Stericycle®
Protecting People. Reducing Risk.™

Unit #100 & #200 – 1407 Kebet Way
Port Coquitlam, BC
Canada V3C 6L3
Tel: 604-468-1561
Fax: 604-945-8827

March 16, 2012

Ministry of Environment
10470 152 Street 2nd Floor
Surrey BC V3R 0Y3

ATTENTION: David Hebert

REFERENCE: **Facility RS-16600 Request for Approval of Autoclave Delisiting Protocol, 200-1407 Kebet Way, Port Coquitlam, British Columbia**

Under the provisions of Section 53 of the *Hazardous Waste Regulation*[1], Stericycle, ULC (Stericycle) formerly Stericycle, Inc. is requesting approval from the Ministry of Environment (MoE) of the attached delisting protocol for the treatment of biomedical Hazardous Waste using autoclave technology. Should this approval be granted and treatment conducted in accordance with the test protocol attached, the treated waste will be exempt from the HWR.

Stericycle is planning to complete an equipment upgrade at the biomedical Hazardous Waste treatment facility located in Port Coquitlam, BC to utilize autoclave technology. Currently, biomedical waste treatment at the Stericycle facility is conducted via hydroclave technology, and testing is conducted in accordance with approved demonstration trials and delisting protocol for this technology.

Upon approval from the MoE of the attached delisting protocol, and installation of the autoclave equipment at the facility, demonstration trials will be conducted, and the Operational Plan will be updated as required. Note that the current hydroclaves are rapidly coming to the end of their useful life. They are therefore replaced by a new autocalve at the beginning of May 2012 to prevent any interruption in service. The demonstration trials will then be completed immediately after the autocalve installation.

We look forward to your favourable response in the near future. Please contact the undersigned if you have any questions or require further information.

Regards,

Mike MacDougall
c.c Jean-Pierre Pepin
SNC-Lavalin

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[1] *Hazardous Waste Regulation (HWR), B.C. Reg. 63/88, including amendments up to B.C. Reg. 63/2009.*

STERICYCLE, ULC

enc.

ATTACHMENTS

1: Delisting Protocol

PROTOCOL FOR THE MANAGEMENT OF TREATED WASTE RESIDUES FROM STERILIZATION OF BIOMEDICAL WASTE (NON-ANATOMICAL AND WASTE SHARPS) IN A AUTOCLAVE UNIT AT THE PORT COQUITLAM BIOMEDICAL WASTE MANAGEMENT FACILITY OPERATED BY STERICYCLE, ULC

Prepared by:
Jean-Pierre Pepin, Eng, MBA
Director, Environment, Safety and Health
Stericycle, ULC
19 Armthorpe Road, Brampton ON L6T 5M9

Date: March 16, 2012

Facility: RS-16600
Stericycle, ULC
Unit#200 -1407 Kebet Way
Port Coquitlam, British Columbia V3C 6L3

Purpose

Under the provisions of Section 53 of the *Hazardous Waste Regulation,* Stericycle, ULC (Stericycle) formerly Stericycle, Inc. is requesting approval from the Ministry of Environment (MoE) of the delisting protocol below for the treatment of biomedical Hazardous Waste using autoclave technology.

Testing and Verification of Sterilization Process

Biomedical Waste – Non-Anatomical and Waste Sharps

This protocol applies only to the residue after treatment (i.e. sterilization) of non-anatomical waste, including waste sharps, as defined in the Hazardous Waste Regulations and/or as classified under the Transport of Dangerous Goods Regulations as class 6.2.
The protocol is to demonstrate that the residue after treatment is not a hazard to human health or the environment are suitable for disposal as non-hazardous waste.

Treatment

The biomedical waste is sterilized in the autoclave where steam, heat and pressure are used to achieve sterilization.

In order to validate the ability of the autoclave system to sterilize biomedical waste, Stericycle ULC (Stericycle) will perform periodic autoclave efficiency tests using biological indicators.

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Demonstration trials

Demonstration trials will be done using the method described above and with an independent lab responsible for the incubation of the biological indicators. Stericycle will notify the Director before performing the test. s.21

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s.21 Once all the tests are done and conclusive, regular operations will begin and the residue will be released from the facility.

The records of time, temperature and pressure produced by the autoclave's chart recorder will be used as evidence of treatment for each cycle.

A complete report will then be produced showing:

- the number of loads processed
- qualitative and quantitative description of the hazardous waste treated during the trial
- the operating parameters for each load, including copies of the autocalve cycle chart)
- the details of the testing methodology (delisting protocol)
- description of any air emissions, liquid or solid residues generated as a result of the treatment
- results of all testing (including lab results), and
- analysis of the test results, including discussion of any conditions that may cause detrimental effect on human health or the environment, if any.
- Updated delisting protocol

On-Going Monitoring

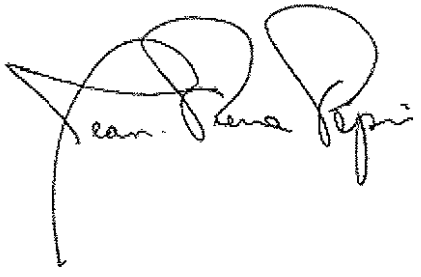
The autoclave is equipped with a chart recorder which records the temperature and pressure inside the vessel at all times as well as a computer-based controller that ensures the autoclave system completes its cycle as programmed. At the end of each cycle, the autoclave operator will verify that the parameters have all been met by looking at the chart.

