NRC FORM 31	3 U.S.	NUCLEAR REG	ULATORY COMMISS	SION	APPROV	ED BY OMB: NO. 3150-0120	EXPIRES: 3/31/2012			
(3-2009) 10 CFR 30, 32, 33, 34, 35, 36, 39, and 40 APPLICATION FOR MATERIALS LICENSE						Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.				
INSTRUCTION	NS: SEE THE AI SEND TWO	PPROPRIATE LI COPIES OF THI	CENSE APPLICATIO	ON G	UIDE FOR	DETAILED INSTRUCTIONS FOR COMPL ON TO THE NRC OFFICE SPECIFIED BE	ETING APPLICATION. LOW.			
APPLICATION FOR	R DISTRIBUTION OF	EXEMPT PRODUCTS	S FILE APPLICATIONS WIT	H:	IF YOU AR	E LOCATED IN:				
OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555-0001					ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:					
ALL OTHER PERS	ONS FILE APPLICAT	IONS AS FOLLOWS:	:		U.S. NUCLEAR REGULATORY COMMISSION, REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352					
IF YOU ARE LOCA	TED IN:									
ALABAMA, CONNE KENTUCKY, MAINE NEW YORK, NORT CAROLINA, TENNE SEND APPLICATIO	ECTICUT, DELAWAR E, MARYLAND, MAS H CAROLINA, PENN ESSEE, VERMONT, 1 DNS TO:	E, DISTRICT OF COL SACHUSETTS, NEW SYLVANIA, PUERTO VIRGINIA, VIRGIN ISI	LUMBIA, FLORIDA, GEORG HAMPSHIRE, NEW JERSE RICO, RHODE ISLAND, SC LANDS, OR WEST VIRGINI/	BIA, Y, DUTH A,	ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:					
LICENSING AS DIVISION OF N U.S. NUCLEAR 475 ALLENDAL KING OF PRUS	SISTANCE TEAM JUCLEAR MATERIAL REGULATORY COM LE ROAD SSIA, PA 19406-1415	S SAFETY MISSION, REGION I			NUCLEAR MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION IV 612 E. LAMAR BOULEVARD, SUITE 400 ARLINGTON, TX 76011-4125					
PERSONS LOCATE MATERIAL IN STAT	ED IN AGREEMENT S TES SUBJECT TO U.	STATES SEND APPLI	ICATIONS TO THE U.S. NU ATORY COMMISSION JUR	CLEA ISDIC	R REGULATO	RY COMMISSION ONLY IF THEY WISH TO POSSESS	AND USE LICENSED			
1. THIS IS AN APPI	LICATION FOR (Che	ck appropriate item)	·		2. NAME A	ND MAILING ADDRESS OF APPLICANT (Include ZIP co	ide)			
A. NEV	WLICENSE				ABNA	Engineering, Inc.				
B. AMENDMENT TO LICENSE NUMBER					4140 Li	ndell Blvd.				
✓ C. RENEWAL OF LICENSE NUMBER 24-32415-01					St. Lou	is, MO 63108				
3. ADDRESS WHE	RE LICENSED MATE	RIAL WILL BE USED	OR POSSESSED		4. NAME O	FPERSON TO BE CONTACTED ABOUT THIS APPLICA	TION			
4140 Lindell	l Blvd.				Ravmo	nd E. Bailev				
St. Louis, M	O 63108				TELEPH					
						(314) 454-0222				
SUBMIT ITEMS 5 TH	HROUGH 11 ON 8-1/	2 X 11" PAPER. THE	TYPE AND SCOPE OF INF	ORMA	TION TO BE I	PROVIDED IS DESCRIBED IN THE LICENSE APPLICA	TION GUIDE.			
 RADIOACTIVE N a. Element and r which will be p 	ATERIAL mass number; b. chen possessed at any one	nical and/or physical fo time.	orm; and c. maiximum amour	nt	6. PURPOS	E(S) FOR WHICH LICENSED MATERIAL WILL BE USE	D.			
7. INDIVIDUAL(S) F TRAINING EXPE	RESPONSIBLE FOR F RIENCE.	RADIATION SAFETY	PROGRAM AND THEIR		8. TRAININ	G FOR INDIVIDUALS WORKING IN OR FREQUENTING	RESTRICTED AREAS.			
9. FACILITIES AND	EQUIPMENT.				10. RADIATION SAFETY PROGRAM.					
11. WASTE MANAC	GEMENT.				12. LICENSE FEES (See 10 CFR 170 and Section 170.31) FEE CATEGORY AMOUNT ENCLOSED \$					
13. CERTIFICATION UPON THE APPLIC	N. (Must be complete ANT.	d by applicant) THE /	APPLICANT UNDERSTAND	S THA	T ALL STATE	MENTS AND REPRESENTATIONS MADE IN THIS APP	LICATION ARE BINDING			
THE APPLICAN CONFORMITY V CORRECT TO T	THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTANED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.									
WARNING: 18 ANY DEPARTM	U.S.C. SECTION 100 ENT OR AGENCY OF	1 ACT OF JUNE 25, 1 THE UNITED STATE	948 62 STAT, 749 MAKES F ES AS TO ANY MATTER WI	T A CF THIN I	RIMINAL OFFI	ENSE TO MAKE A WILLFULLY FALSE STATEMENT OF TION.	R REPRESENTATION TO			
CERTIFYING OFFICER TYPED/PRINTED NAME AND TITLE Raymond E. Bailey, Radiation Safety Officer				SIGNATURE DATE DATE 06/13/2012						
			FOR	IRC	USE OI	NLY				
TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECI	KNUMBER	COMMENTS				
APPROVED BY		l	\$	DATE		RECEIVED JUN	1 9 2012			

