



DIVISION OF
CORPORATION FINANCE

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

June 10, 2010

Via U.S. Mail and Facsimile (203) 416-5188

Charles W. Grinnell, Esq.
Clean Diesel Technologies, Inc.
10 Middle Street, Suite 1100
Bridgeport, Connecticut 06604

**Re: Clean Diesel Technologies, Inc.
Registration Statement on Form S-4
Filed May 14, 2010
File No. 333-166865**

Dear Mr. Grinnell:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Form S-4

General

1. We note your disclosure that Clean Diesel anticipates that before the completion of the distribution of the securities covered by this registration statement, all outstanding shares of Clean Diesel common stock will be combined by a reverse stock split into a lesser number of shares of Clean Diesel common stock in the ratio of 3 to 1. Please revise your financial statements and your disclosures throughout the filing to give retroactive effect to the expected stock split. Doing this in the next amendment will save us substantial review time in future amendments. If your auditors believe that only a "draft" report can be presented, due to a pending future event such as the stock split, they must include in the filing a signed and dated preface to their "draft" report stating the reason for the "draft" report and that they expect to be in a position to issue the report in the form

presented prior to effectiveness. The signed, dated, and unrestricted auditor's report must be included in the filing prior to effectiveness. See Rule 2-02 of Regulation S-X.

2. You disclose that Clean Diesel and CSI have agreed to a merger agreement which will be accounted for as a reverse merger whereby CSI would be considered the accounting acquirer. Please confirm that your accounting will be consistent with the following bullet points:
 - Prior to the date of the reverse acquisition the historical financial statements are required to be those of CSI (the accounting acquirer) and should only include the historical results and operations of CSI;
 - Your capital structure should be retained by the surviving entity. This is done by recasting the equity statement of CSI, the accounting acquirer. Historical stockholder's equity of CSI, prior to the merger date, is retroactively restated for the equivalent number of shares received in the merger. To do this, you should divide the number of shares issued by Clean Diesel to CSI by the number of shares outstanding at CSI immediately prior to the transaction. You then take that ratio and multiply it by the number of shares issued or redeemed in each capital transaction shown in CSI's historical financial statements preceding the date of the transaction. This will naturally also require adjustments to the common stock and APIC columns to appropriately reflect any difference in par value. The number of shares outstanding in your financial statements just prior to the recapitalization transaction is shown as being effectively issued in the transaction on the transaction date; and
 - Subsequent to the date of the reverse acquisition the historical financial statements are required to be those of CSI (the accounting acquirer) and Clean Diesel (the accounting acquiree) on a consolidated basis.
3. Please clarify for us supplementally and throughout your document, including in response to the more specific comments we have issued below, who will receive the merger consideration to be issued by Clean Diesel and in what proportions. To the extent that you intend for any financial advisors or purchasers in CSI's private note offerings to receive shares of Clean Diesel that are registered in this transaction, please explain what consideration you have given to the integration of public and private offerings. Specifically, please note that it is our position that offerings made privately cannot be completed publicly. As a part of your analysis, please tell us:
 - What understanding you have, directly or indirectly with Innovator Capital, Allen & Co., or any other financial advisor regarding its receipt of shares or warrants issued as merger consideration. Clarify whether it is your intention that these shares or warrants (and shares underlying such warrants) are to be covered by this registration statement.

- What is the status of CSI's private note offering currently and at the time that the registration statement was first filed. We also note disclosure that CSI had discussion with potential investors in the proposed interim capital raise as early as April 30, 2010, and that the terms of the notes offered provide for those investors to receive merger consideration. Please also clarify whether it is your intention that these shares are to be covered by this registration statement.
- Whether any officers, directors, shareholders or affiliates of either CSI or Clean Diesel are expected to purchase any of the securities offered by them in the capital raising transactions.

Note that we may have further comments upon review of your response.

