



CMD 21-M49

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Event Initial Report

Rapport initial d'événement

Mississauga Metals and Alloys Inc.

Mississauga Metals and Alloys
Bankruptcy

Mississauga Metals and Alloys Inc.

Faillite de Mississauga Metals and
Alloys Inc.

Commission Meeting

Réunion de la Commission

October 5, 2021

Le 5 octobre 2021

EVENT INITIAL REPORT (EIR)

E-DOCS# 6635208

EIR: Bankruptcy of Mississauga Metals and Alloys	
Prepared by: DNCFR-NPFD	
Licensee: Mississauga Metals & Alloys (MM&A)	Location: Brantford, ON
Date Event was Discovered: 2021-08-20	Have Regulatory Reporting Requirements been met? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Proactive Disclosure: Licensee: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> CNSC: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Overview	
Reporting Criteria: General Nuclear Safety and Control Regulations 29 (1)(j)(ix) - the making of a liquidation, bankruptcy, insolvency, reorganization or like order in respect of the licensee under provincial or foreign legislation 29 (1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it: (j) the occurrence of any of the following events: (ix) the making of a liquidation, bankruptcy, insolvency, reorganization or like order in respect of the licensee under provincial or foreign legislation, or	
Description: On July 26, 2021, the CNSC received a Notice of Intention under the <i>Bankruptcy and Insolvency Act</i> from the appointed Trustee (Richter Advisory Group Inc.) indicating MM&A's intent to restructure within a 30 day time period, ending on August 19, 2021. This triggered the need for an event report under the <i>General Nuclear Safety and Control Regulations</i> , however, MM&A retained control of the site and its assets during this time period. Discussions were held with relevant parties (i.e., Trustee, key creditors, MM&A) during this time period to better understand the situation and next steps. On August 17, a CNSC inspector visited the site to confirm that the nuclear substances stored on site remained secure and safe. Subsequently, on August 18, 2021, CNSC was informed by the Trustee that a resolution to MM&A's financial situation was unlikely and that upon the expiry of the 30 day stay of proceedings, MM&A would automatically be deemed bankrupt under the <i>Bankruptcy and Insolvency Act</i> . This was realized at 12:01 AM on August 20, 2021. As such, MM&A has been deemed bankrupt and thus no longer has control over its assets or the site. The bankruptcy has precluded MM&A's ability to provide for the protection of health, safety and the environment, the maintenance of security and compliance with international obligations. Specifically, an inventory of radioactive waste consisting of contaminated acid, metals, filter cake, etc. remains on site with no clear ownership. These materials contain small concentrations of low enriched uranium and are subject to nuclear material accountancy and safeguards. The waste is stored in 18 locked and weather-tight intermodal containers, which are stored outdoors. Further details are provided in the attached memo.	
Impact of the Event	
On People: How many workers have been (or may be) affected? <u>All employees of MM&A</u> How many members of the public have been (or may be) affected by the event? <u>None (0)</u>	
How were they affected? No impact to employees health and safety related to the nuclear substances stored on site, however, loss of employment with MM&A	

EVENT INITIAL REPORT (EIR)

