

June 16, 2015

Ms. Amy Johnson  
Licensing and Performance  
Assessment Manager  
Urenco, USA  
P.O. Box 1789  
Eunice, NM 88231

SUBJECT: APPROVAL OF LOUISIANA ENERGY SERVICES EXCEPTION REQUEST TO ALLOW THE USE OF STATION WEIGH SCALES AS MONITORED SUPPORT EQUIPMENT WITHIN THE BOUNDARY FOR FUTURE ITEMS RELIED ON FOR SAFETY WITHOUT PRIOR NRC APPROVAL

Dear Ms. Johnson

On April 22, 2015, Louisiana Energy Services (LES) dba Urenco USA (UUSA), transmitted a request for an exception to License Condition (LC) 20 (AgencyWide Document Access and Management System (ADAMS) Accession Number ML15118A542). This request would allow the use of station weigh scales as approved Monitored Support Equipment (MSE)<sup>1</sup> and to reference of these station weigh scales within the boundary of future "Items Relied On For Safety" (IROFS) without prior approval of the U.S. Nuclear Regulatory Commission (NRC).

LC 20 of SNM-2010 states that there are no IROFS specified as using software, firmware, microcode, programmable logic controllers (PLC), and/or any digital device, including hardware devices which implement data communication protocols (such as fieldbus devices and Local Area Network controllers), etc. Should the design of any IROFS be changed to include any of the aforementioned features, LC 20 requires the licensee to obtain Commission approval prior to implementing the change(s). LC 20 also requires the licensee's design change(s) to adhere to the accepted best practices in software and hardware engineering, including software Quality Assurance (QA) controls as discussed in the QA Program Description (QAPD) throughout the development process and be in accordance with the applicable guidance of specific industry standards and regulatory guides as cited in LC 20.

In our previous Safety Evaluation Reports (SERs) we approved this exception for specific IROFS (ADAMS ML101530562 and ML102170279). In those approvals the staff noted that each station weighing system consists of four load cells, each of which determines the weight of the cylinder using strain gauges. When weight is placed on the frame, the strain gauge converts the deformation (strain) to an electrical signal. Each load cell sends an electrical signal to a junction box where the signals are electrically combined in a summing junction to provide a single output signal. This junction box is a very simple device consisting of five terminal blocks, one for each load cell, and one for the output signal. Incoming and outgoing signals from the

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<sup>1</sup> Definitions for MSE and related terms were submitted May 2, 2010, in a License Amendment Request (LAR-10-04) (ML101250326) for exceptions to the same LC for IROFS38 and C22.

junction box cannot be manipulated. The summed signal is then sent to the SD2100 weighing amplifier.

The SD2100 receives the summed signal from the junction box, amplifies it, and converts it to a digital signal so that it can be displayed in an appropriate weight format. The amplified signal from the SD2100 is then sent to the SD2200 CAN-bus display mounted on the outside of the station. In addition, the amplified signal from the SD2100 is sent to the RS485 bus, which relays the signal to the Plant Control System. The SD2100 does have the capability of executing user defined code and thus, is considered a PLC; however, these features are not used in this application. Entering code into the SD2100 Weighing Amplifier would require a change in configuration of the device as currently installed. As stated in the QAPD management measures (in this case locked cabinets with management controls for access keys), as well as plant procedures, are in place to control changes to the configuration of this device. The staff's approval of the QAPD provides reasonable assurance that QA Level 2AC support equipment will fulfill their intended function commensurate with worker reliance on the equipment.

In the past SERs referenced above, the staff found that it acceptable to use of this component within the boundary of several specific IROFS. Within those evaluations the staff found this component does not constitute a reduction in safety commitments, its use has no impact on the IROFS safety function, and it continues to meets 10 CFR 70.62 and ASME NQA-1 Basic Requirement. This request extends those approvals allowing the Weigh Scales to be included within the boundary of any future administrative IROFS without prior NRC approval.

In consideration of this request, the two previous SERs referenced above were studied. We also considered the operational history of these components, both here in the United States as well as in Urenco facilities in Europe. Lastly, we took into consideration your commitments to keep the appropriate administrative controls in force to ensure no unauthorized modifications to the station weigh scales. All of these assurances provide a foundation that demonstrates to the staff that an adequate safety case has been made to allow an exception to LC 20 for the use of this specific component in future administrative IROFS without prior NRC approval. Thus, the exception is approved, and LC-20 has been modified as follows:

Exception to License Condition 20 is granted for IROFS using the Station Weigh Scale digital processing equipment described in correspondence dated May 23, 2010, July 26, 2010, and April 22, 2015, as long as this equipment has been qualified in accordance with the UUSA Quality Assurance Program Description.

Amendment 65 to the license containing the revised exception to LC 20 is enclosed.

The staff notes that this approval does not give you any relief from the requirements to follow the change evaluation process of as required by 10 CFR 70.72(c) and LC 30.

An environmental assessment for this action is not required, since this action is categorically excluded under Title 10 of the *Code of Federal Regulations* (10 CFR) Section 51.22(c)(11).

A. Johnson

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Work performed under Technical Assignment Control (TAC) No. L34323 is complete and the TAC is closed. If you have any questions regarding this letter, please contact Mr. Michael Raddatz n of my staff at (301) 415-7391, or via e-mail at [Michael.Raddatz@nrc.gov](mailto:Michael.Raddatz@nrc.gov).

In accordance with 10 CFR 2.390 of the U.S. Nuclear Regulatory Commission's "Agency Rules of Practice and Procedure," a copy of this letter and the enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agency wide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Thomas A. Grice, Chief  
Enrichment and Conversion Branch  
Division of Fuel Cycle Safety, Safeguards,  
and Environmental Review  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: 70-3103  
License No.: SNM-2010

Enclosure:  
License Amendment 65

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**/RA/**

Thomas A. Grice, Chief  
Enrichment and Conversion Branch  
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Docket No.: 70-3103  
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License Amendment 65

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**ADAMS Accession No.: ML15166A104**

**Package No.: ML15166A128**

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