



Directorate of Nuclear Cycle  
and Facilities Regulation

4.02.03  
E-Docs#3917360

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April 18, 2012

Mr. William E. Lynch Jr.  
President  
Shield Source Incorporated  
R. R. # 5 Municipal Airport  
PETERBOROUGH ON K9J 6X6

**Subject: Shield Source Incorporated – Stack Emission Data Discrepancy**

Dear Mr. Lynch:

I am writing to acknowledge the receipt of your interim report on the discrepancy related to stack emission data. As you are aware, CNSC staff are reviewing the report and have already sent a preliminary set of comments on April 13<sup>th</sup>.

As previously discussed, CNSC approval will be required to re-start tritium fill operations. Given that the interim report confirms that SSI has been under-reporting emission data, the following is the list of requirements SSI must meet prior to requesting any such approval:

- Submission of the final report by April 25, 2012.
- A complete root cause analysis report by a qualified third party. The root cause analysis must investigate both the technical and organizational factors behind the errors, and its scope must be satisfactory to CNSC staff.
- A comprehensive corrective action plan to address the findings of the root cause analysis. CNSC staff expect that the key corrective actions will be implemented prior to the restart of fill operations.
- Details on the revised monitoring program and how SSI will meet its licence limits for its discharges in the future.
- Validation of existing environmental monitoring data through the development of a conceptual model and comparisons of measured versus expected data.
- Development of techniques and measures that allow for tritium mass balance calculations.
- Revision of all affected previous annual and environmental reports to reflect corrected data, and re-submission to CNSC for review and made available to general public.

CNSC staff are planning to inspect SSI during the last week of April. Ms. Nadia Petseva will be in contact with your staff to provide further details.

Please do not hesitate to contact me if you require any further clarification.

Sincerely,



B. R. Ravishankar  
Director  
Nuclear Processing Facilities Division

c.c.: L. McMurray (SSI)  
L. Newton (SSI)