E-DOCS# 6635208

EIR: Bankruptcy of Mississauga Metals and Alloys	
On the Environment: None	
<p>Other Implications: CNSC is a creditor in the bankruptcy with MM&A owing approximately \$233,000 in licensing fees to the CNSC.</p> <p>In light of the bankruptcy, the site will likely need to be decommissioned and the nuclear substances disposed of. The Financial Guarantee in the amount of \$200,000 is insufficient for these activities and thus other options will need to be explored.</p> <p>Further details are provided in the attached memo.</p>	
Licensee Actions	
<p>Taken or in Progress: None as MM&A ceased to exist once declared bankrupt on August 20, 2021</p> <p>Planned: None.</p>	
CNSC Actions	
<p>Taken or in Progress: The following actions were taken by the CNSC as a response to the bankruptcy event:</p> <ul style="list-style-type: none"> On August 20, 2021, a CNSC site inspector (Mississauga Regional Office) visited the site to apply lock out tags on the containers containing nuclear substances and to do a visual inspection of the containers and the site to ensure the continued safety and security of the nuclear substances Periodic site visits have continued by CNSC inspectors. Discussions with the Bankruptcy Trustee (Richter Advisory Group Inc.) and key creditors (Bank of Nova Scotia, Business Development Bank of Canada) to determine parties roles and responsibilities and their next steps. Verification of current export licences against activities with Canada Border Services Agency (CBSA) Notification to key authorities including the local law enforcement, emergency response, Office of the Fire Marshall of Ontario etc. <p>Planned: The following is a list of planned actions:</p> <ul style="list-style-type: none"> Continue to ensure that the nuclear substances remain secure and safe. Explore options with all parties regarding decommissioning and removal of the nuclear substances. Request that the Commission revoke MM&A's waste nuclear substance licence and its export licences. CNSC staff are evaluating possible regulatory actions at the designated officer (DO) level, which could include an order, which will result in a review by the Commission. <p>Further details are provided in the attached memo.</p> <p>Additional reporting to the Commission Members anticipated:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, provide method of reporting: MM&A is mentioned in the Nuclear Substances Regulatory Oversight Report (RoR) and CNSC staff will be able to provide any further updates at the Commission Meeting later in 2021 when the RoR will be presented. In addition, additional information will be provided to the Commission when CNSC staff request that the Commission revoke MM&A's licences under the NSCA.</p>	
Name and Title	Signature
<p>Kavita Murthy Director General, Directorate of Nuclear Cycle and Facilities Regulation</p>	<div style="display: flex; align-items: center;"> <div style="font-size: 8px; color: #808080;"> Digitally signed by Murthy, Kavita DN: c=CA, o=GC, ou=CNSC-CCSN, cn="Murthy, Kavita" Reason: I am approving this document Location: your signing location here Date: 2021-09-28 13:24:13 FoUo: PhantomPDF Version: 9.7.1 </div> </div> <hr style="border: 0; border-top: 1px solid black; margin-top: 5px;"/> <div style="display: flex; justify-content: space-between; width: 100%;"> Name Date </div>

MEMORANDUM

NOTE DE SERVICE

To Marc Leblanc,
Commission Secretary

A

From Kavita Murthy, DG, DNCFR

De


Digitally signed by Murthy, Kavita
DN: C=CA, O=GC, OU=CNSC-CCSN, CN="Murthy,
Kavita"
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Security Classification – Classification de
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UNCLASSIFIED

Our File – Notre référence

2.02

Your File – Votre référence

e-Doc 6645015 (Word)

Date

September 28,
2021

Tel. No. – N° de tél.

(613) 222-1703

Subject Event Initial Report – Bankruptcy of Mississauga Metals and Alloys Inc.
Objet

Introduction

This memorandum supplements the Event Initial Report (EIR) provided to the Commission on the bankruptcy of Mississauga Metals and Alloys Inc. (MM&A).

On July 26, 2021, the CNSC received a Notice of Intention [1] under the *Bankruptcy and Insolvency Act* from the appointed Trustee, Richter Advisory Group Inc., (the Trustee), indicating MM&A's intent to restructure within a 30 day time period ending August 19, 2021. Subsequently, on August 18, 2021, CNSC was informed by the Trustee that a resolution to MM&A's financial situation was unlikely and that upon the expiry of the 30 day stay of proceedings, MM&A would automatically be deemed bankrupt under the *Bankruptcy and Insolvency Act*. MM&A was declared bankrupt at 12:01 AM on August 20, 2021 [2]. MM&A has since ceased to exist and has had no control over the assets or the site since that date.

