



**Steve Twilley**  
Director, North America

**Roxar Flow Measurement**  
3300 Walnut Bend Lane  
Houston, TX 77042

T 1 (713) 918 0912  
M 1 (832) 687 8051

Steve.Twilley@Emerson.com

November 30, 2011

Mr. Roy J. Caniano, Director  
Division of Nuclear Materials Safety  
U.S. Nuclear Regulatory Commission  
Region IV  
612 East Lamar Boulevard, Suite 400  
Arlington, Texas 76011-4125

Re: Roxar Flow Measurement, Inc., License No. 42-27765-01  
Predecisional Enforcement Conference Corrective Actions

Dear Mr. Caniano:

First, on behalf of Roxar Flow Measurement, Inc. ("Roxar") and its management, let me thank you for the opportunity to address you and your staff at the November 15, 2011 Predecisional Enforcement Conference ("PEC"). We greatly appreciated the chance to discuss with you the steps that Roxar is taking to fully comply with the letter and spirit of Nuclear Regulatory Commission ("NRC") regulations relating to the possession, use and distribution of our flowmeters.

Towards the conclusion of the PEC, you asked that we submit to the NRC a letter describing in more detail the corrective actions that we described to you on November 15. We are pleased to do so. As described in our presentation, Roxar has undertaken four categories of corrective actions. Each is described in turn.

#### Ground-Up Determination of Regulatory Compliance and Best Practices

As we discussed at the PEC, among the first activities that Roxar took after receiving the telephone call from Mr. Michael Vasquez on July 15 and well before the receipt of your August 5, 2011 letter transmitting the Inspection and Investigation Reports, was to retain highly experienced nuclear regulatory counsel (Pillsbury Winthrop Shaw Pittman LLP) and a highly experienced technical/health physics consultant (Carol Berger, Integrated Environmental Management ("IEM")). Working with Pillsbury and IEM, the Roxar team (none of whom had been involved with the company during the 2002-2007 period), did a thorough, ground-up review of Roxar's activities from a regulatory perspective to determine how Roxar's activities should have been structured in the past and how they should be





structured at the present time. Included in this review was the retrieval and reconstruction of available customer transaction records to ascertain the precise nature of the transactions during the 2002-2007 period, as well as survey of available regulatory, training and certification documentation. The review determined that during the 2002-2007 period, meters were transferred to customers absent a Roxar distribution license, on the assumption that Roxar could remain responsible for the meters from a regulatory perspective. Because of this approach, at least some of Roxar's customers from this period had not made regulatory filings which would have been appropriate for a general licensee. Resolution of this issue is addressed in subsequent sections of this letter. The review also determined that Roxar's internal procedures and practices were not consistent with best industry practices. Resolution of this issue is addressed in this letter's Internal Corrective Actions section.

#### Customer Interactions

After identifying the appropriate contact at each of Roxar's customers who had purchased a flowmeter during the 2002-2007 period, Roxar held individual, one-on-one discussions and meetings with each customer. At these meetings, Roxar set out the regulatory history of the transactions, the regulatory structure which (in hindsight) should have been established, and Roxar's determination as to the necessary regulatory steps forward for both Roxar and the customers, including necessary steps for customers with flowmeters in the Gulf of Mexico to properly register with the NRC as general licensees. In each case, Roxar provided to the customer contact a regulatory compliance package to ensure that each licensee understood its obligations as an NRC general licensee. The package included a copy of NRC Form 664, "Registration for General Licensees," Roxar's "Notice to Owners of Roxar Flowmeters," and the procedure for safe handling of the particular source holder model purchased by the customer. Roxar also offered to work with each customer to help them assure that customer's compliance with NRC regulations. We plan to include in our plans a periodic follow-up with each of our customers as to their regulatory compliance. Finally, after reviewing the requirements of 10 CFR 32.51a and the analogous Texas regulation at your suggestion, we will send supplementary notification letters to our customers to make sure that they have all the information called for by those regulations.

#### Internal Corrective Actions

Internally, Roxar has taken a number of steps to establish best practices. Working with Ms. Berger at IEM and Pillsbury attorneys, Roxar has prepared a comprehensive Radiation Protection Program Plan ("Plan"). That Plan, currently in draft form, is undergoing review within Roxar and will then be incorporated into the Roxar corporate document system. Although the Plan is still in draft, its table of contents is attached to give you a sense of its scope. Roxar also plans to undertake, through IEM, a prospective dose assessment to determine the likely annual exposure of a Roxar authorized user during the course of his/her duties. Roxar is also taking steps to streamline and unify its document control and retention systems, with the aim of avoid the difficulties encountered in reconstructing the documentary record for flowmeter sales during the 2002-2007 period. Finally, Roxar is improving its process for auditing its compliance with radiation protection program commitments and requirements. IEM (replacing Roxar's prior radiological consultant) will audit the program two out of every three years. In the third year, consistent with the approach to periodic audits taken by Roxar's parent Emerson Electric, Roxar will use a different third party auditor.





As a result of the ground-up regulatory review described above, Roxar identified discrepancies with the placarding required on its source holders. For the meters sold in the 2002-2007 period, the placards required for generally licensed meters had not been affixed (as the assumption at the time was that they were under Roxar's specific license). In addition, seven meters had placards that referenced an obsolete manual. Roxar has discussed the placarding issue with each of the customers involved. In addition, Roxar has informed both Texas regulators and the NRC of the issue and has proposed that correct placards be affixed in the event that the meters are pulled to the surface from their current subsea location, and that the meters would not be brought to the surface solely to replace the placards. Both Texas and NRC regulators were satisfied with this resolution. Roxar reminded each of its customers of their obligation to notify Roxar before bringing a meter to the surface, and will periodically remind them of this obligation going forward.

Interaction with TDSHS

Roxar currently distributes the flowmeters pursuant to an Agreement State distribution license from the Texas Department of State Health Services ("TDSHS") Radiation Safety Licensing Branch. The sources are approved by the TDSHS pursuant to the Registry of Radioactive Sealed Sources and Devices. As part of its comprehensive regulatory review, Roxar is preparing to apply to the TDSHS for amended device approvals for the Model RFM-SH-7950 and 7951 source holders used in most of the flowmeters that Roxar has sold since 2002. Roxar is also planning to apply to the TDSHS for an amended specific license for distribution that is more streamlined (and therefore easier for both Roxar and TDSHS to administer) in that it deletes provisions that are out-of-date or superseded.

We hope that this letter provides you a full picture of the comprehensive steps that Roxar has undertaken in the past four months to assure its regulatory compliance and best practices. Please do not hesitate to contact me should you have any questions or would like further information.

Sincerely,

A handwritten signature in black ink that reads "Steve Twilley".

Steve Twilley  
Director – North America  
Roxar Flow Measurement, Inc.

Enclosure

cc. w/ enclosure      Ray Fleming  
                                 Jason Razo

