

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549-4631

Mail Stop 4631

March 17, 2010

Via U.S. mail and facsimile

Mr. David P. Tusa Executive Vice President and Chief Financial Officer Sharps Compliance Corporation 9220 Kirby Drive, Suite 500 Houston, Texas 77054

RE: Form 10-K for the year ended June 30, 2009
Form 10-Q for the period ended September 30, 2009
Definitive Proxy Statement on Schedule 14A filed October 23, 2009
File No. 1-34269

Dear Mr. Tusa:

We have reviewed your response letter dated March 5, 2010 and have the following additional comments. If you disagree with our comment, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

FORM 10-K FOR THE YEAR ENDED JUNE 30, 2009

General

1. Please amend your Form 10-K for the fiscal year ended June 30, 2009 to reflect your responses to comments 2, 3, 4, 6, 9 and 13 in our letter dated February 12, 2010.

Item 1. Description of Business, page 2

2. We note your response to comment three in our letter dated February 12, 2010, and reissue this comment in its entirety. Please disclose all material terms of the \$40

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million contract entered into with the United States Government; file the contract as an exhibit to the amended Form 10-K as contemplated by Item 601(b)(10)(ii)(B); and disclose the information required by Item 101(h)(4)(vi) of Regulation S-K. In this regard, we note that your analysis does not take into account that the contract represented one-third of your revenues in fiscal 2009. If you believe the contract contains competitively sensitive information, you may file an application for confidential treatment pursuant to Rule 24b-2 under the Exchange Act, which sets forth the exclusive means for obtaining confidential treatment of information contained in a document filed under the Exchange Act. Please also refer to Staff Legal Bulletins No. 1 and 1A, dated February 28, 1997 and July 11, 2001, respectively, which set forth the Division of Corporation Finance's views regarding the proper preparation of a request for confidential treatment.

3. We note your response to comment four in our letter dated February 12, 2010. Please disclose when you must comply with the new environmental regulations and when you will need to cover the additional capital expenditures estimated at \$1.0 million to \$2.5 million.

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Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a supplemental response letter that keys your responses to our comments and provides any requested supplemental information. Detailed letters greatly facilitate our review. Please file your supplemental response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Hagen Ganem, Staff Attorney, at (202) 551-3330 or, in his absence, Andrew Schoeffler, Staff Attorney, at (202) 551-3748 if you have any questions regarding legal matters. Please contact Nudrat Salik, Staff Accountant, at (202) 551-3692 or, in her absence, the undersigned at (202) 551-3769 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Rufus Decker Accounting Branch Chief