4. Please tell us supplementally the status of Clean Diesel's private stock offering currently and at the time the registration statement was filed.
5. As you are registering shares on a post – split basis, and the merger will take place on a post-split basis, you should amend the cover page and disclosures throughout your prospectus regarding the number of shares and warrants to be issued in the merger to consistently present all information, unless otherwise specified, on a post-split basis rather than a pre-split basis.
6. Please ensure that you supply all information currently omitted from the prospectus prior to requesting acceleration.
7. Please note that we may have comments on the legal opinion and other exhibits once they are filed. Please understand that we will need adequate time to review these materials before effectiveness.
8. Please revise to include a preliminary proxy card as an exhibit to the registration statement.
9. Please provide us with board books distributed to a special committee or the board by Ardour Capital Investments, LLC, Marshall & Stevens, Inc. and Houlihan & Smith.
10. It appears that Clean Diesel stockholders are requested to vote on several material matters including an increase in authorized capital, the reverse stock split, and the merger transaction itself that are being presented as a single proposition, according to disclosure on page viii. We believe that these matters should be separately presented on the proxy card pursuant to Rule 14a-4(a)(3). Further, disclosure about each of these proposals should be presented separately in the proxy statement under appropriate headings. Please see Rule 14a-5(a). It is acceptable to condition any one or more of the proposals upon approval of the others, but investors should have the ability to vote separately on them. Note that to the extent proposals are conditioned upon one another, your disclosure

should make this clear. Please see our staff guidance on this subject at www.sec.gov/interp/telephone/phonesupplement5.htm.

Calculation of Registration Fee Table

11. Please tell us supplementally how you arrived at 28,472,538 shares of Clean Diesel to be issued in the merger. We understand from your footnote that this is intended to be a post-split number of shares. However, if shares currently owned are intended to constitute 37% of the shares of the combined company, as suggested in the table on page iii, and if Clean Diesel will have 3,163,614 post-reverse-split shares outstanding after the financings, as suggested on page v, it is unclear why Clean Diesel would issue 28 million shares in the merger. Even if this is a pre-split number of shares, it is not clear why this number of shares would be issued in the merger. Further, these amounts do not appear to be consistent with note 1 to your unaudited pro forma financial statements, which says that Clean Diesel will issue 12,320,982 shares of common stock in the merge. Please reconcile.
12. In note (2) to the fee table, we note that you state that there are 263,101,684 shares of CSI to be exchanged in the merger. In the parenthetical that follows this statement, please specify what number of shares of CSI are already outstanding, the number subject to outstanding options and warrants and the number that you assume will be issued to the convertible note holders.

Letter to stockholders/prospectus cover page

13. As the joint letter to stockholders also serves as a prospectus cover page, please remove information that is repetitive or not required by Item 501 of Regulation S-K or otherwise key to an investment decision. For example, you state that stockholders are being asked to vote in favor of the merger transaction between Clean Diesel and CSI, and then repeat this information in the two paragraphs about each company's stockholder meeting. While the cover page should make clear that the stockholders are voting on the merger transaction and that Clean Diesel's stockholders are also voting on an increase in authorized shares and reverse stock split, you should avoid unnecessarily repeating this information.
14. Please clarify the maximum number of shares that would be issued to existing CSI holders, the purchaser of new CSI convertible notes, and the CSI financial advisor, to the extent that such shares are being registered on this registration statement. If any shares registered on this registration statement and offered by this prospectus are to be issued to any other party, please make that clear on the cover page as well.
15. We believe that the proportional ownership of the combined company by existing Clean Diesel and CSI shareholders may be key to an investment decision. Please make clear that following the merger, existing Clean Diesel stockholders will own approximately 37% of the combined company, existing CSI shareholders will own approximately 16%

of the combined company, and purchasers of new CSI convertible subordinated notes will own approximately 40% of the combined company, all subject to adjustment as more fully described in the prospectus. Please also clarify who will receive the warrants and in what proportion. We may have additional comments upon review of your revised disclosures.

Questions and Answers About the Merger, page ii

16. Please avoid repeating information in your Q&A and Summary sections. If you use a Q&A, it should have a purpose that is distinct from the summary, such as answering questions about the meetings. Summary discussion of the terms of the merger, the merger consideration and adjustments thereto may then be provided in the Summary section.
17. In an appropriate Q&A, please state whether the new shareholders of Clean Diesel and CSI who purchase securities in the private capital raising transactions prior to the merger will be entitled to vote at the meetings.

Q. How many shares of common stock of the combined company . . . , page v

18. Please revise to show your calculations in determining the 2.27 shares of Clean Diesel common stock (post-reverse split) and the warrant to purchase 1.408 shares of Clean Diesel common stock.