Once a week, Stericycle will perform an in-house validation test. All 4 autoclave bins will be prepared with biological indicators as previously described. The bins will then be autoclaved according to the approved procedure. Once the waste is autoclaved, the biological indicators will be retrieved and immediately incubated by Stericycle according to the manufacturer's specifications.

Stericycle personnel will record all relevant information regarding this test including the date and time of the test as well as the processing temperature, pressure and time, and the lot number of the biological indicators used (a copy of the lot certificate will be kept on file). The results will also be recorded. Records of weekly tests will be kept on files for two years.

If one or more of the indicators turns positive within incubation period, Stericycle will immediately notify the Director. A complete investigation will be initiated and no other waste will be treated until the cause of the problem has been determined and fixed.

The protocol will demonstrate, as required by Section 19 (2) of the Hazardous Waste Regulation, that the residue after treatment is not a hazard to human health or the environment are suitable for disposal as non-hazardous waste.



PROTOCOL FOR THE MANAGEMENT OF TREATED WASTE RESIDUES FROM STERILIZATION OF BIOMEDICAL WASTE (NON-ANATOMICAL AND WASTE SHARPS) IN A AUTOCLAVE UNIT AT THE PORT COQUITLAM BIOMEDICAL WASTE MANAGEMENT FACILITY OPERATED BY STERICYCLE, ULC

DEMONSTRATION TRIALS RESULTS ⇐

Prepared by:
Jean-Pierre Pepin, Eng, MBA
Director, Environment, Safety and Health
Stericycle, ULC
19 Armthorpe Road, Brampton ON L6T 5M9

Date: May 22, 2012

Facility: RS-16600
Stericycle, ULC
Unit#200 -1407 Kebet Way
Port Coquitlam, British Columbia V3C 6L3

On May 17, 2012, Stericycle, ULC (Facility RS-16600) completed three demonstration trails in compliance with the Protocol dated March 16, 2012 (attached). All three trials were performed using biomedical waste (non-anatomical and sharps).

The table below shows the results of the trials, including the amount of waste processed during each trial. Laboratory results are attached.

PORT COQUITLAM SITE - DEMONSTRATION TRIAL

PROCEDURE:

Insert 2 biological indicators (ATTEST 1292) in each of the 4 holders
Insert the holders straight up in the middle of each bin
Fill each bin with non-anatomical biomedical waste
Treat all 4 bins in the autoclave under normal operating conditions
Retrieve the holders and the biological indicators
Send the indicators to the lab for incubation

TRIAL #1

DATE: **May 17th, 2012** Cycle start time: **9:50am**
(attach autoclave chart)

Total weight treated: **1029.4 kg**

	BI #s	Result	BI #s	Result
Bin 1	1	negative	5	negative
Bin 2	2	negative	6	negative
Bin 3	3	negative	7	negative
Bin 4	4	negative	8	negative
Control	C1	positive	C2	positive

TRIAL #2

DATE: **May 17th, 2012** Cycle start time: **11:20am**
(attach autoclave chart)

Total weight treated: **985.5 kg**

	BI #s	Result	BI #s	Result
Bin 1	9	negative	13	negative
Bin 2	10	negative	14	negative
Bin 3	11	negative	15	negative
Bin 4	12	negative	16	negative
Control	C3	positive	C4	positive

TRIAL #3

DATE: **May 17th, 2012** Cycle start time: **12:45pm**
(attach autoclave chart)

Total weight treated: **712.8 kg**

	BI #s	Result	BI #s	Result
Bin 1	17	negative	21	negative
Bin 2	18	negative	22	negative
Bin 3	19	negative	23	negative
Bin 4	20	negative	24	negative
Control	C5	positive	C6	positive

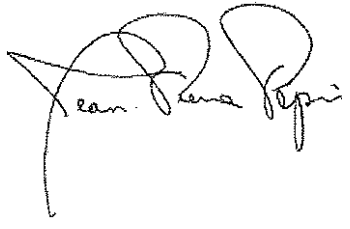
As result of the treatment, air emissions, liquids and solid residues generated were of the same nature and order of magnitude as with the previous treatment technology (hydroclaves). More specifically, air emissions were as in the approved Operation Plan (air exhaust system). Liquid residues consisted of condensed steam sent to sewer in compliance with the Metro Vancouver Waste Water permit. Solid residues consisted of treated biomedical waste. The results of this demonstration trial prove that the treated waste is not a hazard to human health or the environment is suitable for disposal as non-hazardous waste.

As stated above, all biological indicators that were submitted to the treatment cycle showed no growth. This effectively means that the biomedical waste treated has been sterilized and therefore no longer is a hazard to human health or the environment (i.e. is not longer hazardous). It can be disposed of as non-hazardous waste. There was no condition observed during the trials that could cause detrimental effect on human health or the environment.

CONCLUSION

The protocol did demonstrate, as required by Section 19 (2) of the Hazardous Waste Regulation, that the residue after treatment is not a hazard to human health or the environment are suitable for disposal as non-hazardous waste.

Stericycle, ULC is requesting, under the provisions of Section 53 of the *Hazardous Waste Regulation,* approval from the Ministry of Environment of the delisting protocol for the treatment of biomedical Hazardous Waste using autoclave technology.



IG MicroMed Environmental Inc.
190 - 12860 Clarke Place, Richmond, B.C. V6V 2H1
Tel: (604) 279-0666 Fax: (604) 279-0663

CERTIFICATE OF ANALYSIS

Attn: Tom Jensen
Plant Manager
Stericycle
1407 Kebet Way, Unit # 100
Port Coquitlam, B.C.
V3C 6L3

22 May, 2012

PH: (604)347-6748

Reference No: 247096.

