Arribas-Colon, Maria

From: Arribas-Colon, Maria
Sent: Friday, February 13, 2015 11:12 AM
To: England, Tony
Cc: Herrera, Tomas
Subject: Corrected Pages for NR-1375-S-101-S
Attachments: Corrected Pages 1 & 4, February 13, 2015 (NR-1375-S-101-S).pdf

Good Morning Mr. England,

The U.S. Nuclear Regulatory Commission has corrected Pages 1 & 4 of Babcock and Wilcox Nuclear Energy Registration Certificate NR-1375-S-101-S. The following errors/typos were found in Certificate NR-1375-S-101-S dated October 7, 2013.

1. In Page 1, the Custom Source section should have originally been marked as "No", instead of "Yes,"
2. In Page 1, the Maxim Activity of Model BWSS1 should have originally been 1.**08** Ci, instead of 1.**80** Ci, and
3. In Page 4, the header of Radiation Profiles table should have originally been 5, **30** and **100** cm, instead of 5, **10** and **30** cm.

To correct these errors/typos, Pages 1 & 4 of Registration Certificate NR-1375-S-101-S were corrected to reflect: (1) the Custom Source section marked as No, (2) 1.08 Ci as the Maximum Activity for sealed source Model BWSS1, and (3) the correct distances (5, 30, and 100 cm) in header of the Radiation Profiles table.

Attached are the corrected Pages 1 & 4, please replace the pages in your current Registration Certificate with the attached corrected pages dated February 13, 2015.

Do not hesitate to contact me if you have any questions.

Thank you,

MARÍA DEL MAR ARRIBAS-COLÓN, M.S.
PROJECT MANAGER, NMSS/MSTR/MSLB
U.S. NUCLEAR REGULATORY COMMISSION

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Registry of Radioactive Sealed Sources and Devices
Safety Evaluation of Sealed Source
(CORRECTED PAGES 1 & 4 - FEBRUARY 13, 2015)

NO.: NR-1375-S-101-S DATE: October 7, 2013 PAGE 1 of 6

SOURCE TYPE: Neutron Sources

MODEL:	BWSS1 BWSR1
DISTRIBUTOR:	Babcock and Wilcox Nuclear Energy 2016 Mt. Athos Road Lynchburg, VA 24504
MANUFACTURERS:	Babcock and Wilcox Nuclear Energy 2016 Mt. Athos Road Lynchburg, VA 24504 QSA Global, Inc. 40 North Avenue Burlington, MA 01803

ISOTOPE:	MAXIMUM ACTIVITY:
Californium-252	1.**08** Ci (40.0 GBq), Model BWSS1
Californium-252	0.81 Ci (30.0 GBq), Model BWSR1

LEAK TEST FREQUENCY:	6 Months, Model BWSS1 6 Months, Model BWSR1 (when not in use)
PRINCIPAL USE:	(H) General Neutron, Model BWSS1 (T) Other, Model BWSR1
CUSTOM SOURCE:	_____ Yes **X** No

SOURCE TYPE: Neutron Sources

EXTERNAL RADIATION LEVELS (Cont.):

by a safety factor of 2 for the Model BWSS1 sealed source and by 1.5 for the Model BWSR1 sealed source. Based on this method, the maximum external radiation are as follows in the table below.

Source Model	5 cm	30 cm	100 cm
BWSS1	2284 R/hr (22.84 Sv/hr)	64 R/hr (0.64 Sv/hr)	6 R/hr (0.06 Sv/hr)
BWSR1	1713 R/hr (17.13 Sv/hr)	48 R/hr (0.48 Sv/hr)	4.5 R/hr (0.045 Sv/hr)

QUALITY ASSURANCE AND CONTROL:

The Model BWSS1 and BWSR1 sealed sources are manufactured by Babcock and Wilcox Nuclear Energy and by QSA Global, Inc.

Sources manufactured by Babcock and Wilcox Nuclear Energy are fabricated in accordance with its quality policy manual which complies with the requirements of ASME NQA-1 and 10 CFR 50, Appendix B. A copy of the program is on file with NRC. The QC program contains provisions for document and records control, corrective and preventive action, training, instrument calibration, software control, quality and management reviews, procurement control, contract review, and project planning. Qualification and independent internal audits are performed annually.

The manufacturer conducts the leak tests in accordance with ISO 9978:1992(E). The sources should be visually inspected prior to use, wipe tested for external contaminations levels, and emission rates will be measured using NIST traceable standards.

Sources manufactured by QSA Global, Inc. are fabricated in accordance with Babcock and Wilcox Nuclear Energy standards and