Q. What are the material U.S. federal income tax consequences of the Merger to CSI shareholders and warrant holders?, page vii

19. We note your statements regarding tax consequences “if” the merger qualifies as a reorganization under Section 368 of the Internal Revenue Code. Please revise these statements here, under “Material United States Federal Income Tax Consequences of the Merger” on page 65, and throughout your document where they appear to provide a more definitive statement as to qualification of the merger as a reorganization.
20. We note your statement that whether the Merger meets the continuity of interest and control tests depends in large part on the “value of the Clean Diesel common stock issued to CSI shareholders as compared to the value of all consideration issued to CSI shareholders.” Please clarify the meaning of this statement.

Summary, page 1

21. Please ensure that your summary covers each of the matters to be voted upon by Clean Diesel stockholders, and that each is described under its own discrete subheading. In this regard, please amend your summary and your prospectus to ensure that you separately discuss:

- the increase in authorized shares and the reason for it and;
- the reverse stock split and the reason for it.

22. Please discuss your treatment of fractional shares issuable as a result of:

- the reverse stock split, and
- the merger

under an appropriate caption. Please also clarify how the value of fractional shares issuable in either circumstance will be calculated and disclose the source of funds necessary to cash out fractional shares. In addition, please reconcile disclosures that you have made regarding cash payment for fractional shares issuable in the stock split with disclosure on page 134, which states that you will issue a whole share of Clean Diesel common stock in respect of fractional shares.

23. Throughout your Summary, please ensure that you cite correct page numbers for the discussions that follow in the prospectus. Currently, many of these cross references appear to be in error.

The Merger, page 1

24. This section discusses a number of important aspects of the merger, including the companies' intention for the merger consideration to result in CSI's shareholders owning 60% of the combined company (assuming that each company has completed its respective financings), the issuance of shares and warrants to the holders of CSI common stock, CSI Class B common stock, the issuance of shares to CSI's financial advisor, the need to raise additional capital and the adjustments to the merger consideration in respect of each company's cash position. To help guide readers through this complex information, please consider organizing it under additional descriptive subheadings.

Clean Diesel's Reasons for the Merger, page 3

25. We note that Clean Diesel and CSI have net losses. Please explain in the Summary and The Merger sections, why Clean Diesel is pursuing a merger with a company that has a history of losses.

26. Please explain the meaning of the ninth bullet point. In addition, we note that this disclosure does not appear among the reasons for the merger articulated on page 46.

Opinion of the Financial Advisor to the Board of Directors of Clean Diesel, page 6

27. Please tell us, with a view toward disclosure, what services Innovator Capital performed in connection with the shares to be issued to it, the value of which is reflected in note 2 to the pro forma financial statements.

Opinion of Financial Advisor to the Board of Directors of CSI, page 6

28. We note the fees paid to Marshall & Stevens on page 7. Please clarify whether Marshall & Stevens has provided any “services beyond those contemplated,” and if so, please disclose the amount of the fees paid.

Merger Consideration, page 7

29. Please provide more definitive disclosure, based on stated assumptions, as to the allocation of the merger consideration. For example, you should:
- Clarify what classes of common stock of CSI will be exchanged for newly issued shares of Clean Diesel in the merger. We note that you refer to shares “to be designated Class A” and elsewhere in the document, you refer to “Class B” shares. If true, please clarify that the Class A shares are those currently outstanding and the Class B shares are shares underlying the CSI convertible notes.
 - Disclose the terms upon which the convertible notes will be converted into Class B common stock.
 - Explain how you will determine what portion of the merger consideration will be allocated to holders of CSI Class A common and Class B common shares, whether the exchange ratio will be the same for each class of CSI common stock.
 - Provide clear examples of the amount of consideration, including an exchange ratio per share, that CSI Class A and Class B common shareholders will receive assuming that:
 - Both parties’ financing transactions are fully completed
 - CSI’s are completed, but not Clean Diesel’s
 - Clean Diesel’s are completed, but not CSI’s
 - Neither party’s transactions are completed.

These disclosures should be clearly presented so that investors will understand how these amounts are calculated.

30. Please clarify the formula, exercise price and other terms upon which the warrants offered in the merger to any party, including the holders of any class of CSI common

stock, and any financial adviser or other party, will be exercisable for Clean Diesel common stock.

31. We note that Clean Diesel will assume warrants to purchase shares of CSI common stock that are outstanding and not terminated or exercised immediately prior to the effective time of the Merger. Please tell us whether this registration statement covers the shares underlying these warrants, and if not, what consideration you have given to registering those shares. Please also state the number of Clean Diesel shares that would be issuable upon exercise of the warrants assuming that one are terminated or exercised prior to the effective time of the merger.