These are the revised results of the samples received May 17.

Product Sampled: Three various samples s.21 were received in the laboratory for analysis.

Sample Identification	Control	Samples
Sample # Trial 1 BIN (1 - 4) (8 biological indicators) (ATTEST 1292) ~	Positive (Growth) ~	Negative (No Growth) ~
Sample # Trial 2 BIN (1 - 4) (8 biological indicators) (ATTEST 1292) ~	Positive (Growth) ~	Negative (No Growth) ~
Sample # Trial 3 BIN (1 - 4) (8 biological indicators) (ATTEST 1292) ~	Positive (Growth) ~	Negative (No Growth) ~

Jim Wilson, B.Sc.
Microbiologist

JW/cf

Note: ~ = Additional information added.

Page 11 redacted for the following reason:
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BRITISH COLUMBIA

May 22, 2012 File: PS-16600

Stericycle, ULC
1407 Kebet Way,
Port Coquitlam, British Columbia
V3C 6L3

Attention: Mike MacDougall, District Manager Western Canada

Re: Demonstration Trial and Delisting Protocol

The delisting protocol submitted to Environmental Protection Officer David Hebert on March 27, 2012 and the independent assessment received May 22, 2012 regarding the results of your demonstration trial conducted May 17, 2012 has been reviewed by the ministry.

It is noted that, Jean-Pierre Pepin a qualified professional, has assessed the demonstration trial results and determined that residues after treatment are considered non-hazardous and that the sterilization conditions were met when processing non-anatomical biomedical waste and waste sharps in the newly installed autoclave units.

Based on the assessment by the qualified professional and the ministry's review of the demonstration and delisting protocol, the following demonstration trial and subsequent delisting protocol is **hereby approved** pursuant to Section 18(2) and Section 53(1) respectively of the Hazardous Waste Regulation:

> Protocol for the Management of Treated Waste Residues from Sterilization of Biomedical Waste (Non-anatomical and waste sharps) in an Autoclave Unit, at the Port Coquitlam Biomedical Waste Management Facility Operated by Stericycle, ULC, dated March 16, 2012.

. . . / 2

Ministry of Environment
South Coast Region
Environmental Protection
Division
Mailing/Location Address:
10470 152 Street
SURREY BC V3R 0Y3
Telephone: (604) 582-5200
Facsimile: (604) 584-9751
http://www.gov.bc.ca/env

Pursuant to Sections 19(2)(b) and 19(3) of the Hazardous Waste Regulation, the treatment residues from the approved delisting protocol are suitable for disposal as non-hazardous waste.

The approved delisting protocol is attached for your reference.

If you have any questions, please contact David Hebert at 604 582 5315.

Sincerely,

Avtar Sundher, B.Sc.
for Director, *Environmental Management Act*
South Coast Region

Attachment: Approved Delisting Protocol

cc: Environment Canada

BRITISH COLUMBIA
The Best Place on Earth

November 7, 2011 File: RS-16600

Stericycle Inc.
Unit 200, 1407 Kebet Way,
Port Coquitlam, BC V3C 6L3

Attention: Mr. Vago

Re: Contingency Plan Approval under the Hazardous Waste Regulation, for the Stericycle Inc. Facility located at Unit 200, 1407 Kebet Way, Port Coquitlam, BC

Stericycle Inc. has submitted a Contingency Plan for approval under the Hazardous Waste Regulation. Pursuant to the provisions of Section 11 of the Hazardous Waste Regulation and subject to the terms and conditions prescribed in this letter, the following plan is **hereby approved**:

- Hazardous Waste Regulation, Section 11, Contingency Plan, prepared by Stericycle Inc. and dated August 2011

The plan referenced above contains details of the contingency activities. Contravention of any of the conditions set out in the approved Plans is a violation of the Hazardous Waste Regulation and the *Environmental Management Act*.

Yours truly,

Cassandra Caunce
Section Head, Env Mgmt, Business and Standards
for Director, *Environmental Management Act*
South Coast Region

Ministry of Environment
Environmental Protection Division
South Coast
Mailing Address:
2nd Fl., 10470 152nd St
Surrey, BC V3R 0Y3
Telephone: (604) 582-5200
Facsimile: (604) 930-7119
http://www.gov.bc.ca/
http://www.gov.bc.ca/env/

BRITISH COLUMBIA
The Best Place on Earth

File: RS-16600

Date: OCT 07 2010

REGISTERED MAIL

Stericycle Inc.
19 Armthorpe Road
Brampton, Ontario
L6T 5M4

Attention: Mr. Ed Vago:

Re: Hazardous Waste Regulation Section 4 Operational Plan Amendment for Stericycle's Facility located at Unit 200, 1407 Kebet Way, Port Coquitlam, BC V3C 6L3

Stericycle Inc. has submitted a Hazardous Waste Regulation Section 4 Modified Operational Plan for approval. Pursuant to the provisions of Section 4(1)(d) of the Hazardous Waste Regulation and subject to the terms and conditions prescribed in this letter, the following plan is **hereby approved**:

- Stericycle Hazardous Waste Regulation Section 4 Operational Plan Version 2, September 21, 2010

The plan is for the storage and treatment of hazardous waste at the above referenced location.

The plan referenced above contains details of the type and quantity of authorized storage and monitoring, reporting and auditing requirements. Contravention of any of the conditions set out in the approved Operational Plan is a violation of the Hazardous Waste Regulation and the *Environmental Management Act*.

