NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

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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, 37, 39, 40, 70 and 71, 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.

	Licen	see In accordance with letter dated	4. Expiration Date: February 28, 2025	
1.	U.S. Silica Company	EAR REGU		
2.	200 N. LaSalle St. Ste. 2100 Chicago, IL 60601	3. License number: 12-35194-011s amended in its entirety to read as follows:	5. Docket No.: 030-38792 Reference No.: 19-31437-01/ 030-38437 47-09375-07/ 030-14788	
6.	Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form 8. Maximum amount that lice may possess at any one ti- under this license	psee 9. Authorized use	
Α.	Cesium-137	A. Sealed Sources (Texas Nuclear, A. 500 millicuries per sour Model 850233; U.S. Nuclear, Model 373, 378)	A. For use in Texas Nuclear, Model 5080 Series source holders to perform density measurements for controlling industrial processes.	
B.	Cesium-137	B. Sealed Sources (QSA Global, Inc., Model CDC.700, CDC.711M)	 B. For use in Thermo Process Instruments, L.P. (formerly TN Technologies), Model 5202 source holders to perform density measurements for controlling industrial processes. 	
C.	Cesium-137	C. Sealed Sources (Thermo Fisher C. 100 millicuries per sour Scientific, Model 57157C) and 100 millicuries total	C. For use in Thermo Process Instruments, L.P. (formerly Thermo Measure Tech), Model 5190 source holders to perform density measurements for controlling industrial processes.	

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	MATERIALS LICENSE SUPPLEMENTARY SHEET	License Number 12-35194-01 Amendment No. 4	Docket or Reference 030-38792	Number 19-31437-01/ 030-38437 47-09375-07/ 030-14788
6.	Byproduct, source, 7. Chemical and and/or special nuclear material	i/or physical form 8. Maximun may poss	amount that licensee 9 ess at any one time license	9. Authorized use
D.	Cesium-137 D. Sealed Sour Scientific, M	rces (Thermo Fisher D. 100 mill odel 57157O) and 100	curies per source D milliouries total	 For use in Thermo Fisher Scientific (formerly Kay-Ray/Sensall), Model 7062BP source holders to perform density measurements for controlling industrial processes.
10 11 12 13	 Licensed material may be used or stored A. 2496 Hancock Rd., Berkeley Springs, B. 819 E. Osage St., Pacific, Missouri, 6 Licensed material shall be used by, or un The Radiation Safety Officer (RSO) for th A. Sealed sources and detector cells shathe certificate of registration issued by absence of a registration certificate, months, or at such other intervals as B. In the absence of a certificate from a registration issued by the U.S. Nucleis sealed source received from another 	CONDITIONS Ionly at the licensee's facilities locate West Virginia, 25411 3069 Inder the supervision of Rebecca M. H his license is Rebecca M. Kuykendal hall be tested for leakage and/or conf by the U.S. Nuclear Regulatory Comp sealed sources shall be tested for lea specified. I transferor indicating that a leak test ar Regulatory Commission under 10 person shall not be put into use unt	amination at intervals a hission under 10 CFR akage and/or contamin CFR 32.210 or by an A I tested and the test re	neimer, or Garry Pogue, Jr. not to exceed the intervals specified in 32.210 or by an Agreement State. In the nation at intervals not to exceed 6 the intervals specified in the certificate of Agreement State, prior to the transfer, a esults received.

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	MATERIALS LICENSE SUPPLEMENTARY SHEET	License Number 12-35194-01 Amendment No. 4	Docket or Reference Number 030-38792 19-31437-01/ 030-38437 47-09375-07/ 030-14788
14.	 C. Sealed sources need not be tested if or transferred to another person, and transfer. No sealed source shall be standing to the sample. If the test reveals the present filed with the U.S. Nuclear Regulatory immediately from service and decontained at the samples of leak test samples and/or a Commission or an Agreement State of the analysis. F. Records of leak test results shall be the sample of leak test results shall be the account for all sealed sources and/or dyears from the date of each inventory, and date of the inventory. 	they are in storage and are not being us have not been tested within the require cored for a period of more than 10 years ecting the presence of 185 becquerels (0 ce of 185 becquerels (0.005 microcuries Commission in accordance with 10 CF aminated, repaired, or disposed of in ac contamination shall be performed by per o perform such services. The licensee is cept in units of becquerels (microcuries) entory every 6 months, or at other interview levices received and possessed under to d shall include the radionuclides, quanti	 sed. However, when they are removed from storage for use d leak test interval, they shall be tested before use or without being tested for leakage and/or contamination. 0.006 microcuries) of radioactive material on the test s) or more of removable contamination, a report shall be R 30.50(c)(2), and the source shall be removed cordance with Commission regulations. rsons specifically licensed by the U.S. Nuclear Regulatory s authorized to collect leak test samples but not perform and shall be maintained for 3 years. vals approved by the U.S. Nuclear Regulatory Commission, the license. Records of inventories shall be maintained for 3 ities, manufacturer's name and model numbers, and the
15.	Sealed sources containing licensed mate specifically authorized.	rial shall not be opened or sources remo	oved from source holders by the licensee, except as
16.	A. Each gauge shall be tested for the pr months or at such longer intervals as pursuant to 10 CFR 32.210 or the eq	oper operation of the on-off mechanism specified in the certificate of registration uivalent regulations of an Agreement St	(shutter) and indicator, if any, at intervals not to exceed 6 n issued by the U.S. Nuclear Regulatory Commission ate.