Conditions to Completion of the Merger, page 8

32. Please briefly summarize the conditions to each party's obligations to complete the merger in this section of the Summary.

Interests of Directors, Executive Officers and Affiliates of CSI & Clean Diesel, page 9

33. We note on page 9 that Innovator Capital will receive a fee for its activities. Please disclose the fees Innovator Capital will receive in connection with this transaction. Please also include this information and Mr. Park's fees in connection with Innovator Capital in the "Certain Relationships and Related Transactions" section.

Risk Factors, page 15

Risks Relating to Clean Diesel's Business, page 21

Risks Relating to CSI's Business, page 27

34. Please revise and refrain from using qualifying or limiting statements in the introductory paragraph, such as statements that the risk factors are not intended to represent a complete list of general or specific risk factors, references to other risks that you do not currently deem material or of which you are currently unaware. In view of the requirements of Item 503(c) of Regulation S-K, such qualifications and limitations are inappropriate. Your risk factor disclosure should address all of the material risks that you face. If you do not deem risks material, you should not make reference to them.

The market price of Clean Diesel common stock could decline as a result of the large number of shares that will become eligible for sale after consummation of the Merger, page 14

35. Please disclose whether there are any lock up agreements or other agreements, indicating that management, directors and financial advisors cannot sell their shares until sometime after the merger.

Clean Diesel and CSI may be required to effect the Merger even though the combined company will not have cash resources sufficient for its needs, page 15

36. We note disclosure that the condition to closing that each company has at least \$1 million cash position prior to the effective time of the merger may be waived. Please disclose whether Clean Diesel or CSI plans to waive this condition or any other condition to the merger.

If the effective time of the merger is later than June 30, 2010 . . . , page 15

37. Please elaborate on how the date of the merger (June 30 or later) impacts the adjustments to the merger consideration. We understood that the adjustments to the merger consideration are made based upon the extent to which the parties are able to complete their financings prior to the effective time of the merger.

CSI's current shareholders will own a large percentage of the Clean Diesel common stock after consummation of the Merger . . . , page 16

38. Based on disclosures in your filing, it appears that CSI's *current* shareholders will own only 16% of the combined company's common stock, and that investors in CSI's capital raising transaction to be carried out prior to the merger will own 40% of the combined company's common stock. Please revise the subheading of this risk factor and the disclosure as necessary to accurately reflect which shareholders will be in a position to significantly influence the outcome of corporate actions after the merger.

The Merger may not qualify as a reorganization . . . , page 19

39. You must provide investors with a definitive statement of tax consequences. Unless there is significant doubt about the tax consequences due to a lack of legal authority or other extenuating circumstances, it is not appropriate to include the uncertainty of tax treatment as a risk factor. Therefore, please remove this risk factor.

The representations and warranties contained in the Merger Agreement were made solely for purposes of the contract . . . , page 21

40. Please remove this risk factor. The representations and warranties contained in the merger agreement are disclosure for purposes of the federal securities laws and the parties' liabilities thereunder. It is not appropriate to suggest to investors that they should not rely on disclosure. You are responsible for providing such additional disclosures as may be necessary to make the statements in the merger agreement not misleading and to avoid any material omissions.

Unaudited Pro Forma Condensed Combined Financial Data, page 33

41. Please present a pro forma balance sheet as of March 31, 2010 instead of December 31, 2009. See Rule 11-02(c)(1) of Regulation S-X.
42. Please also present a pro forma statement of operations for the quarter ended March 31, 2010. See Rule 11-02(c)(2) of Regulation S-X.
43. It is not clear how you have complied with Item 3(f) of Part I.A of the Form S-4. Please address the following:
 - Please present the historical per share amounts, which should include the book value per share, cash dividends declared per share, and income (loss) per share from continuing operations, for each entity;
 - Please clearly indicate which amounts represent the equivalent pro forma per share amounts. We remind you that you should present equivalent pro forma book value per share, equivalent pro forma cash dividends per share, and equivalent pro forma income (loss) per share from continuing operations; and
 - Please clearly disclose how you are calculating the equivalent pro forma per share amounts, including the exchange ratios used.