A. Financial Security:

Pursuant to Section 17(2) of the Hazardous Waste Regulation, security for the storage facility has been assessed at **$134,000**. This security shall be provided in a form acceptable to the Director before any hazardous waste is stored at the facility.

Any proposed modifications to the approved plan require the prior approval of the Director. Approval of other plans may also be required under the Hazardous Waste Regulation for the facility to be fully authorized for storage of hazardous waste. You are reminded that compliance with all applicable terms and conditions of the regulation is required. Contravention of any of the conditions of the regulation is a violation of the *Environmental Management Act* and may result in prosecution.

Yours truly,

Cassandra Caunce
for Director, *Environmental Management Act*
Lower Mainland Region

cc. Richard Haynes: Unit 150B, 1407 Kebet Way, Port Coquitlam, BC V3C 6L3

Stericycle
Protecting People. Reducing Risk.

Unit 200, 1407 Kebet Way
Port Coquitlam, BC
Canada V3C 6L3
Tel: 604-468-1561
Fax: 604-945-4958

HAZARDOUS WASTE REGULATION
SECTION 4 OPERATIONAL PLAN

Facility Name and Address
Stericycle, Inc.
Unit 200, 1407 Kebet Way, Port Coquitlam, BC V3C 6L3

Facility Contact:
Richard Haynes, General Manager
Unit 150B, 1407 Kebet Way, Port Coquitlam, BC V3C 6L3
Phone: 604-468-1561 Fax: 604-945-4958
e-mail:rhaynes@stericycle.com

Landowner:

Unit 200 1407 Kebet Way
Building owner Mr. Doug Stead
Unit 100, 1407 Kebet Way
Port Coquitlam BC, V3C 6L3

Stericycle Corporate Office:

19 Armthorpe Road
Brampton, Ontario
L6T 5M4

Legal Description: Lot A, (BK340976), Section 18 & 19, Block 6, North Range 1 East, New Westminster District, Plan LMP 19051.
Lat Coordinates: 49°14'36.6" Long Coordinates: 122°44'57.7"

Ministry Reference Numbers' : RS-16600
BCG #27124

Version 2
September 21, 2010

TABLE OF CONTENTS

Appendices:

1.0 INTRODUCTION

The Stericycle, Inc. (Stericycle) facility began operation in March 2002 (as Hospital Sterilization Services Inc. (HSS)) to store, treat and transport biomedical, cytotoxic and medicinal wastes at a hazardous waste treatment facility located at 200 – 1407 Kebet Way, Port Coquitlam, British Columbia. Stericycle operates a fleet of trucks that are licensed under the *Hazardous Waste Regulation* to transport the waste to the facility. Wastes are collected from health care facilities, medical offices, clinical and research laboratories and from organizations that acquire biomedical wastes. The non-anatomical waste including sharps is treated on-site using autoclave technology units (Hydroclaves), while the anatomical, cytotoxic, medicine wastes and waste requiring incineration are transported to licensed incinerators in Alberta, Ontario and Washington, USA.

Part 4, Divisions 1, 5, 6, 7 and 8 of the BC Hazardous Waste Regulation do not apply as Stericycle does not operate a recycle or mobile facility, landfill or land treatment facility and does not store any waste permanently. Stericycle does not accept any of the wastes listed in Part 6, Management of Specific Wastes of the Regulation.

2.0 AUTHORIZED TYPE & MAXIMUM AMOUNT OF HAZARDOUS WASTE

The type of hazardous waste and maximum quantity of hazardous waste that will be stored on site is as follows:

Waste Name (include TDG class if applicable)	Maximum Quantity Stored kg	Treatment Rate kg/d	Recycling Rate	Discharge Rate kg/d

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All materials suspected or known to be contaminated with any of the organisms listed in UN 3373 Category B, item 28 (TSE) or vCJD or materials classed as Specified Risk Materials will be received on an individual manifest and be sent for incineration on an individual manifest.

The following are the types of waste received at the Stericycle plant:

(a) Biomedical Wastes as defined in Part 1 – Interpretation and Application of the Hazardous Waste Regulation.

(b) Cytotoxic Waste
Cytotoxic agents are used to treat cancer and are considered to be hazardous materials with a toxic effect upon cells. All items that come in contact with cytotoxic drugs during preparation and administration shall be treated as cytotoxic waste.

(c) Waste Medicines
This consists of drugs or other medicinal chemicals that are no longer usable in patient treatment as they have become outdated or contaminated, were stored improperly or are no longer required. These are either classed as regulated (dangerous goods) or non-regulated but both categories are incinerated.

The following types of waste are not accepted:

(a) Biomedical waste that is known to contain a Category A organism that requires an Emergency Response Assistance Plan under the Transportation of Dangerous Goods. These were previously called risk group 4 agents.

3.0 MONITORING

3.1 Waste Characterization

The only wastes accepted at the facility are biomedical, cytotoxic, and medicines that have been packaged in containers according to the classification and packaging procedures that meet all Canadian Standards. Stericycle has provided to customers *Guidelines for Handling Biomedical, Cytotoxic & Pharmaceutical Wastes.* The Guidelines include detailed information on identification, classification, labelling and packaging of the waste categories handled. As well, Stericycle has provided colour coded posters that are to be used in the departments generating waste and for the staff packing the waste.

On an annual basis, Stericycle meets with the staff of the major facilities to review new developments and issues. The four Health Authorities have developed a common training package for managing both TDG regulated and non-regulated hazardous wastes and Stericycle (formerly HSS) had input into the content.

The driver visually checks containers for proper labelling and packaging and ensures the required documentation (including the waste manifest and paperwork associated with the transportation of hazardous waste for both TDG regulated and BC Biomedical Waste) are properly completed before accepting the waste.