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dment No. 4	030-	14788
sm (shutter) and indicator test, the echanism in a locked position. The maintained for 3 years from the da i the licensee: Installation, initial ra- i the sealed sources, and non-rou- shall be performed only by person- such services. nitted by the certificate of registrat nditions. with written instructions provided ompatible with the Conditions of N- y the U.S. Nuclear Regulatory Co- ked in the off position, if applicable ions (e.g., the package was not da n to fit in the proposed location. , activation, or operation of the ga perational by a person specifically	e requirement does not e gauges exempted fro ate of each test. adjation surveys, reloca tine maintenance or re- ns specifically licensed tion issued by the U.S. by the manufacturer. formal Use and Limitati mmission or an Agreer e, or the source must b amaged). uge. The source must licensed by the U.S. N	t apply to gauges that are stored, om this periodic test shall be tested ation, removal from service, pair of components related to the I by the U.S. Nuclear Regulatory Nuclear Regulatory Commission or ions and/or Other Considerations of ment State. be otherwise fully shielded; remain fully shielded, and the gauge luclear Regulatory Commission or an
	Number 194-01 dment No. 4 sm (shutter) and indicator test, the echanism in a locked position. The naintained for 3 years from the da the licensee: Installation, initial ra- the sealed sources, and non-rou- shall be performed only by perso- ouch services. hitted by the certificate of registrat- ditions with written instructions provided ompatible with the Conditions of No- y the U.S. Nuclear Regulatory Co- ked in the off position, if applicable ons (e.g., the package was not date in to fit in the proposed location. activation, or operation of the ga- perational by a person specifically	Number 194-01 Docket or Reference Number 030-38792 19-3 19-3 19-3 dment No. 4 030-38792 19-3 030-38792 030-38792 19-3 0030-38792 030-38792 19-3 0030-38792 030-38792 19-3 0030-38792 19-3 0030-38792 19-3 0030-38792 19-3 0030-38792 19-3 0005 19-3 0005 19-3 0005 19-3 0005 19-3 0005 19-3 0005 19-3 0005 19-3 0005 19-3 0005 19-3 005 19-3 005

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	SUPPLEMENTARY SHEET	Amendment No. 4	030-14	100
19.	A. The licensee may maintain, repair, or licensed material and that do not res increased radiation levels in accessib	r replace device components that are no ult in the potential for any portion of the b ple areas.	t related to the radiologica body to come into contact	al safety of the device containing with the primary beam or result in
	B. The licensee may not maintain, repaid drive mechanism, on-off mechanism device, except as provided otherwise	ir, or replace any of the following device (shutter), shutter control, shielding, or ar by specific condition of this license.	components: the sealed s ny other component relate	ource, the source holder, source d to the radiological safety of the
20.	Prior to initial use and after installation, respectively, the licensee shall assure that a and below the gauge with the shutter open Nuclear Regulatory Commission or an A	elocation, dismantling, alignment, or any a radiological survey is performed to deta an. This survey shall be performed only is greement State.	other activity involving the ermine radiation levels in a by persons authorized to p	e source or removal of the accessible areas around, above, perform such services by the U.S.
21.	The licensee shall operate each device of limits such that the shielding and shutter	ontaining licensed material within the m mechanism of the source holder are not	enufacturers specified ten compromised.	nperature and environmental
22.	The licensee shall assure that the shutte periods when a portion of an individual's appropriate, its "lock-out" procedures wh	r mechanism of each device containing I body may be subject to the direct radiati enever a new device is obtained to incom	icensed material is locked to beam. The licensee sh rporate the device manufa	l in the closed position during nall review and modify, as acturer's recommendations.
23.	Except for maintaining labeling as require Regulatory Commission before making a description or specifications as indicated Commission pursuant to 10 CFR 32.210	ed by 10 CFR Part 20, or Part 71, the lic any changes in the sealed source, device in the respective certificate of registration or by an Agreement State.	ensee shall obtain authori e, or source-device combir on issued either by the U.S	zation from the U.S. Nuclear nation that would alter the S. Nuclear Regulatory

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SUPPLEMENTARY SHEET		Amendment No. 4		030-14788
 SUPPLEMENTARY SHEET 24. Except as specifically provided otherwork representations, and procedures contathose procedures that are required to regulations shall govern unless the starestrictive than the regulations. A. Application dated August 29, 2014 B. Letter dated December 5, 2014 (MC) C. Letter dated September 29, 2015 D. Letter dated December 11, 2015 (E) E. Letter dated August 14, 2019 (ML) 		vise in this license, the licensee shall of ained in the documents, including any be submitted in accordance with the atements, representations, and proces (ML14259A364) (ML15275A225) ML15345A037) 19227A063)	conduct its program in enclosures, listed be regulations. The U.S dures in the licensee'	n accordance with the statements, elow. This license condition applies only to . Nuclear Regulatory Commission's 's application and correspondence are mo

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

By: Jara a. Foster

Sara A. Forster Region 3

Date: August 22, 2019