Unaudited Pro Forma Condensed Combined Balance Sheet, page 34

44. Please revise the face of the pro forma balance sheet to show the number of shares authorized, issued and outstanding on a historical and pro forma basis. If you do not yet know what the pro forma amounts are, please revise the description of the common stock line item in your next amendment and include blanks for these amounts.

Unaudited Pro Forma Condensed Combined Statements of Operations, page 35

45. Please present on the face of your pro forma statement of operations historical and pro forma basic and diluted per share data. See Rule 11-02(b)(7) of Regulation S-X.

Notes to Unaudited Pro Forma Condensed Combined Financial Data, page 36

Note 4 – Pro Forma Adjustments, page 37

46. Please further enhance your disclosure to show precisely how you arrived at each adjustment amount in your notes to the pro forma financial information. This note should include a discussion of any significant assumptions and estimates used to arrive at these amounts. For example, you should show the calculation you used to arrive at the adjustment amounts to record additional depreciation and amortization expense by showing a breakdown of the intangible assets and related amounts and corresponding useful lives.

Note 5 – Pro Forma Loss Per Share, page 38

47. The paragraph between the two tables on page 60 indicates that Clean Diesel will issue 14,236,269 common shares in the absence of any adjustment. However, that figure does not seem consistent with the number of shares to be issued according to the table on page 38. Please explain the differences between these disclosures or revise accordingly.

The Merger, page 42

48. We note your disclosure on page F-4 that you filed no patent applications during 2009. Clean Diesel's consolidated statements of operations on page F-43 indicates that you had minimal technology licensing fee revenue in 2009 as compared to prior years. Please revise your filing to more clearly explain the specific aspects of the global retrofit market that you intend to focus on, how you intend to use your existing patents to meet the needs of that market and if you intend to file new patent applications as you pursue this new market.
49. We note your statement that the engagement of Innovator Capital was approved by a "committee of independent directors" of Clean Diesel, but the activities of the independent committee are not otherwise discussed. Please discuss the formation of this committee, including when it was formed, the purpose for which it was formed, what duties it performed, which of the directors served on this committee, and why they were selected to do so.
50. Please elaborate on why the independent committee selected Innovator Capital. Please also disclose Innovator Capital's of providing services to the company and the compensation it has received from the company for past services.
51. Please discuss Clean Diesel's engagement of Ardour and CSI's engagement of Marshall & Stevens to provide fairness opinions in connection with the merger. Your discussion in response to this comment should disclose when each of these advisors was selected and why, given that:
- Clean Diesel was already being advised by Innovator Capital with regard to the merger, and on December 16 had approved the engagement of Houlihan and Smith to complete an enterprise value study of both Clean Diesel and CSI; and
 - CSI was already being advised by Allen & Company.
52. In this regard, please also clarify whether Innovator Capital, Houlihan and Smith or Allen & Company made any recommendation to either party as to the preferred terms of the transaction or whether the respective boards should approve the transaction.

53. We note that on November 5, 2009 Clean Diesel was interested in exploring CSI's willingness to sell the ECS business alone. Please disclose whether this option was explored further and if not, why it was not pursued.
54. Please disclose whether any alternative companies or transactions were considered by either Clean Diesel or CSI. In this regard, we note disclosure on page 47 that Clean Diesel considered risks associated with "several strategic alternatives". Please ensure you that you discuss any material alternatives that Clean Diesel considered and these risks that were associated with them.
55. Please revise to provide more detailed information for the reasons Innovator Capital Limited was chosen to advise the company on merger and acquisition activities and capital raising efforts, including whether other firms were considered.
56. We note that on January 15, 2010, Houlihan and Smith provided a valuation study to Clean Diesel. Please include information pursuant to Item 1015(b) of Regulation M-A. Please also elaborate on how Clean Diesel's board used this information in negotiating the transaction, approving it and recommending it to shareholders. Please also file as an exhibit the consent of Houlihan and Smith to the inclusion of its valuation in the registration statement and to being named in the registration statement.
57. Please elaborate on the "underlying details behind the CSI audited financials" that Messrs. Gray and de Havilland discussed with CSI executives on April 6. Clarify whether these details were communicated to the entire Clean Diesel board.
58. We note that on April 19, Clean Diesel had a formal board call during which the Board discussed the status of the transaction and also terminated the employment of Ms. Ruple and hiring of a new interim CFO. Please explain whether replacement of the CFO was related to the merger transaction or the Board's consideration of it.
59. We note that on May 10, 2010, the day prior to the meeting at which Clean Diesel's board approved the merger, John de Havilland resigned from the board. Please tell us, with a view toward disclosure, whether his resignation was because of a disagreement with Clean Diesel on any matter relating to the company's operations, policies or practices, including in connection with the merger transaction or its approval. If so, please describe the circumstances you believe contributed to Mr. de Havilland's resignation. Also tell us supplementally whether Mr. de Havilland furnished any written correspondence concerning the circumstances surrounding his resignation. Note that any such correspondence should be filed with an amendment to the 8-K reporting his resignation. In this regard, please see all of the requirements of Item 5.02 of Form 8-K and tell us supplementally how you have complied.
60. Please revise to provide additional details regarding material developments at the meetings held between January 21st and May 13th with respect to the amount of consideration, termination fees and other material terms of the merger agreement. Please