Upon receipt at the facility, containers are scanned using a bar code system and weighed along with the labelling and packaging being reviewed and verified to ensure it meets the requirements of the waste classification (e.g. TDG labels affixed for TDG regulated wastes). Any discrepancies are reported to the supervisor and generator for investigation.

Information is collected from each container is recorded and used for tracking purposes. Information collected includes:

- Shipment date (date received at facility);
- Type and classification of waste; and
- Source of waste (i.e. client).

Once all the information is recorded, containers of TDG Class 6.2 Biomedical Waste are stored separately from BC Biomedical waste in their own designated area within the facility. The facility also tracks the type and quantity of waste in storage and where it is stored in the facility. In addition, the date that waste is treated and/or shipped out of the facility is also tracked and recorded.

Wastes that are regulated as TDG Class 6.2 Biomedical Waste are treated and delisted as per the Approved Demonstration Trials & Delisting Protocols using the same processes and equipment at the facility as the non-TDG regulated BC Biomedical waste. Batches of hazardous waste treated in the hydroclave units could contain both waste types depending on volumes of wastes being received at the facility.

The waste handling storage and management will be reviewed during the routine facility audit required for the facility under the operational plan. The audit scope will also include verification that the maximum permitted amounts on the various types of waste were not exceeded.

Where a generator identifies its waste as BC Biomedical Waste, as defined in the BC Hazardous Waste Regulations, Part 1, Stericycle will follow the process noted below prior to transporting or receiving any waste. The purpose of this process is to ensure that the waste has been properly characterized.

Step 1 – Request from the generator a copy of the procedure and testing / screening protocol that it uses to support the declaration that a waste can be appropriately classified as a BC Biomedical Waste.

Step 2 – Confirm that the protocol provided by the generator supports the classification of waste as BC Biomedical Waste.

Step 3 – Notify the generator they are obligated to retain the results associated with the testing and screening of any future shipment that is classified as BC Biomedcal Waste shipment in the event they are asked to produce results for validation by Stericycle or another third-party. .

Step 4 – Conduct an annual review of the detailed procedure and testing protocol used by the generator to confirm that there have been no substantial changes to the process which generates waste, the staff tasked with handling waste or the environment in which the waste is generated.

Step 5 – Provide training in respect of the BC Hazardous Waste Regulations, as amended and as requested by the generator.

It is important to note that, regardless of classification (TDG regulated UN3373 or BC Biomedical Waste) all waste received for treatment at Stericycle's facility will be treated and declassified using the same processes and equipment.

3.2 Stormwater Effluent Monitoring

There is no discharge of effluent to the stormwater system.

3.3 Monitoring Effluent Discharge to Sanitary Sewer

Effluent associated with the sterilization of biomedical waste in the Hydroclave units is discharged to the sanitary sewer under a permit from the Greater Vancouver Sewerage and Drainage District (GVS&DD). During the demonstration trials effluent monitoring verified compliance with the GVS&DD discharge criteria and Schedule 1.2 of the Hazardous Waste Regulation. Once a month, a grab sample is collected by an independent laboratory for analysis for:

- p^H (immediate)
- temperature (immediate)
- total suspended solids
- biochemical oxygen demand (BOD)
- total oil and grease
- total sulphide
- ammonia
- total benzene/ethylbenzene/toluene/xylene (BETX)
- formaldehyde
- volatile organics

Test results are checked against the levels provided in the GVS&DD permit and in Schedule 1.2 of the Hazardous Waste Regulation for disposal into the sewer system. The GVS&DD permit requires that the facility maintain a monthly log of the volume and type of waste that is treated and discharged daily. Included in the GVS&DD report is the maximum daily flow and the number of batch discharges for each month.

3.4 Treatment/Delisting Protocol Monitoring

The operation of the Hydroclave units is controlled by redundant computer systems that are pre-set by the manufacturer. Continuous recording of the time, temperature and pressure is done and the records retained for at least two years.

Verification of treatment consists of parametric monitoring of time, temperature and pressure; minimum of weekly testing using a chemical integrator that provides confirmation that the three parameters have been achieved and by monthly quality assurance testing using a biological indicators.

3.5 Air Emissions

Air exhaust systems located in the treatment areas are capable of exhausting 170 m^3/min of air to the atmosphere through a stack located on the roof of the facility. No treatment is required prior to discharge to the atmosphere. Exterior exhausts vent air sampling by A. Lanfranco and Associates Inc. was conducted in February 2002 and found that the air samples were well below acceptable levels.

3.6 Residual Waste

Treated solid residue shall not be released from the facility until subsequent tests validate that sterilization conditions are met. Treated waste that has been determined to no longer be a hazardous waste will be disposed of through the municipal solid waste system.

4.0 REPORTING

The operational plan includes a reporting schedule consisting of both quarterly and annual reports. Stericyle will prepare quarterly reports with information on waste received, treated, stored and transferred for treatment and/or final disposal, manifest discrepancies, emergency incidents and their resolution. These reports will be stored at the facility and be available for inspection by Ministry staff.

These reports, under Ministry file number **RS-16600**, will be summarized and submitted to the Director in an annual report. The annual report will also include summaries of monitoring results collected under section 3 of the Operational Plan, summaries of annual meetings between Stericycle and their major generators, inspections, date of testing of emergency procedures and contingency plan review and other requirements of the Hazardous Waste Regulation.

The annual report shall be submitted to the Regional Manager, Environmental Protection, by the end of January each year.