This triggered an event report under

- the *General Nuclear Safety and Control Regulations* 29 (1)(j)(ix) - the making of a liquidation, bankruptcy, insolvency, reorganization or like order in respect of the licensee under provincial or foreign legislation:
 - 29 (1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it;
 - (j) the occurrence of any of the following events:
 - (ix) the making of a liquidation, bankruptcy, insolvency, reorganization or like order in respect of the licensee under provincial or foreign legislation, or

CNSC has since been involved with the Trustee and key creditors through discussions to better understand the situation and next steps. CNSC's priority has remained to protect the health and safety of the public and the environment, and ensure the nuclear substances stored on the MM&A site are secure and remain subject to safeguards. To this end, CNSC inspectors are visiting the site periodically to monitor the site and ensure that the nuclear substances remain safe and secure.

Background

MM&A was a metal recycling facility located in Brantford, Ontario. The parent company was established in 1978 and operated in Brampton, Ontario. In 2007, all of the activities were relocated from Brampton to its current location at 71, Middleton Street in Brantford, Ontario. The primary business of the company was scrap metal recycling, specialising in scrap metal generated in the nuclear industry. The most common form of contaminated scrap metal received and processed by MM&A was zirconium tubes, which are a component of nuclear fuel bundles used in reactors. The metals were processed to remove the contamination and where possible, the metals were recycled. The decontamination process resulted in the accumulation of an inventory of metals and acids contaminated with natural and low enriched uranium. The current waste inventory was accumulated prior to 2007, from shipments of uranium-contaminated metals from nuclear industry companies located in Canada and internationally. MM&A has not received any shipments containing contaminated metals from domestic or international sources, since 2007.

MM&A has had a waste nuclear substance licence (WNSL) to store this waste material at the Brantford, Ontario site since 2007. In addition, MM&A had five export licences with the CNSC at the time of bankruptcy, with four licences still active as of October 1, 2021. These licences were issued by CNSC Designated Officers (DO) pursuant to paragraph 37(2)(c) of the *Nuclear Safety and Control Act* (NSCA). MM&A has not performed metal decontamination since 2007, following an order issued by a CNSC DO. Since then, its focus, other than non-nuclear commercial activities, has been on the safe storage and development of a plan to remove the contaminated waste from the site.

On February 3, 2017, a fire broke out at MM&A, which resulted in the destruction of the main building, and brought their commercial operations to a halt. There were no radioactive metals or waste in the building at the time of the fire. The contaminated waste is stored outdoors on the MM&A property, in 18 locked intermodal containers and these were not impacted by the fire. This event was reported to the Commission in an EIR [3, 4]. The fire had a major impact on MM&A's ability to pay its licensing fees to the CNSC and to take action to reduce its inventory of contaminated waste. As of October 2021, MM&A owes approximately \$233,000 in licensing fees to the CNSC. In November 2021, CNSC staff provided an update to the Commission on the licensee performance [5].

The Commission has granted MM&A exemptions from the requirement in the Cost Recovery Fees Regulations (CRFR) on two occasions, in 2019 and 2021 [6, 7]. In each instance, the Commission reviewed the circumstances and, under powers granted to it under Section 7 of the NSCA, issued an exemption to MM&A from the application of paragraph 24(2)(c) of the NSCA and Part 2 of the CRFR in respect of the requirement to be in good financial standing at the time of licensing. The exemptions were required in advance of the DO making a decision on an application by MM&A to renew its licence. Both times, following the granting of the exemption by the Commission, the DO made the decision to grant MM&A a licence. The most recent licence was granted for a very short term of 10 months in May 2021 [8, 9], and contained several licence conditions, including that MM&A would follow a repayment plan for the fee arrears, and that it would follow a plan to manage its waste inventory and progress toward the eventual removal of the waste. Leading up to the bankruptcy, MM&A failed to meet its repayment plan.

MM&A was declared bankrupt at 12:01 AM on August 20, 2021. MM&A has since ceased to exist and has had no control over the assets or the site. Richter Advisory Group Inc. is the Trustee of the estate of MM&A under the *Bankruptcy and Insolvency Act*.