clearly revise to include a detailed explanation of the significant factors, assumptions, and methodologies used in determining the amount of consideration that was ultimately determined.

61. Please also discuss Clean Diesel's decision to increase the authorized shares of the company and engage in the reverse stock split, as completion of the merger appears to be contingent upon approval and execution of these items. Please also discuss what consideration the board gave to the Houlihan and Smith valuations (\$14.7 for Clean Diesel and \$14.2 for CSI) in determining to give CSI shareholders 60% of the combined company in the merger.

Clean Diesel's Reasons for the Merger; Recommendation of Clean Diesel's Board of Directors, page 46

62. Where the board's reasons for approving the merger are based upon its belief or expectation as to future performance of the combined company (such as, for example, in the first through fourth bullet points), please elaborate on the bases for these beliefs and expectations.
63. Please clarify what the board considered with respect to disparity in relative market capitalizations of the companies, and the other items listed in the twelfth bullet point, that caused them to believe that they are not reflective of actual values of the two companies and why this supports the board's decision to approve the transaction.
64. Disclose whether or not the Board considered the valuations performed by Houlihan and Smith in approving the transaction and if so, whether the valuations supported or detracted from the advisability of the merger.
65. In the final paragraph of this section, please clarify that the discussion includes all of the material favorable and unfavorable factors the Clean Diesel board considered in approving the merger.

The CSI Reasons for the Merger, page 49

66. Where the board's reasons for approving the merger are based upon its belief or expectation as to future performance of the combined company (such as, for example, in the fourth, fifth, eighth and tenth bullet points), please elaborate on the bases for these beliefs and expectations.

Opinion of the Financial Advisor of Clean Diesel, page 50

67. Please provide all of the information about Adour Capital that is required by Item 1015(b) of Regulation M-A, including Ardour's qualifications, the method of selection of Ardour and material relationships between Ardour, any of its affiliates and Clean Diesel and any of its affiliates.

68. In the discussion of the discounted cash flow valuation, please clarify what the discount rate is intended to represent. For example, is it intended to represent the company's cost of capital?
69. Please explain why Ardour Capital believed that it was appropriate to use such divergent discount rates for the two companies.
70. We note disclosure on page 55 that "None of the analysts involved nor any officer or director of Marshall & Stevens has any financial interest in CSI or Clean Diesel." Please revise to disclose whether any of Ardour Capital's analysts, officers or directors has any financial interest in CSI or Clean Diesel.

Discounted Cash Flow Valuation, page 52

71. Please revise to explain why only two years projections were provided for CSI. Please also revise to explain the specific factors considered in determining the 70% discount rate for Clean Diesel compared to the 40% discount rate for CSI.

Discounted Cash Flow Assumptions, page 53

72. We note per the cash flow statements on page F-7 that CSI had capital expenditures of \$629,000 in 2009 and \$1.8 million in 2008. Please revise your filing to explain why CSI capital expenditure projections were not available for Ardour Capital's comparable company analysis.

Opinion of the Financial Advisor to the Board of Directors of CSI, page 54

73. Please provide all of the information required by Item 1015(b)(6) of Regulation M-A, including the actual findings derived from each analysis performed by Marshall & Stevens and methods of arriving at such findings.

Interests of Clean Diesel Directors and Executive Officers in the Merger, page 57

74. We note that Mr. Asmussen's employment agreement provides for a change of control bonus equal to one year's base salary in the event of a change in control of the Company approved in advance by the Board. If the Merger will constitute a change of control contemplated by the employment agreement, then please discuss the change of control bonus payable to Mr. Asmussen in this section.

