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April 19, 2012

Ms Louise Levert
Secretariat
Canadian Nuclear Safety Commission
280 Slater Street
P.O. Box 1046, Station B
Ottawa, Ontario K1P 5S9

Dear Ms Levert:

Re: Application by Shield Source Inc. ("SSI") to Renew its Class IB Nuclear Substance Processing Facility Operating Licence for a 10-year term at its Peterborough Municipal Airport Facility – Supplementary Submissions on behalf of Safe and Green Energy ("SAGE")

I am the solicitor for SAGE in respect of the above matter. This letter contains supplementary submissions to our letter to you dated April 2, 2012 prompted by the recent receipt of certain new preliminary stack emission data and reporting information from the applicant SSI that raises major concerns about the advisability of proceeding with the currently scheduled hearing on May 2, 2012, let alone granting to SSI a 10-year licence renewal, or even a five-year licence renewal (the latter as recommended by Commission staff).

SUMMARY OF REQUEST

SAGE requests that: (1) SSI be directed to cease operations immediately; (2) the SSI application be rejected outright without prejudice to the company re-applying when the problems recently discovered in its information submitted in support of its licence renewal application have been corrected or, in the alternative, (3) the May 2, 2012 be adjourned under Rule 14 or, in the further alternative, (4) the May 2, 2012 hearing be converted to a two-day hearing the second day of which will be adjourned under Rule 14 until all information from the applicant, and evaluation by Commission staff, have been provided to the intervenors and a reasonable opportunity for public comment thereon has been given.

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THE NEW INFORMATION AND ITS IMPLICATIONS

In a series of reports and memos released by SSI on or about April 11, 2012, it appears that in late March 2012, the company advised Commission staff that one of its consultants was reporting "increased stack emissions" of tritium from the SSI Peterborough Airport facility that caused the company to suspend its tritium fill operations (on March 28th) and all production (March 29th to April 2nd). Limited operations were resumed on April 3rd (sign assembly and one tritium fill machine) to allow testing of the machine for ongoing investigations into the problem.

An SSI investigation report, dated April 11, 2012, shows that daily releases from the tritium fill machines may be as high as 112 Curies:

> "Calculations show that there is a possibility of a total of approximately 112.4 Ci of tritium that may be lost from the tritium fill machines in a regular production day" (Shield Source Incorporated, April 11, 2012, Investigation Report: Stack Emissions are higher than expected based on Investigation 0002, page 2).

An SSI preliminary stack emissions report, dated April 11, 2012, shows that annual releases of tritium exceed 1000 trillion Becquerels. Recalculated annual values for 2010 were 1337.58 TBq (not the 273.68 TBq reported by SSI) and for 2011 were 1261.18 TBq (not the 141.91 TBq reported by SSI). The recalculated values are roughly five to nine times higher than the values previously reported by SSI for these years. The report further indicates that more detailed data will be included in the company's final report on April 25, 2012 (Shield Source Incorporated, April 11, 2012, Stack Emissions Preliminary Report, Table 4: Total Tritium Reported and Recalculated, page 3).

Perhaps, most importantly, the SSI licence application itself shows that the release limit for total tritium is 500 TBq/year (Shield Source Incorporated, Request for a Licensing Decision Regarding Licence Renewal of Nuclear Substance Processing Facility Operating Licence No. NSPFOL-12.00/2012, March 2, 2012, Table TCMD03: Air Emissions released from the facility, page 26). Therefore, the recalculated values indicate that for 2010 and 2011 SSI tritium emissions were more than double the annual release limits set by the Commission.

Quite apart from the great magnitude of the releases themselves, and their exceedance of Commission release limits, the fact of the matter is that the recalculated values indicate that at least some of the environmental release information the company provided as part of its application for renewal in September and October 2011, and upon which Commission staff would have made their recommendations, and intervenors would have based their submissions, may not be accurate. Accordingly, if the new information released last week, and the information to be released on April 25th, is the true basis for evaluating the SSI renewal application, and not the information that the company has previously relied upon in support of its application, then it runs afoul of the Act, the regulations,[1] and the Commission's rules to be considering the SSI application as early as May 2, 2012. We set out the particulars of this argument below.

