



DIVISION OF
CORPORATION FINANCE

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

December 27, 2010

Via Fax & U.S. Mail

Mr. William G. Barker, III
Senior Vice President and Chief Financial Officer
Federal Signal Corporation
1415 West 22nd Street
Oak Brook, IL 60523

**Re: Federal Signal Corporation
Form 10-K for the year ended December 31, 2009
Filed February 26, 2010
File No. 1-6033**

Dear Mr. Barker:

We have reviewed your Form 10-K for the year ended December 31, 2009 and your subsequent periodic filings and have the following comments. Unless otherwise indicated, we think you should revise your future filings in response to these comments. If you disagree, 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 response. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

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.

Please respond to confirm that such comments will be complied with, or, if certain of the comments are deemed inappropriate, advise the staff of your reason. Your response should be submitted in electronic form, under the label "corresp" with a copy to the staff. Please respond within ten (10) business days.

Quarterly Report on Form 10-Q for the quarter ended June 30, 2010
Note 2. Acquisitions

1. We note from the disclosures included in Note 2 that in connection with the acquisitions of Sirit Inc. and VESystems, LLC during 2010, the Company recognized customer relationship intangibles aggregating \$18.0 million and \$9.5 million, respectively which

are being amortized over periods of 18 and 17 years respectively. Please tell us and revise the notes to the Company's financial statements in future filings to explain in further detail how the Company calculated or determined the estimated useful lives associated with the customer relationship intangibles recognized in connection with these acquisitions. As part of your response, you should also explain in detail why management believes these intangible assets will provide the Company with future cash flows for periods of 17 to 18 years. We may have further comment upon review of your response.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations
Federal Signal Technologies, page 28

2. We note from the discussion included on page 28 of MD&A that the decrease in operating income attributable to the Federal Signal Technologies segment is due in part to deferred retention payments from the acquisition of Diamond during 2010. Please tell us and explain in MD&A the nature and terms of the deferred retention payments that have been required in 2010 as a result of the Diamond acquisition. Also, please explain how the Company is accounting for these payments in its consolidated financial statements.
3. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Mr. William G. Barker, III
Federal Signal Corporation
December 27, 2010
Page 3

You may contact me at (202)551-3813 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Linda Cvrkel
Branch Chief