☒ b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC. (Attachment A Item 4)
☐ c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.
☐ d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

None

b. IF COMMERCIAL WASTE DISPOSAL SERVICE IS NOT EMPLOYED, SUBMIT A DETAILED DESCRIPTION OF METHODS WHICH WILL BE USED FOR DISPOSING OF RADIOACTIVE WASTES AND ESTIMATES OF THE TYPE AND AMOUNT OF ACTIVITY INVOLVED. IF THE APPLICATION IS FOR SEALED SOURCES AND DEVICES AND THEY WILL BE RETURNED TO THE MANUFACTURER, SO STATE.

Instruments will be returned to Manufacturer for disposal.

INFORMATION REQUIRED FOR ITEMS 15, 16 AND 17

Describe in detail the information required for Items 15, 16 and 17. Begin each item on a separate page and key to the application as follows:

Detailed in Attachment "A"

15. RADIATION PROTECTION PROGRAM. Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures (if needed), day-to-day general safety instruction to be followed, etc. If the application is for sealed source's also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit.

16. FORMAL TRAINING IN RADIATION SAFETY. Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc.

Detailed in Attachment "B"

- a. Principles and practices of radiation protection.
 - b. Radioactivity measurement standardization and monitoring techniques and instruments.
 - c. Mathematics and calculations basic to the use and measurement of radioactivity.
 - d. Biological effects of radiation.
17. EXPERIENCE. Attach a resume for each individual named in Items 6 and 7. Describe individual's work experience with radiation, including where experience was obtained. Work experience or on-the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used.

Detailed in Attachment "B"

18. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

WARNING.—18 U.S.C., Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

<p>a. LICENSE FEE REQUIRED (See Section 170.31, 10 CFR 170)</p> <p>Exempt by Part 170.11(5) Applicant is a Government Agency</p>	<p>b. CERTIFYING OFFICIAL (Signature) <i>John L. Wilson</i></p> <p>c. NAME (Type or print) John L. Wilson</p>
<p>(1) LICENSE FEE CATEGORY:</p>	<p>d. TITLE Safety Manager</p>
<p>(2) LICENSE FEE ENCLOSED: \$</p>	<p>e. DATE 70212</p>



CAMPBELL PACIFIC NUCLEAR CORPORATION

NUCLEAR SAFETY PROCEDURES

In accordance with our radiological health license, the following nuclear safety procedures will be followed at all times. These procedures are a part of the license and a copy of this procedure sheet will be kept with the gauge calibration curves with the gauge at all times.

1. The PORTAPROBE will be securely restrained in vehicles during transportation to prevent theft while the vehicle is unattended or damage from being thrown out during an accident. Metal clamps, chains, or seatbelts will be used to secure the units in open vehicles or vans with open interiors.

2. Keys to the permanent storage area will be made available only to the named users and the radiation safety officer.

3. All users will carry their film badges with them when using the PORTAPROBE or any other nuclear devices.

The badges will be stored away from the gauges when not in use and will be stored away from heat.

4. Radiation labels or placards will be removed from vehicles when the vehicles are not actually being used for transportation of nuclear devices to avoid confusion should an accident occur with the nuclear device not in the vehicle.

5. In the event of emergency involving possible damage to the radioactive source:

**Freeze site, stop any vehicles involved with contact with the gauge.*

**Restrict access to the accident area to 10 feet from the gauge, vehicle and vehicle tracks.*

**Call for assistance. Obtain a survey meter to determine if a "spill" occurred.*

**Call:*

R.S.O. Division of Administration, Arizona State Office, Phoenix, Arizona (602) 241-5519

Nearest Public Health Office: Day: (602) 255-4845, Night: 262-8011

Arizona Radiation Regulatory Agency, Suite #2, Tempe, Arizona

Civilian Defense: 2035 N. 52nd St., Phoenix, Arizona 85008

C.P.N. Factory 415-687-6472 (602) 273-1411

Other: _____

Submit this form as part of your license application and maintain a copy of this form with the gauge at all times for your reference.

Application for By-Product Material License

Item 15. Radiation Protection Program

Bureau of Land Management Scope of Operation and Protection Program to be utilized under this license consists of the following principles:

1. The Portaprobe Nuclear Soil Gauges will be used to monitor moisture content and densities in various construction materials. Users of the gauges shall be only Construction Inspectors and Engineers who have successfully completed the Training Course on "Radiation Safety and Use of Nuclear Soil Gauges" sponsored by Campbell Pacific Nuclear Corporation. General instructions "Nuclear Safety Procedures" (copy attached) will be available at all construction sites, etc., for ready reference.