5.0 AUDITING

The facility will be audited annually by an independent qualified professional registered in British Columbia. The audit shall assess compliance of all aspects of the Hazardous Waste Regulation. The audit report will include a summary of non-compliance issues and recommendations for resolving them.

The audit will review compliance of the facility in terms of all aspects of the Hazardous Waste Regulation, including assessment of compliance with approved plans, waste information documentation and delisting protocol. The audit report will include a summary of the professional qualifications of the auditor and will include a summary of non-compliance issues. The audit report will be signed and certified by the auditor with the statement "**Standard auditing principles were followed and the audit represents a true compliance of the facility in terms of the Hazardous Waste Regulation".**

The next audit report will be submitted to the Environmental Protection Regional Manager by December 31, 2010.

Where a significant non-compliance issue is found, as determined by the Director, an audit will be conducted every six months until compliance achieved, as determined by the Director.

6.0 FINANCIAL SECURITY

Pursuant to Section 17(2) of the Hazardous Waste Regulation, security for the storage facility in an amount and form acceptable to the Director will be provided before any hazardous waste is stored at the facility.

Any proposed modifications to the approved plan will be submitted to the Director for approval prior to implementation.

Appendix A – Approved Demonstration Trials and Approved Delisting Protocols
Appendix B – Site plans
Appendix C – Protocol for Handling TSE and SRM Waste

APPENDIX A

APPROVED DEMONSTRATION TRIALS & DELISTING PROTOCOLS
RS-16600
HOSPITAL STERILIZATION SERVICES INC. FACILITY
200 - 1407 Kebet Way, Port Coquitlam

The following table lists the approved demonstration trials and approved delisting protocols for the above facility. This table shall be updated when demonstration trial and delisting protocol information changes and this updated appendix shall be submitted to the Regional Environmental Protection Manager within 30 days of any changes and a copy kept at the facility as part of the operational plan.

Hazardous Waste Treated [Group the specific waste treated under the general waste name that appears on the operational plan]	***Demo Trial Approval Date & Report Date*** [Note HWR section 18 (2&4)]	***Delisting Protocol Approval Date*** [Note HWR section 53]
(Indicate waste name as shown on Op Plan in shaded areas) BIOMEDICAL WASTE, N.O.S. (classified as per ICAO) TDG Class 6.2		
Non-Anatomical and Sharps Biomedical Waste, UN3291, UN3373 & UN 2814	Demo Trial Approval: Report Date: March 2002	Amended March 21, 2006

Note: Wastes that require incineration are shipped to a licensed hazardous waste incinerator in Alberta and Ontario, Canada and Washington, USA. These include anatomical waste, cytotoxic waste, waste medicines and waste containing Transmissible Spongiform Encephalopathies (TSE) material.

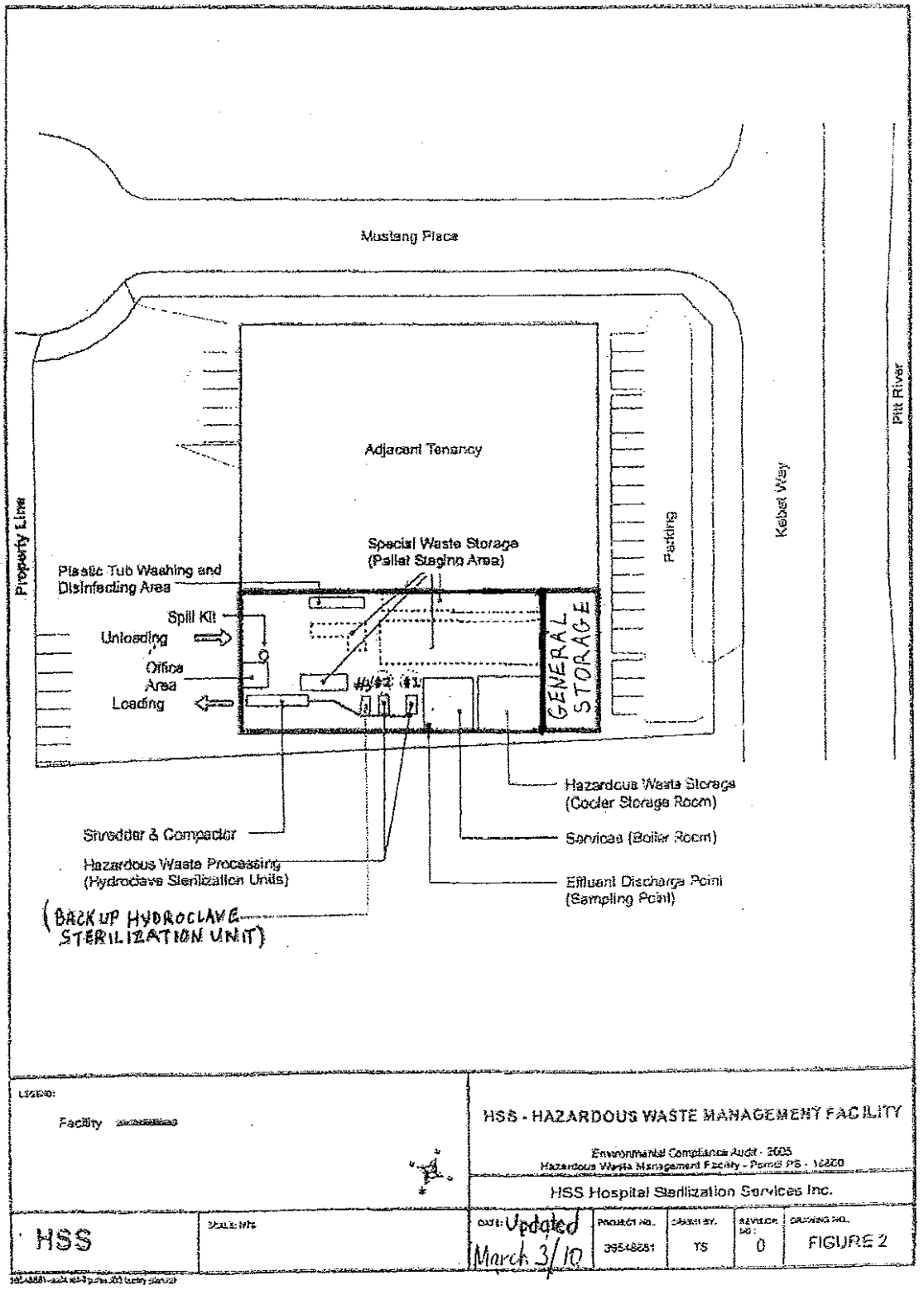
The person signing below certifies that the above information is complete and accurate.