Consequences and Risk

The contaminated waste is stored outdoors on the MM&A property, in 18 locked intermodal containers (See Figure 1 and 2). The waste contains small concentrations of low enriched uranium, and is therefore subject to nuclear material accountancy and safeguards. The CNSC has a documented inventory of the waste for the purpose of nuclear materials accounting. The inventory contains 68.4 kg of natural uranium and low enriched uranium (<5%). This amount is distributed over surface contaminated metals, filter cake, spent shot from past sandblasting activities, and quantities of acid estimated at approximately 150 m³, stored in totes, inside the intermodal containers (see Figures 3 to 12). The radiation fields around the containers are at or near natural background levels (see Figure 4), and CNSC staff inspect the site periodically. There are no immediate risks to the health and safety of the public and the environment; however, as a result of the bankruptcy, MM&A no longer has control of the site or its assets.

From a nuclear criticality safety perspective, based on operational experience and past assessments performed by CNSC staff, indications are that the current configuration of MM&A's waste is subcritical and it will remain so under the most likely abnormal conditions.

Pursuant to the obligations under its safeguards agreements with the International Atomic Energy Agency (IAEA), the Government of Canada must provide access and information on nuclear material and associated activities. As the responsible government authority to implement the safeguards agreements, the CNSC requires licensees to provide this information and access via its regulatory framework. Prior to the bankruptcy, given their possession of nuclear material, MM&A was required to have a safeguards program and under REGDOC-2.13.1, was classified as a Location Outside Facilities. In absence of a licensee, the CNSC will have to assume the responsibility of providing information and access to the IAEA to fulfill Canada's safeguards obligations.

From a nuclear security perspective, concerns relate to the deliberate and targeted theft of the nuclear material and/or its deliberate and targeted sabotage. The likelihood of either occurring is assessed to be low. However, the site is currently unsecured from access by the public, and this remains a concern to CNSC staff.

CNSC is a creditor, with MM&A owing approximately \$233,000 in licensing fees to the CNSC. The decommissioning costs could be high, and if the CNSC inherits the responsibility to decommission the site and dispose of the nuclear substances, funding would likely be sought from Treasury Board. The amount is yet undetermined, however it is CNSC staff's opinion that the financial guarantee would be insufficient to cover the cost, as explained in the sections on Preliminary Decommissioning Plan and Financial Guarantee below.

CNSC Actions

On August 17, 2021, before the bankruptcy, CNSC inspectors from the Mississauga Regional Office performed a follow-up inspection (further to a February 2021 compliance inspection) and toured the MM&A site to verify that the waste remained protected. On August 20, 2021, upon the official announcement of MM&A's bankruptcy, CNSC site inspectors applied lock-out tags on the containers (see Figure 13) containing nuclear substances and performed a visual inspection of the containers and the site to ensure the continued safety and security of the nuclear substances.

In addition, several other steps were undertaken. CNSC staff have:

- Executed a program of periodic site visits by CNSC inspectors.
- As part of CNSC's site visits, inspectors have periodically taken radiation readings around the site and around the trailers. The radiation levels recorded outside the trailers are around 0.08 µSv/h, which is consistent with background levels.
- Held virtual meetings with the Trustee and key creditors (Bank of Nova Scotia, Business Development Bank of Canada) to determine parties roles and responsibilities and their next steps.
- Notified local police and fire services regarding the bankruptcy of MM&A.
- Notified the IAEA regarding the bankruptcy.
- Notified CBSA Counter Proliferation Operations Section regarding bankruptcy and to verification of any export activity.
- Notified the Office of the Fire Marshall of Ontario.
- Participated in a meeting of MM&A's creditors organized by the Bankruptcy Trustee on September 9, 2021.
- Initiated a contract with a third party to conduct periodic site visits to the MM&A site, and report to the CNSC.

Financial Guarantee

MM&A maintained a financial guarantee of \$200,000 through a letter of credit, which MM&A indicated during relicensing that it was the maximum amount it was able to secure. CNSC staff are of the opinion that the amount of \$200,000 is largely insufficient to fund a complete clean up of the site, including the removal of all contaminated wastes. The letter of credit is with the Bank of Nova Scotia and expires on April 30, 2022.