٠

.

5. RADIOACTIVE MATERIAL

- A. Element and Mass Number
 - a.1 Cesium-137
 - a.2 Americium-241
 - a.3 Radium-226
- B. Chemical and/or physical form (for all sources listed in a.)

Sealed sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gauging device as specified in Item 9 of the license.

- C. Maximum amount which will be possessed at any one time
 - c.1 (Cesium-137) No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an agreement State. Total possession not to exceed a total of 80 millicuries.
 - c.2 (Americium-241) No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State. Total possession not to exceed a total of 400 millicuries.
 - c.3 (Radium-226) No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an agreement State. Total possession not to exceed a total of 18 millicuries.
- 6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED
 - A. Cesium-137 and Americium-241. To be used in Campbell-Pacific Nuclear Corporation Model MC Series portable gauges for measuring physical properties of materials.
 - B. Radium-226. To be used in Seaman Nuclear Corporation, Portable Moisture density Gauges Models C-200 and C-300.
- 7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.
 - A. The Radiation Safety Officer for this License if Raymond E. Bailey. Before obtaining licensed materials, the proposed RSO successfully completed one of the training courses described in Criteria in the section entitled "Individual(s) Responsible for Radiation Safety Program and Their Training and Experience –

Radiation Safety Officer" in NUREG-1556, Vol. 1, Rev. 1, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Portable Gauge Licenses," dated November 2001.

- 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RETRICTRED AREAS.
 - A. Before using licensed materials, authorized users will have successfully completed one of the training courses described in Criteria in the section entitled "Training for Individuals Working In or Frequenting Restricted Areas" in NUREG-1556, Vol. 1, Rev 1, dated November 2001.
- 9. FACILITIES AND EQUIPMENT.
 - A. Licensed material may be used or stored at the licensee's facilities located at 4140 Lindell Blvd, St. Louis, Missouri and may be used at temporary job sites anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.
- 10. RADIATION SAFETY PROGRAM.
 - A. See item numbers 12-22 of the attached Materials License Supplementary Sheet.
- 11. WASTE MANAGEMENT.
 - A. Licensed materials will be disposed of in accordance with NRC requirements by transfer to an authorized recipient. Appropriate records will be maintained.

NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

PAGE <u>1</u> OF <u>4</u> PAGES Amendment No. 02

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.

	In accordance with application dated September 28, 2009, 3. License number 24-32415-01 is amended in its entirety to read as follows:				
1. ABNA Engineering, Inc.					
2. 4140 Lindell Blvd	4. Expiration date August 31, 2012				
St. Louis, MO 63108	5. Docket No. 030-36087				
	Reference No.				
6. Byproduct, source, and/or 7. Chemical and/or physics special nuclear material	al form 8. Maximum amount that licensee may possess at any one time under this license				
 A. Cesium-137 A. Sealed sources in with NRC under with an Agreement incorporated in a gauging device a Item 9 of this licer B. Americium-241 B. Sealed sources in with NRC under 1 with an Agreement incorporated in a gauging device a Item 9 of this licer 	 A. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State. Total possession not to exceed a total of 80 millicuries. B. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State. Total possession not to exceed a total of 80 millicuries. B. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State. Total possession not to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State. Total possession not to exceed a total of 400 millicuries. 				
C. Radium-226 C. Sealed sources either with NRC 32.210 or with ar State and incorp compatible gaug specified in Item license.	registered under 10 CFR h Agreement oorated in a jing device as 9 of this C. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State. Total possession not to exceed a total of 18 millicuries.				