Richard Haynes, Vice-President, Operations & Business Development
Print name of HSS Hospital Sterilization Services Inc. representative

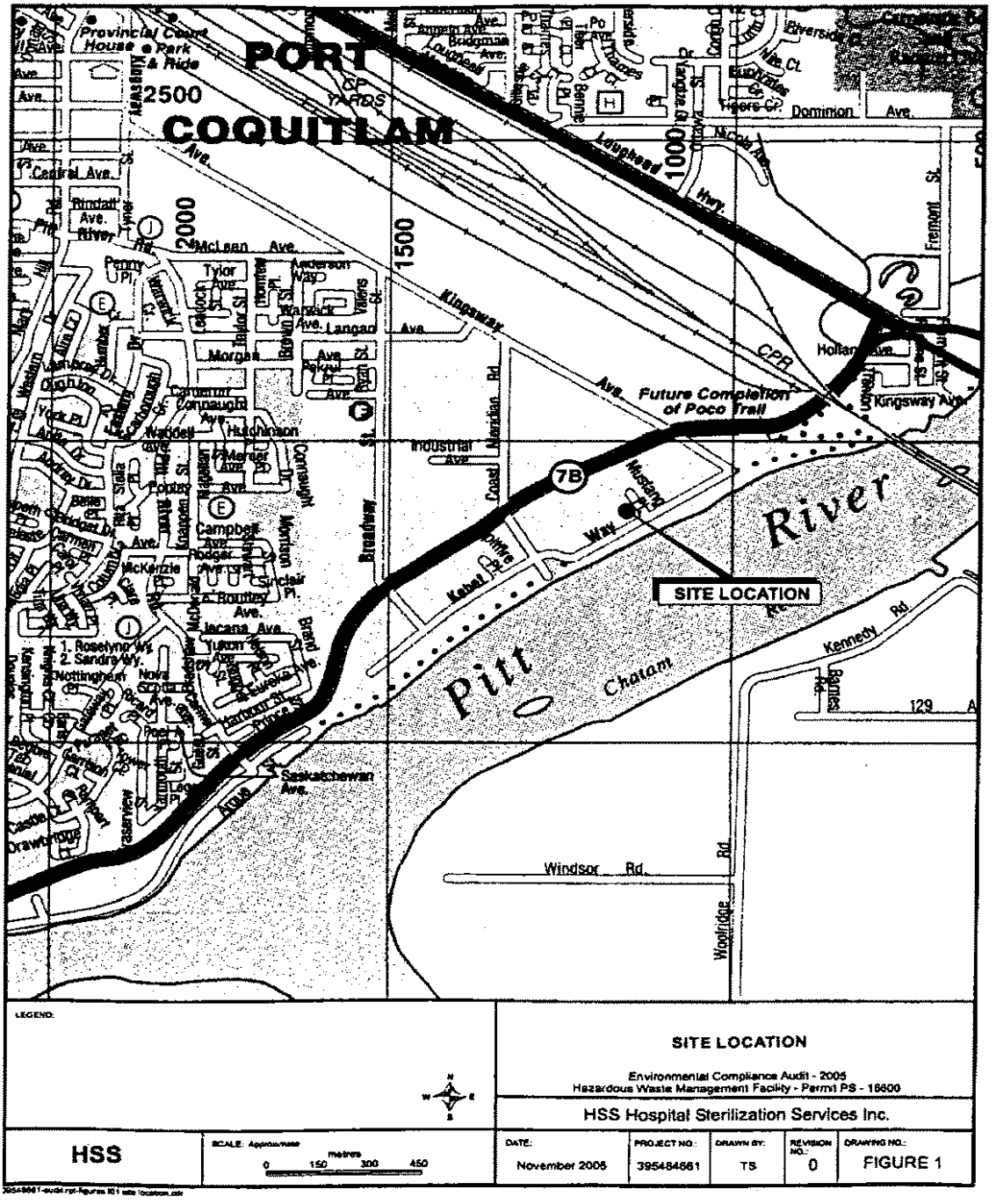
Signature of HSS Hospital Sterilization Services Inc. representative

Sept. 24, 2009
Date

RS-16600 APPENDIX B



RS-16600 APPENDIX B



RS-16600 APPENDIX C

From the HSS Operations Manual, the protocols for the handling of material known to contain or suspected of being contaminated with CJD, VCJD or classed as Specified Risk materials:

All waste material suspected of being contaminated with CJD, vCJD or BSE must be incinerated and classified as UN3373 (WASTE, BIOLOGICAL, SUBSTANCE, CATEGORY B).