Preliminary Decommissioning Plan

MM&A submitted a Preliminary Decommissioning Plan (PDP) as part of its application for licence renewal. MM&A intended to process the waste under a future licence to extract and concentrate the contaminants so that the waste could be disposed of more economically. The plan did not contain the details or costs associated with the waste disposal and decommissioning. As a condition of the licence issued in 2021, MM&A was required to resubmit a revised detailed PDP to the CNSC in September 2021. The PDP was never revised.

The full cost of decommissioning is undetermined at this time as it requires a detailed characterization of the waste. Characterization requires expertise in nuclear waste management and was planned in MM&A's medium-term plans, but this work was not completed. CNSC has a nuclear materials inventory of MM&A's waste which shows a total uranium content of 68.4 kg, but this does not list all the isotopes and chemical contents.

The characterization of the waste could be a significant project in itself. Preliminary indications are that the containers would need to be emptied of the drums and totes in order to provide access for sampling, mixing and other operations. The integrity of the containers and trailers have to be ascertained prior to transportation of the waste.

Planned Actions

CNSC staff are working on the following actions:

- Continue to ensure that the nuclear substances remain secure and safe through the periodic visits of CNSC inspectors, periodic monitoring of radiation fields and the retention of a third party (e.g., security firm) to conduct site visits.
- The development of a longer-term security plan to establish controlled access to the site.
- The nuclear materials physical inventory taking for the site is scheduled for September 30, 2021. As the inventory has remained the same over the last few years, the CNSC intends to submit the required nuclear material accountancy information for the material balance area. If selected for a physical inventory verification by the IAEA, the CNSC will coordinate access to the site and the nuclear material.
- Explore options with all parties regarding decommissioning and removal of the nuclear substances.
- Access the financial guarantee to contribute to the costs for decommissioning the site.
- Request that the Commission revoke WNSL-W2-3750.00/2022 as well as MM&A's four export licences that remain active to this date (EL-B1-28174.0/2024, EL-B1-27661.0/2021, EL-B1-27658.0/2023, EL-A1-26682.0/2024). The timing will be determined in consultation with the Secretariat but will be completed prior to the end of fiscal year 2021-22.
- CNSC staff are evaluating possible regulatory actions at the DO level, which could include an order, which will result in a review by the commission.

Conclusion

CNSC's priority remains to protect the health and safety of the public and the environment, and ensure the nuclear substances are secure and remain subject to safeguards. CNSC continue to engage in all possible avenues to ensure the nuclear substances stored on the MM&A property are disposed of as soon as possible.

Noting that this issue will be ongoing for several months, CNSC staff commit to reporting back to the Commission through periodic Regulatory Oversight Reports covering nuclear substances, which include WNSLs. CNSC staff will be recommending a revocation of the licences held under the NSCA; the Commission will receive relevant information from staff along with that recommendation.

References:

1. In the Matter of the Notice of Intention to Make a Proposal of Mississauga Metals & Alloys Inc. and 1420561 Ontario Inc., July 26, 2021, <https://www.richter.ca/wp-content/uploads/2021/07/32-159247certificate.pdf>
2. Notice of Bankruptcy, First Meeting of Creditors (Subsection 102(1) of the Act) In the Matter of the Bankruptcy of Mississauga Metals & Alloys Inc. and 1420561 Ontario Inc., August 27, 2021, https://www.richter.ca/wp-content/uploads/2021/07/mm-a_notice-of-bankruptcy-first-meeting-of-creditors.pdf
3. Fire at Mississauga Metals and Alloys (e-Doc 5226654)
4. CNSC staff update on the fire at Mississauga Metals and Alloys Inc. licensed location, February 3, 2017 (e-Doc 5226517)
5. CMD 20-M37, Update from CNSC staff on Mississauga Metals and Alloys, November 5 2020, <https://www.nuclearsafety.gc.ca/eng/the-commission/meetings/cmd/pdf/CMD20/CMD20-M37.pdf>
6. Record of Decision, Exemption under Section 7 of the NSCA from paragraph 24(2)(c) of the NSCA and Part 2 of the CRFR, April 30, 2019 (e-Doc 5890171)
7. Record of Decision Exemption under Section 7 of the NSCA from paragraph 24(2)(c) of the NSCA, April 26, 2021, <https://nuclearsafety.gc.ca/eng/the-commission/pdf/Decision-MMA-exemption-CMD21-H106-e.pdf>
8. Record of Decision, Application from Mississauga Metals and Alloys for the renewal of its Waste Nuclear Substance Licence, April 30, 2021 (e-Doc 6549695)
9. Waste Nuclear Substance Licence, Mississauga Metals and Alloys Inc., WNSL-W2-3750.00/2022 (e-Doc 6551498)