9. Authorized use

A. and B. To be used in Campbell-Pacific Nuclear Corporation Model MC Series portable gauges for measuring physical properties of materials.

NR	C FC	ORM 374A U.S. NUCLEAR REGULATORY COMMISSION	PAGE 2 of 4 PAGES						
			License Number 24-32415-01						
		MATERIALS LICENSE SUPPLEMENTARY SHEET	Docket or Reference Number 030-36087						
			Amendment No. 02						
	C.	. To be used in Seaman Nuclear Corporation measuring physical properties of materials	Models C-200 and C-300 portable gauges for						
		CONDITION	S						
10.	Lid Mi U.	censed material may be used or stored at the licensee's issouri and may be used at temporary job sites of the licensee's . S. Nuclear Regulatory Commission maintains jurisdict	s facilities located at 4140 Lindell Blvd, St. Louis, censee anywhere in the United States where the ion for regulating the use of licensed material.						
11.	T۲	he Radiation Safety Officer (RSO) for this license is Ray	/mond E. Bailey.						
12.	Lie	censed material shall only be used by, or under the sup dividuals who have received the training described in th	ervision and in the physical presence of, e application dated August 1, 2002.						
13.	 A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by NRC under 10 CFR 32.210 or by an Agreement State. 								
	B. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by NRC under 10 CFR 32.210 or by an Agreement State prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.								
	С.	Sealed sources need not be tested if they are in stor are removed from storage for use or transferred to a the required leak test interval, they shall be tested be stored for a period of more than 10 years without bei	age and are not being used. However, when they nother person, and have not been tested within fore use or transfer. No sealed source shall be ng tested for leakage and/or contamination.						
	D.	The leak test shall be capable of detecting the prese radioactive material on the test sample. If the test re becquerels) or more of removable contamination, a Regulatory Commission in accordance with 10 CFR immediately from service and decontaminated, repai Commission regulations.	nce of 0.005 microcurie (185 becquerels) of veals the presence of 0.005 microcurie (185 report shall be filed with the U. S. Nuclear 30.50(c)(2), and the source shall be removed red, or disposed of in accordance with						
	E.	Tests for leakage and/or contamination shall be performed to commission or an Agreement State to perform such such that the state test samples but not perform the analysis persons specifically licensed by the Commission or an	rmed by persons specifically licensed by the services. In addition, the licensee is authorized to analysis of leak samples must be performed by a Agreement State to perform such services.						
	F.	Records of leak tests results shall be kept in units years.	of microcuries and shall be maintained for 3						
14.	Se de	ealed sources or source rods containing licensed mater tached from source rods or gauges by the licensee, ex-	al shall not be opened or sources removed or cept as specifically authorized.						