Material United States Federal Income Tax Consequences of the Merger, page 65

75. Please file a tax opinion from counsel or a PCAOB registered independent public accounting firm regarding the representation that these transactions are tax free. This information is material to investors and counsel or an accountant must provide this opinion. See Item 601(b)(8) of Regulation S-K.

76. We note your disclosure that the summary on beginning on page 65 does not purport to “address all federal income tax consequences”. Disclaimers of this type are inconsistent with the requirement that all material information be provided in your registration statement. Please revise.

The Merger Agreement, page 68

77. The disclaimers regarding information contained in the merger agreement are inappropriate. In particular, statements that the Merger Agreement is not intended to be factual information about any of the parties and should not be relied upon are inappropriate. Please remove or revise the second sentence of the second paragraph, and the third and final sentences of the third paragraph accordingly. Note that we will not object to your statement that the representations and warranties are intended to allocate risks among the parties. In addition, your disclosure should make clear that the information in the merger agreement should be considered together with all of the disclosure in the proxy statement/prospectus. Please also note that you must include any disclosures in your proxy statement/prospectus and the reports you file with the SEC that are necessary to make the statements made in the merger agreement not misleading. Please confirm your understanding.
78. Please supplementally provide us a list briefly identifying the contents of all omitted schedules or similar supplements to the Agreement and Plan of Merger, filed as Annex A and an agreement to furnish supplementally a copy of any omitted schedule to the Staff upon request pursuant to Item 601(b)(2) of Regulation S-K.

Determination of Shares of Clean Diesel Common Stock, page 69

79. Portions of this disclosure appear to have been copied directly from the merger agreement and rely heavily on defined terms. Note that this is not consistent with plain English principles. Please revise to describe in clear, plain language what common stockholders and warrant holders will receive on a per share basis in the merger. Please clearly explain the difference between the Class A merger consideration and Class B merger consideration. Please also clearly describe the sensitivity of the consideration to changes in the cash positions of Clean Diesel and CSI. The disclosure is technical and confusing. Please consider providing an illustrative example.

CSI Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 96

Critical Accounting Policies and Estimates, page 97

Impairment of Long-Lived Assets Other Than Goodwill, page 99

80. We note your disclosure on page F-15 that an impairment charge of \$4.9 million was recorded during 2008 for some of your property, plant and equipment due to projected

cash flows not being able to support the asset base. In light of your continued losses and negative operating cash flows, we believe your disclosures about the impairment of long-lived assets other than goodwill could be enhanced. Please disclose when you last tested your long-lived assets for impairment. To the extent that any of your long-lived assets or asset groups have estimated fair values that are not substantially in excess of the carrying values and to the extent that the asset amounts, in the aggregate or individually, could materially impact your operating results or total stockholder's equity, please provide the following disclosures:

- The percentage by which fair value exceeds the carrying value as of your most recent impairment test;
- A description of the assumptions that drive the estimated fair value;
- A discussion of the uncertainty associated with the key assumptions. For example, to the extent that you have included assumptions in your discounted cash flow model that materially deviates from your historical results, please include a discussion of these assumptions; and
- A discussion of any potential events and/or circumstances that could have a negative effect to the estimated fair value.

If you have determined that the estimated fair value substantially exceeds the carrying value for all of your long-lived assets or asset groups, please disclose this determination. Please refer to Item 303 of Regulation S-K and Sections 216 and 501.14 of the SEC's Codification of Financial Reporting Policies for guidance.

Results of Operations, page 102

81. When multiple factors contribute to fluctuations in a single financial statement line item, please separately quantify the impact of each factor. You should also ensure that you are explaining the majority of increases or decreases in each line item. For example, it is unclear how significantly your heavy duty diesel systems segment was favorably impacted by the increased spending as a result of the Stimulus Bill. It is also unclear how significantly you expect this funding to impact your results in 2010. This is not meant to be an all-inclusive list of where improvements could be made to expand your explanations. Please revise your MD&A accordingly to separately quantify the specific reasons for fluctuations between all periods presented wherever possible.