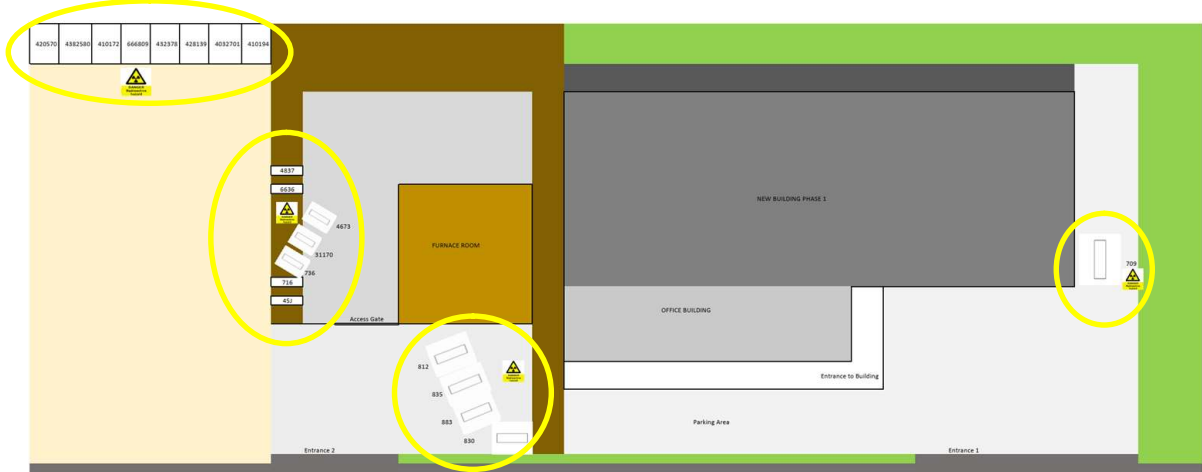
Photographs of the MM&A Site

Figure 1: Aerial picture of the MM&A site:



Note: Intermodal containers circled in yellow. This Google Map picture predates the current layout (shown in Figure 2).

Figure 2: Diagram of the current location of containers:



This diagram (provided by MM&A) shows the current location of the intermodal containers, circled in yellow.

Pictures of the February 2021 CNSC inspection:

Figure 3: Intermodal containers



This picture shows the 8 intermodal containers as seen at the top left of the aerial picture and diagram.

Figure 4: Totes inside a container



Interior of a container, with totes, and radiation survey meter showing a reading of 0.12 $\mu\text{Sv/h}$.

Figure 5: Mixed solid waste inside a container



Interior of a container with mixed solid waste.

Figure 6: Solid waste inside an open tote



Solid waste inside an open tote, inside a container.

Figure 7: Drums inside a container



Drums inside a container, unidentified solid waste.

Pictures of the August 17 follow-up inspection:

Figure 8: Drums inside a container



Figure 9: Mixed solid waste inside a container



Figure 10: Totes inside a container



Figure 11: Containers labelled as Radioactive and hazardous chemicals



Pictures of the August 20 site visit and application of seals:

Figure 12: Locked container with radioactive label



Figure 13: Seal applied on container by CNSC staff