	annin fa fail an					8				
NR	C FOR	RM 374A	U.S. NU	CLEAR REGULATO	RY COMMISSION		PAGE	3	of	4 PAGES
						License Number 24-32415-01				
		MAT	ERIALS	LICENSE ARY SHEET		Docket or Reference Num 030-36087	ber			
*********	***************					Amendment No. 02	2			
15.	Exc fror wol	cept for maintaini m NRC before m uld alter the desc ued either by the	ing labelir aking any pription or Commiss	ng as required changes in the specifications sion pursuant to	by 10 CFR Par e sealed sourc as indicated in o 10 CFR 32.2	t 20 or 71, the licens e, device, or source- the respective Certi 10 or by an Agreeme	ee shall c device co ficates of ent State.	obtai ombi Reg	n aui natio istrai	thorization n that tion
16.	The acc	e licensee shall o count for all source	onduct a ces and/o	physical inven r devices recei	tory every 6 mo ved and posse	onths, or at other inte ssed under the licen	ervals app se.	rove	ed by	NRC, to
17.	The Par	e licensee is auth t 71, "Packaging	orized to and Trar	transport licen isportation of F	sed material or Radioactive Ma	nly in accordance wi terial."	th the prov	visio	ns of	10 CFR
18.	in a ma esta	addition to the po terial to quantitie ablishing decom	ssession s below th missioning	limits in Item 8 ne minimum lin g financial assu	, the licensee s hit specified in urance.	hall further restrict t 10 CFR 30.35(d), 40	ne posses .36 (b) ar	nd 7	n of li 0.25	censed (d) for
19.	Eac acc loci bar unc	ch portable gauge idental removal of ked when in trans riers to secure ler the control a	e shall ha of the sea sport. A r portable and cons	ve a lock or ou led source from ninimum of two gauges from t tant surveillar	ter locked coni n its shielded p vo independer unauthorized nce of the lice	ainer designed to prosition. The gauge nt physical controls removal whenever nsee are required.	event una or its con that form the porta	autho taine m ta ble	orize er mu ngib gau(d or ist be ie je is not
20.	Any the Cor	cleaning, mainte gauge shall be p nmission or an A	enance, c performed greemen	r repair of the only by the ma t State to perfo	gauges that rec anufacturer or (rm such servic	quires detaching the other persons specif es.	source or ically licer	r sou nsed	urce by t	rod from
21.	A.	If the licensee u licensee shall u and other appro- below the surfa shall implement measurements.	uses unsh se surfac opriate pro ce. If it is procedu	ielded sealed s e casing that e ocedures to rec not feasible to res to ensure th	sources extend xtends from the luce the proba- extend the cased h nat the cased h	led more than 3 feet e lowest depth to 12 bility of the source o sing 12 inches above hole is free of obstrue	below the inches at r probe be e the surfaction befo	e sur bove acon ace, re m	face the ning the l lakin	, the surface odged icensee g
	B.	If a sealed sour becomes appar licensee shall n CFR 30.50(b)(2 obtaining the Co	ce or a pr ent that e otify the L) and (c). ommissio	obe containing fforts to recove J. S. Nuclear R The licensee n's prior writter	sealed source or the sealed so egulatory Com shall not abance consent.	s becomes lodged to burce or probe may mission and submit don the sealed source	below the not be suc the report the or prob	surf ces req e wi	ace a sful, uirec thout	and it the I by 10
							774 - 144 2 - 144	4		
				ing State						

NRC	EORM	374A	U.S. NUCLE	AR REGULATOR	COMMISSION	1		PAGE	4 0	f 4 PAGES
						License Numbe 24-32415-0	r)1			
			MATERIALS LIC	CENSE SHEET		Docket or Refer 030-36087	rence Number	*****		
						Amendmen	nt No. 02			
22.	Excer accor any e stater restric	pt as spe dance v nclosure ments, n ctive tha	ecifically provided o vith the statements es, listed below. The presentations, and n the regulations.	otherwise in th representatione Nuclear Re d procedures	his license, th ons, and proc egulatory Cor in the license	ne licensee si cedures cont mmission's re se's applicati	hall conduc ained in th egulations on and cor	ct its pro e docur shall go respon	ogram ments, overn u dence	in including nless the are more
	A. A	Applicati	on dated August 1,	2002; and						
	B. F	acsimile	e dated February 9	, 2006.		ř				
	, in the second s		10 5 ³ ⁵				:			
									. . .	
			18.2%					, nin Line	n ni National National National	;
		· · · ·					10			
	, , ,	•	і. Жіра							*
		,	а I.	·						1 50 - 100,
			-7 × × × × × × × × × × × × × × × × × × ×							
	6		S. S				, , 14			4 ^{8 - 2^{1 − 2} − 2.}
	». 		ster op							and a second
	* 94			1. Na 1			31. 21			3 . 7
				and the second			чт. к. С			
				5. 1974 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1977 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1977 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1977 - 19755 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975						
		Ì		Ant of the		15	а Ц ,			5
		ž, '		**************************************			e di Le qui dui			∱}
		te nationalis te constructions te constructions				1. m.			, ys:	
		201 2 1		.* **		د می میرد میر مد			н.,	
		f P	Notifier All	5.4.5% 		2		P ⁴	Ţ	
			e e e e e e e e e e e e e e e e e e e		د د مع					
			*		FUR THE	U.S. NUCLE/	AR REGUL	ATOR		INISSION
		DFC	2 4 2009	· • • • • •		her X.	In.	~ .	* * *	
Date)	میں سنو میر 			By Tov	e L. Simmon	S	7-2-	·····	*****
					Mat	erials Licens	ing Branch	ł		

RAYMOND BAILEY RADIATION SAFETY OFFICER ABNA ENGINEERING, INC. 4140 LINDELL BLVD. SAINT LOUIS, MO 63108



MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352