[1] See, for example, *General Nuclear Safety and Control Regulations*, SOR/2000-202, s. 3; *Class I Nuclear Facilities Regulations*, SOR/2000-204, ss. 3, 6.

GROUNDS FOR REQUEST

The rationale for the above request includes the following:

- the applicable Commission rules governing the minimum period between notice of hearing and the hearing itself have been effectively departed from significantly to the detriment of those who may oppose the SSI application as a result of the eleventh hour receipt of the recalculated values;

- the applicable Commission rules governing the minimum period between the date of hearing and the date for Commission staff to file documentary information and written submissions have been effectively departed from significantly to the detriment of those who may oppose the SSI application as a result of the eleventh hour receipt of the recalculated values;

- the variance authority available to the Commission under the rules that could be invoked to allow the May 2nd hearing to proceed should not be invoked where certain key underlying information in support of the application may be faulty and can only be corrected at the eleventh hour, if at all, by last minute filing of recalculated values because this would violate "considerations of fairness" to those who may oppose the SSI application;

- the SSI application, and the hearing with respect thereto, are premature in light of obligations imposed on SSI under the Act and regulations to file accurate information in support of its application; and

- tritium processing at the SSI facility should not continue under such circumstances of uncertainty, particularly when further operations create the potential for violations of release limits or licence conditions.

These points are discussed more fully below.

Period Between Notice of Hearing and the Hearing Itself

In general, the SSI application is governed by section 40(5) of the *Nuclear Safety and Control Act* ("*NSCA*") and the applicable Commission *Rules* promulgated thereunder. Section 40(5) of the Act requires the Commission to hold a public hearing with respect to the proposed exercise by the Commission of the power under section 24 to amend a licence. The Commission staff report that recommends granting SSI a five-year licence renewal also refers to the fact that the SSI renewal application would have been made in accordance with the requirements of section 24.[2]

[2] Canadian Nuclear Safety Commission, Application by Shield Source Incorporated for Renewal of their Class 1B Nuclear Substance Processing Facility Operating Licence, (March 31, 2012) at page 7.

Part 2 of the Commission *Rules* apply to a public hearing held by the Commission under section 40(5). Rule 17 of the *Rules* requires the Commission to give "at least" 60-day notice to the public before the start of a public hearing. If accurate information has not been included in the SSI application on a material matter until mid-to-late April 2012 regarding the true state of affairs respecting emissions from company operations, then the Rule 17 60-day notice requirement has not been met with respect to the SSI application and a May 2, 2012 hearing date is premature. This defect also has the effect of nullifying, from a practical standpoint, the ability of a person who has filed documentary material under Rule 18(1), from filing supplementary material under Rule 21(3) of the *Rules*. The overall impact of this departure from the Rule 17 requirement would appear to substantially prejudice potential intervenors, and would appear to benefit SSI.

Period Between the Date for Commission Staff to File Documentary Information and Written Submissions and the Date of Hearing

Rule 18(2) of the *Rules* requires that Commission staff must file documentary information and written submissions that it will present at the hearing "at least" 30 days before the start of the hearing. That requirement has not been met with respect to the SSI application because the Commission staff report went out on the SSI application on or about March 1, 2012, six weeks before receipt of the mid-April 2012 information from the company about potential problems in its emissions data. Furthermore, the company has itself stated that it will only be providing a final report on this matter on April 25, 2012. Given the potential seriousness of the emissions information problem, the Commission should expect Commission staff to review and report on the implications of this new data. Any such report from Commission staff could not be received by the Commission or hearing participants "at least" 30 days before the start of the May 2, 2012 hearing.