All of the general instructions regarding biomedical waste handling and packing apply. Facilities may have both liquid material and solid material. When "CJD" waste is received, it should be stored separately from the anatomical and cytotoxic waste in the refrigerator.

Liquid material

This may include formalin, xylene, and alcohol from the pathology laboratories contaminated with small portions of tissue from biopsy specimens:

- Liquids should be double pailed, that is the initial collection container is placed inside a larger sturdy plastic container with gasket lid. **Using a double pail system was the agreement made with the Ministry of Environment for containment of this material.**
- Recommended colour for the outer container is a white container with red gasket lid. Label container with the "CJD" label supplied by Stericycle.

Non-liquid material

Dry material, e.g. items from the Operating Room, are double bagged and packaged in a cardboard box (✓ human anatomical) or packaged in a red path waste container:

- Line cardboard box with two red liners. Place items in the lined box and tie off the liners separately, then seal box.
- On the box, check off (✓) anatomical waste and label with the "CJD" label provided by Stericycle.

Pick up arrangements

- The generator is asked to call the Stericycle plant, 48 hours in advance, of the pick up that will include "CJD" material.
- The pick up is booked and a separate manifest is prepared with the hospital name written on the top of the manifest outside the border.

- Ship as WASTE, BIOLOGICAL SUBSTANCE, CATEGORY B, UN3373. Following the shipping name, include this information: "Material may be contaminated with CJD".
- The manifest is forwarded to the driver, along with the "CJD" labels for the container and the waste is collected on the scheduled day. The waste is kept in the cooler before transport to the biomedical waste incinerator.

Disposal

- When the material is ready for shipment, Stericycle staff will notify the staff at the biomedical waste incinerator of delivery date
- The CJD waste is shipped on a separate manifest, along with other biomedical waste.

Identification of generator

Stericycle is named as consignor/generator so that CANUTEC can be used for Emergency Response but the manifest should show the name and address of the generator. This should be recorded on the top of the manifest outside the border.

Label:

WASTE, BIOLOGICAL SUBSTANCE,
CATEGORY B
"Material may be contaminated with CJD"

Revised August 2009

4.3.8 Disposal Procedure for Specified Risk Materials (SRM)

Bovine Spongiform Encephalopathy (BSE) is the disease that can occur in cattle. BSE is caused by prions that can concentrate in certain tissue that are known as specified risk material (SRM). The Canadian Food Inspection Agency (CFIA) requires that SRM be identified and appropriately managed until disposal All waste material suspected of being contaminated with SRM must be incinerated and classified as UN3373 (WASTE, BIOLOGICAL SUBSTANCE, CATEGORY B).

The following general instructions regarding waste handling and packing apply.

Only use containers that meet TDG criteria or as provided by Stericycle.
All containers must have category identified.
All liners must be tied off to prevent release of material.
Record weight and label. All weights are in kilograms.
Attach bar code label so it is visible when containers are stacked.

Packaging

The SRM waste must be packed at source as follows:

- Use the 30 gallon plastic drum with gasket lid provided by Stericycle. Line the drum with two red liners, place items in the drum and add dye to the material.
- Tie off the liners separately then seal the drum.
- Apply the SRM/MRS label and the barcode label provided by Stericycle to the drum.
- Stericycle will provide a separate movement document (manifest) so chain of custody is maintained. Ship as. WASTE, BIOLOGICAL SUBSTANCE, CATEGORY B, UN3373.
- Call the Stericycle plant to advise that next pick up will include SRM material. Please give 5 days notice.

Collection:

- Stericycle provides the drum, lid, bar code label and SRM label to the generator.
- The drums are packed and dye added by the generator. The date of staining and the name of the dye used must be provided in writing to Stericycle at the time of pickup.
- The drums are sealed for pick up by the generator.
- Stericycle to be given 5 days notice of a SRM shipment.
- The Stericycle driver will bring a movement document (manifest) at the time of pick up.
- The drums are loaded into the back of the truck and secured for transport. The truck is enclosed and is locked except when being loaded or unloaded.
- The drum is received at the Stericycle plant and is weighed and stored in the refrigerated storage that is kept locked except during loading/unloading times.
- The drum will then be loaded onto the sub-contractor's truck for transport to Wainwright, Alberta, or Washington, USA. The truck is an enclosed trailer that is kept locked except during loading/unloading. The trip is direct with no other collection points.

- The sub-contractor must have a CFIA permit to transport SRM material and the driver must be certified for the transport of dangerous goods (TDG).

Records

The carriers must maintain for 10 years the following records for each day on which SRM is removed:

- Name and address of the facility and the date of collection.
- The total weight of drums containing SRM.
- The date and manner in which the SRM were destroyed.
- The date staining was done and the name of the dye used to identify the SRM. This information to be provided by the generator who does the staining.

Tracking

- The Stericycle driver returns to the plant and unloads the drum so that the bar code label can be scanned and the container weighed.
- Containers are scanned again when shipped.
- Copies of the waste manifest forms are distributed to the appropriate parties, Stericycle's copies are retained for 10 years.
- The waste will be incinerated at a CFIA permitted facility located in Wainwright, Alberta, or Washington, USA, using the parameters set by CFIA. A certificate of destruction will be received confirming that the waste has been properly destroyed.

Label

Specified Risk Material (SRM/MRS)
WASTE, BIOLOGICAL SUBSTANCE,
CATEGORY B
24 Telephone Number is 613-996-6666
(CANUTEC)

Revised May 2009