A copy of the manufacturer's manual was given to each of the individual users at the "Radiation Safety and Use of Nuclear Soil Gauge" Training Course. As well, a bound copy of the manual accompanies each gauge in a compartment within the carrying case.

2. While the gauges are in field use, they will be the responsibility of the Construction Engineer in charge, and when not in operation, the gauges will be securely stored in the Field Lab Trailer. The Portaprobe (in case) will be chained and locked to a fixture and the lab trailer locked. Keys to the lab trailer will be available only to the named gauge users and the Radiation Safety Officer.

3. The Bureau of Land Management, USDI, personnel will not perform maintenance and repairs involving access to the source or source holder and/or dismantling of the shielding or shutter devices in the gauge. All repairs, maintenance, disposals, etc., of the gauges will be made by the manufacturer. We will conform to all requirements of Shipper's Certification for Radioactive Material. In the event of emergency involving possible damage to the radioactive source, we shall conform to the measures stipulated in paragraph five of the Nuclear Safety Procedures (copy attached).

4. The permanent storage for the gauges is located in a specially identified and secured part of the BLM warehouse at our Arizona State Office at 447 W. Watkins, Phoenix, Arizona. The gauges will be stored at this location when not in use on field construction projects.

5. Annual leak testing will be accomplished on each Portaprobe Gauge using a Leak Test Kit supplied by Radiation Detection Company. Leak test monitoring will be the responsibility of the Radiation Protection Officer.

6. Employee radiation monitoring will be accomplished by means of a dosimetry badge system supplied and interpreted by the supplier identified in Item 12B of the application.

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Attachment B
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Application for Product Material License

In response to several provisions of the application the following information is supplied, specifically:

Item 6 Individuals who will use or directly supervise the use of licensed material

Item 16 Formal training in radiation safety

Item 17 Experience of individuals in 6 and 7

NAME	TRAINING	EXPERIENCE
Martin H. Bonadurer	a. Nuclear Pacific (Portaprobe) Training (8 hours)	Troxler Probe (6 m) 9 years with Campbell Pacific Portaprobe
Robert L. Brown	a. Civil Defense Radiological Monitoring b. Nuclear Pacific (Portaprobe) Training (8 hours)	9 years with Campbell Pacific Portaprobe
George Cummings	a. Troxler Electronic Training (16 hours)	5 years with Campbell Pacific Portaprobe
Fred Flick	a. Troxler Electronic Training (8 Hours)	1 year with Campbell Pacific Portaprobe
Bob Jones	a. Troxler Electronic Training (16 hours)	5 years with Campbell Pacific Portaprobe
Joe Lowe	a. Troxler Electronic Training (16 hours)	5 years with Campbell Pacific Portaprobe
Jerry Satterlee	a. Troxler Electronic Training (16 hours)	5 years with Campbell Pacific Portaprobe
George Schuh	a. Troxler Electronic Training	5 Years with Campbell Pacific Portaprobe
Mack A. Snow	a. Nuclear Pacific (Portaprobe) (8 hours)	9 years with Campbell Pacific Portaprobe
Ira M. Thiessen	a. Nuclear Pacific (Portaprobe) Training (8 hours)	5 years with Campbell Pacific Portaprobe
Donald L. Widick	a. Troxler Electronic Training (16 hours)	9 years with Campbell Pacific Portaprobe

Attachment B
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Application for Product Material License

John L. Wilson

- a. Nuclear Pacific (Portaprobe) Training (8 hours) 9 years with Campbell Pacific Portaprobe
- b. Shelter Management (Utah State University)
- c. Radiological Monitor Training

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Attachment C
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Application for Product Material License

Item 5. Street Addresses where Licensed Material will be used.

Arizona Strip District Office
196 East Tabernacle
P.O. Box 250
St. George, UT 84770

Phoenix District Office
2015 W. Deer Valley Rd.
Phoenix, Arizona 85027

Kingman Resource Area Office
2475 Beverly Avenue
Kingman, Arizona 86401

Safford District Office
425 East 4th Street
Safford, Arizona 85546

Yuma District Office
3150 Winsor
P.O. Box 5680
Yuma, Arizona 85364

Havasu Resource Area Office
3189 Sweetwater
P. O. Box 685
Lake Havasu City, Arizona 86403

And temporary field locations.

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