For the Commission to ignore or waive the Rule 18(2) requirement in light of this eleventh hour series of events in order to allow the hearing to proceed on May 2nd, would have the effect of nullifying, from a practical standpoint, the ability of a potential intervenor to take into account and file written submissions with the Commission on the Commission staff material. It also deprives the Commission of the benefit of intervenor comments on the Commission staff material. The overall impact of this departure from the Rule 18(2) requirement would appear to substantially prejudice potential intervenors, and would appear to benefit SSI.

Variance Authority cannot be invoked if not consistent with "considerations of fairness"

Rule 3 of the Commission *Rules*, grants the Commission the authority to vary its rules in the following terms:

> "The Commission or, where applicable, a designated officer may vary or supplement any of these Rules, in order to ensure that a proceeding be dealt with as informally and expeditiously as the circumstances and the considerations of fairness permit."

In the respectful submission of SAGE, if Rule 3 applies to Part 2 of the Commission's *Rules*, it surely does not justify the cumulative impact of all the departures from those rules that would have to be made in respect of the SSI application as a result of the recalculated values and related

matters summarized in this letter. "Fairness" dictates that the Commission hear an application only when accurate information from the applicant is before it and has been reviewed by Commission staff and commented upon by intervenors in accordance with the timeframes set out in the *Rules*. Administrative law principles also contemplate that a hearing not be held where the applicant's information in support changes materially at the eleventh hour. For the Commission to invoke Rule 3 to vary the requirements so as so allow the hearing to proceed on May 2nd would appear to substantially prejudice potential intervenors, and would appear to benefit SSI.

Prematurity of Application and Hearing in Light of Requirements of Act and Regulations

As noted above, the Act requires that before the Commission issue or amend a licence under s. 24(2) that it hold a public hearing under s. 40(5). The information required from an applicant for an operating licence that forms the basis for Commission consideration of such an application at a hearing is set out in several regulations promulgated pursuant to the *NSCA*. These information requirements include, for example:

- a description and the results of any test, analysis or calculation performed to substantiate the information included in the application;[3]
- the effects on the environment and health and safety of persons that may result from the operation of the nuclear facility;[4]
- the proposed maximum quantities and concentrations, and the anticipated volume and flow rate of releases of nuclear substances and hazardous substances into the environment;[5] and
- proposed measures to control releases of nuclear substances and hazardous substances into the environment.[6]

The eleventh hour revelations respecting recalculated values that show that SSI has been exceeding its total tritium annual release limits for two years, throw into complete disarray all environmental release and related information submitted by the company in support of its application. Had the true state of affairs been known intervenors might have drafted different submissions and other members of the public might have decided to intervene in the proceedings. In the circumstances, administrative law principles dictate that the Commission issue a new notice of hearing following the receipt of, Commission staff evaluation with respect to, and public comment on, accurate company release information.

Cessation of Operations

Prudence dictates that given the circumstances, the company should not be operating the facility at all, and full investigations into the emissions data problems should be undertaken immediately.

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[3] *General Nuclear Safety and Control Regulations*, SOR/2000-202, s. 3(i).
[4] *Class I Nuclear Facilities Regulations*, SOR/2000-204, s. 6(h).
[5] *Class I Nuclear Facilities Regulations*, SOR/2000-204, s. 6(i).
[6] *Class I Nuclear Facilities Regulations*, SOR/2000-204, s. 6(j).

REQUEST

In light of the foregoing, SAGE respectfully repeats its requests that the Commission:

1. direct SSI to cease operations immediately; and

2. reject the SSI application for a licence outright without prejudice to the company re-applying when the problems recently discovered in its information have been corrected; or

3. in the alternative, adjourn the May 2, 2012 hearing under Rule 14 and re-schedule to a new date following proper notice and receipt of all new SSI information, Commission staff evaluation, and public comment thereon; or

4. in the further alternative, convert the SSI one-day hearing on May 2nd to a two-day hearing the second day of which to remain adjourned pursuant to Rule 14 until all information from the applicant, and evaluation by Commission staff, have been provided to the intervenors and a reasonable opportunity for public comment thereon has been given.

All of which is respectfully submitted,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION

Joseph F. Castrilli
Counsel

c.c. Safe and Green Energy