



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

September 7, 2011

Via Facsimile

Mr. Frank J.M. ten Brink
Chief Financial Officer
Stericycle, Inc.
28161 North Keith Drive
Lake Forest, IL 60045

**Re: Stericycle, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2010
Filed February 28, 2011
File No. 000-21229**

Dear Mr. ten Brink:

We have reviewed your response letter dated August 15, 2011 and have the following comments.

Form 10-K for the Fiscal Year Ended December 31, 2010

Item 8. Financial Statements and Supplementary Data

Note 16 – Products and Services and Geographic Information, page 58

1. We appreciate the information you have provided to us concerning the different services you provide. We also understand your view that you believe that you have a common infrastructure and customer base. However, please provide us with a more comprehensive analysis which includes an assessment of each revenue source by type. For example, where it may be appropriate to combine Medical Waste, Steri-Safe Services, and Sharps Systems, it is unclear to us how distinct the other services might be, such as Pharma Waste Clinical, Non-Biohazardous Chemical, Clinical Services - Other, Specialty Waste, Retail Sales, and Non-Clinical Services – Other. In addition, please tell us whether your systems make a distinction between Returns Management and Recall Processing.

We also understand your view that the same customer may migrate from Medical Waste Disposal services, based on weight, to the Steri-Safe OSHA Compliance Program which packages the same regulated waste services with some training and education services for a contract subscription fee. We understand that this migration may occur with other services. Please elaborate on each type of service that is subject to multiple classifications and quantify, where known, the extent of such reclassifications, even if approximate.

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In this regard, please tell us why, even if similar services are provided in each classification, that these shifts over time have no meaning. In other words, help us better understand why the migration from a Medical Waste contract, based on weight, to the Steri-Safe Services, has no meaning to an understanding of the changes you experience as a business. It would appear that the trend of classifications could be useful to such an understanding. Please be specific.

Tell us whether you track sales by industry type, and/or customer type. Please be specific.

As noted previously, our concern is based upon your acknowledgement that you offer a broad range of services, and this is noted as your competitive strength, and one of your particular goals is to expand the range of services and products you provide.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to this comment, we may have additional comments.

You may contact Dale Welcome at (202) 551-3865, or me at (202) 551-3689, if you have questions regarding this comment.

Sincerely,

/s/ John Cash, for

John Hartz
Senior Assistant Chief Accountant