



SRB TECHNOLOGIES (CANADA) INC.

320-140 Boundary Road
Pembroke, Ontario, Canada, K8A 6W5
Tel.: (613) 732-0055
Fax: (613) 732-0056
E-Mail: sales@betalight.com
Web: www.betalight.com

Mr. R. Rashapov
Project Officer, Nuclear Processing Facilities Division
Canadian Nuclear Safety Commission
P.O. Box 1046, Station B
Ottawa, Ontario
Canada
K1P 5S9

Subject: Full Report – Event Defined as a Dangerous Occurrence, as per Section 35 (c) of the PTNSR

Dear Mr. Rashapov,

As required by Section 38 of the *Packaging and Transport of Nuclear Substances Regulations* (PTNSR), please accept our full report of the event that was reported to SRBT on November 21, 2017, where a package of aircraft signs containing tritium was noted as lost in transit between Pembroke, ON and Germany.

A preliminary report was made by telephone to the CNSC Duty Officer, as well as to your attention [1] on the day SRBT became aware of the occurrence. SRBT has also been in contact with a CNSC Transport Officer [2] since the preliminary report was filed.

In line with our Public Information Program, details of the event were posted to the SRBT website on December 3, 2017. The full report will also be posted to our website within the next few days.

We are pleased to note that on Wednesday, December 6, 2017, SRBT was notified by the primary contact point in the supply chain that the lost package had been located in a warehouse in Munich, Germany. The customer has confirmed that the package is currently being processed through German customs.

Should you have any questions or concerns on this report, please do not hesitate to contact me at any time.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Levesque'. The signature is fluid and cursive, with a large initial 'S' and a long, sweeping underline.

Stephane Levesque
President
SRB Technologies (Canada) Inc.

cc: K. Murthy, CNSC
F. Dagenais, CNSC
R. Fitzpatrick, SRBT
J. MacDonald, SRBT
S. Pleau, SRBT

Reference

- [1] Email from J. MacDonald (SRBT) to R. Rashapov (CNSC), *Preliminary Report – Section 35 (c) of PTNSR – Lost Package of Aircraft Tritium Safety Signs*, dated November 21, 2017.
- [2] Sequence of emails between J. MacDonald (SRBT) and F. Dagenais (CNSC), *Report of Lost or Missing Radioactive Material During Transport – Missing package of aviation signs*, dated November 27, 2017.



SRB TECHNOLOGIES (CANADA) INC.

320-140 Boundary Road
Pembroke, Ontario, Canada, K8A 6W5

Tel.: (613) 732-0055

Fax: (613) 732-0056

E-Mail: sales@betalight.com

Web: www.betalight.com

FULL REPORT

Event Defined as “Dangerous Occurrence”, as per Section 35 (c) of
Packaging and Transport of Nuclear Substances Regulations

Author:

A handwritten signature in black ink, appearing to read 'Jamie MacDonald', written over a horizontal line.

Jamie MacDonald
Manager of Health Physics & Regulatory Affairs

Accepted:

A handwritten signature in black ink, appearing to read 'Stephane Levesque', written over a horizontal line.

Stephane Levesque, President

Accepted:

A handwritten signature in black ink, appearing to read 'Ross Fitzpatrick', written over a horizontal line.

Ross Fitzpatrick, Vice-President

Date Submitted: December 12, 2017

Submitted To: R. Rashapov, Project Officer - CNSC

SRBT Full Report

Event Defined as “Dangerous Occurrence”, as per Section 35 (c) of Packaging and Transport of Radioactive Materials Regulations

NOTE: This report is intended to fulfill the requirements associated with Clause 38 of the Packaging and Transport of Nuclear Substances Regulations (PTNSR), in relation to the event where SRBT was made aware of the loss of a package of tritium-powered self-luminous aircraft signs in transit between our facility in Pembroke, ON, and the consignee in Germany.

The information presented below reflects the fact that the lost package has been reported as located by UPS-SCS, on Wednesday, December 6, 2017.

