

From: [Alley, David](#)
To: [Lowman, Don](#)
Subject: FW: 2019 Report of Exempt Transfers; XL Technologies, Inc.; License No. 12-35143-01E
Date: Wednesday, March 04, 2020 2:34:46 PM
Attachments: [Cal 2019 NCR.xlsx](#)
[2019 Annual Report LicenceNo 12-35143-01E.docx](#)

This one looks like yours.

Dave

From: Gonzalez, Hipo <Hipolito.Gonzalez@nrc.gov>
Sent: Wednesday, March 04, 2020 1:39 PM
To: Alley, David <David.Alley@nrc.gov>
Subject: FW: 2019 Report of Exempt Transfers; XL Technologies, Inc.; License No. 12-35143-01E

From: Cathy Wei <cathy.wei@xlti.com>
Sent: Wednesday, March 04, 2020 1:34 PM
To: Gonzalez, Hipo <Hipolito.Gonzalez@nrc.gov>
Cc: 'Miller, Debra' <Debra.Miller@nrc.gov>; 'Sue Xue' <sxue@xlti.com>; 'Zack Li' <zackli@xlti.com>
Subject: [External_Sender] 2019 Report of Exempt Transfers; XL Technologies, Inc.; License No. 12-35143-01E

Dear Mr. Hipolito,

Attached are the annual report and the formula used for the calculations. Please let me know if you have questions or need additional information. Sorry for the delay.

Thank you,
Brgds
Cathy Wei
XL Technologies, Inc.
630-435-5469 (T), 888-850-1866 (Fax)
www.xlti.com
Email: cathy.wei@xlti.com

Material Transfer Report for 2019

January 15, 2020

TO:

Director, Office of Federal and State Materials and Environmental Management Programs
ATTN: Document Control Desk/Exempt Distribution
U.S. Nuclear Regulatory Commission,
Washington, DC 20555-0001

Licensee:

XL Technologies, Inc
1501 Norman Drive
Darien, IL 60561

License Number:

12-35143-01E

Docket No.:

040-38370

Description of the materials transferred for use under §40.13(c):

§40.13(c)(1)(iii), welding rods (2% Thoriated tungsten electrodes)

Description of the products

The products are tungsten rods doped with <4% ThO₂ (the actual content is between 1.8% and 2% ThO₂, averaging 1.9%).
The rods are 7" long with various diameters of 0.04", 1/16", 3/32", 1/8", 5/32", 3/16", and 1/4".

Products transferred during the license period in 2019 (01/01/2019 to 12/31/2019)

Part number	Dimensions		Transferred during license period			
	Diameter	Length	Quantity of Welding Rods (Box)	Quantity of Welding Rods (pc)	Unit Weight (g)	Radioactivity (mCi)
WT040x7	0.04"	7"	0	0	2.55	0
WT116x7	1/16	7"	2520	25200	6.5	0.297591393
WT332x7	3/32	7"	18,120	181200	15	4.872214254
WT018x7	1/8	7"	5880	58800	26.2	2.798885206
WT532x7	5/32	7"	240	2400	40.9	0.17833682
WT316x7	3/16	7"	0	0		0
WT014x7	1/4	7"	60	600	104.8	0.114240213
Total						8.261267887

*Each box contains 10 pieces of welding rods

**Based on actual average content of 1.9%ThO₂, with a unit radioactivity value of 67.29 Bq per gram of thoriated tungsten rods

Name: Zack Li

Signature: *Zack Li*

Title: President

Date: 1/15/2020

Welding Rod Radioactivity Calculations and Assumptions
 XL Technologies
 01/15/2020

Radioactivity of Th-232:	Bq/g	mCi	
	4030	0.00010881	
Th-232 % in ThO2	88%		
Content of Th-232 per gram of WT20:	1.8% ThO2	2.0% ThO2	Average 1.9%ThO2
% of Th-232 in ThO2 per gram of WT20:	0.015818182	0.017575758	0.01669697
Radioactivity per gram of WT20 in Bq:	63.74727273	70.83030303	67.28878788
Radioactivity per gram of WT20 in mCi:	1.72118E-06	1.91242E-06	1.8168E-06

Part number	Dimensions		Transferred during license period		
	Diameter	Length	Quantity of Welding Rods (Box)	Quantity of Welding Rods (pc)	Unit Weight (g)
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WT116x7	1/16	7"	2520	25200	6.5
WT332x7	3/32	7"	18,120	181200	15
WT018x7	1/8	7"	5880	58800	26.2
WT532x7	5/32	7"	240	2400	40.9
WT316x7	3/16	7"	0	0	
WT014x7	1/4	7"	60	600	104.8
Total					

Radioactivity (mCi)
0
0.297591393
4.872214254
2.798885206
0.17833682
0
0.114240213
8.261267887