The package was reported as located in Munich, Germany, in a warehouse associated with Lufthansa German Airlines. The customer has confirmed that the items are currently being processed through German customs.

(a) *The date, time and location of the failure to comply or of the dangerous occurrence.*

SRBT was informed by UPS-SCS that the package in question could not be located on Monday, November 20, 2017. UPS-SCS declared the package to be lost on Tuesday, November 21, 2017.

The preliminary report was filed by SRBT on the afternoon of Tuesday, November 21, 2017, both through the CNSC Duty Officer and the SRBT Project Officer.

(b) *The names of the persons involved.*

The following list of individuals were involved in the investigation since the event was first recognized:

- Shane Pleau, Import/Export Manager, SRBT
- Isabelle Decelles, Air Customer Service Agent, UPS-SCS
- Pam Mitchell, Air Customer Service Agent, UPS-SCS
- Multiple contacts with Air Cargo Inc.
- Heike Kopping, Supply Chain Management, RUAG Aerospace Services

(c) *The details of the packaging and packages.*

The package (dimensions 18"x10"x9", weight 8lbs) contains 26 aircraft safety signs, totalling approximately 5.3 TBq of tritium within the devices.

The shipment is classed as UN2911, Radioactive Material, Excepted Package, Articles. The signs were contained in packages that meet the requirements of an 'Excepted Package' as defined in the IAEA Safety Standard No. SSR-6, *Regulations for the Safe Transport of Radioactive Material*, and were labelled as such.

The aircraft signs were in the process of being exported under licence EL-A1-25313.0/2018 to RUAG Aerospace Services GmbH in Germany. The shipment Incoterm was EXW; the consignee arranged for the handling of this shipment via UPS SCS.

(d) *The probable cause of the situation.*

In rare occurrences, packages in transit with carriers are known to be lost due to handling or administrative errors; this would be the apparent probable cause of the situation.

It was noted by UPS-SCS early in the investigation that the package may have been damaged, and subsequently rejected for carriage on the flight leaving Montreal destined for Germany; however, as the package is now being processed through customs Germany, this may not have been the case.

(e) *The effects on the environment, the health and safety of persons, and national or international security that have resulted or may result.*

The information that is on hand to this point strongly indicates that at no time has there any effect on the environment, nor the health and safety of persons during the time the shipment was lost.

The items that were missing are tritium aircraft signs, which are certified radiation devices that are sold as consumer products, and are designed to present zero radiological risk.

Any potential effect on national or international security would have been extremely limited by the nature of these items.

(f) *The doses of radiation that any person has received or is likely to have received.*

Based upon the most current information at hand, SRBT concludes that there has likely been no dose of radiation received by any person as a result of this event.

(g) *The actions taken to remedy the failure to comply or the dangerous occurrence and to prevent its recurrence.*

SRBT made a concerted effort to communicate with all available parties along the supply chain between Pembroke and Munich.

The Import/Export Manager made several phone calls to the key contact points throughout the past 21 days, including:

- Phone calls to UPS-SCS on November 28th and 30th.
- Phone calls to Air Cargo Inc. on November 30th and December 1st and 4th.
- Sent photos of the package to Air Cargo Inc. on December 4th.

Information was not easily obtained, and in general, sparse and non-specific until the news that the package had been located in Munich.

On December 6, 2017, UPS-SCS informed SRBT that the package had been located in Munich, Germany in a warehouse associated with Lufthansa German Airlines.

On December 12, 2017, the customer has confirmed that the items being imported are being processed through German customs.

The shipment was arranged under Incoterm 'Ex Works' by our customer in Germany, meaning that the customer took full responsibility for the transit arrangements for the shipment after leaving the SRBT facility.

The UPS-SCS supply chain between Canada and Germany is not one that SRBT has used extensively in the past.

Going forth, SRBT will strongly recommend the use of an alternate service provider with which SRBT has experience and confidence, should future customers request the export of our products through these agents.



Jamie MacDonald
Manager of Health Physics and Regulatory Affairs

DEC 12, 2017

Date