Liquidity and Capital Resources, page 105

82. Please further enhance your disclosures to discuss significant changes in your expected sources and uses of cash from period to period and the impact of these changes on your liquidity and capital resources. We note that CSI's debt service obligations and projected operating costs for 2010 exceed the cash balance as of December 31, 2009. Your ability

to continue as a going concern is contingent upon alternatives to recapitalize, including the sale of CSI stock and/or a sale of CSI's assets, while negotiating with lenders to modify loan terms in order to delay repayments while alternative capital is secured. Considering these factors, please expand your liquidity discussion to address in more detail the following:

- The cost control measures you have implemented;
- The sale of the assets of Applied Utility Systems and sale of intellectual property and potential future asset sales;
- The impact that reduced capital expenditures may have on your liquidity and continuing operational effectiveness; and
- The impact of the potential remedies that lenders may avail themselves of if you are unable to obtain financing.

Management Following the Merger, page 110

83. Please include biographical sketches for each person who will serve as a director of the company after the merger. See Item 18(a)(7) of Form S-4. We note that you have not provided biographical information for Mr. Gray or Mr. Park in this section.

Directors of the Combined Company, page 110

84. For those individuals named in the proxy statement/prospectus to become directors after the acquisition, please file the consents required by Rule 438 of the Securities Act of 1933.

Agreements with Executive Officers Following the Merger, page 114

85. Please consider including a tabular presentation of the potential payments upon employment termination and change of control events for each named executive officer so that investors may better understand the information. Please include total columns and dollar amounts in such tables.

Principal Effects of the Reverse Stock Split, page 133

86. Please revise to include specific information on the stock split, including the present number of shares outstanding, the increased number of shares of authorized common stock, the number of shares outstanding prior to the reverse stock split and the number of shares anticipated to be outstanding after the reverse stock split.

Where You Can Find More Information, page 145

87. We note that you incorporate your Form 10-K and other reports by reference, and appear to have prepared your registration statement to provide information about Clean Diesel in accordance with Items 10 and 11 or 12 and 13 of the Form. However, please note that you may provide information in accordance with these items only if you meet the aggregate market value requirement of General Instruction I.B.1. of Form S-3. In this regard, please see General Instruction B.1.a. to Form S-4. As you do not appear to meet this public float requirement, please include information about Clean Diesel pursuant to Item 14 of Form S-4, and refrain from incorporating your reports by reference.

Financial Statements of Catalytic Solutions, Inc.

General

88. Please include interim financial statements for the period ended March 31, 2010. Please similarly update your financial information throughout the filing. See Rule 8-08 of Regulation S-X.

89. You disclose on page 97 that CSI accrues estimated warranty expenses concurrent with the shipment of product. As such, please enhance your disclosure to present a summary of the warranty liability activity for each period presented. Refer to FASB ASC 460-10-50-8.

90. It is unclear from your disclosures whether you have any financial assets and/or liabilities that you measured at fair value as of December 31, 2009 in accordance with FASB ASC 820-10. If you do have any financial assets and/or liabilities that you measured at fair value as of December 31, 2009, please help us understand how you have met the disclosure requirements set forth in FASB ASC 820-10-50. Please revise or advise.

Note 2 – Summary of Significant Accounting Policies, page F-9

General

91. Please disclose the types of expenses that you include in the cost of revenues line item and the types of expenses that you include in the sales and marketing and general and administrative expenses line items. Please also disclose whether you include inbound freight charges, purchasing and receiving costs, inspection costs, warehousing costs, internal transfer costs, and the other costs of your distribution network in the cost of revenues line item. With the exception of warehousing costs, if you currently exclude a portion of these costs from cost of revenues, please disclose:

- in a footnote the line items that these excluded costs are included in and the amounts included in each line item for each period presented; and

- in MD&A that your gross margins may not be comparable to those of other entities, since some entities include all of the costs related to their distribution network in cost of revenues and others like you exclude a portion of them from gross margin, including them instead in a line item such as general and administrative expenses.

92. Please disclose the line item(s) in which you include depreciation and amortization. If you do not allocate a portion of your depreciation and amortization to cost of revenues, please also revise your presentation to comply with SAB Topic 11:B, which would include revising the cost of revenues title and removing the gross profit subtotal throughout the filing.

Inventories, page F-10

93. It appears from your disclosures on page 30 that your inventory may include precious metals such as platinum. If true, please revise your accounting policy disclosure or your footnote on page F-14 to quantify the significance of precious metals to your total inventory as of each period presented and to disclose the extent to which your accounting policies for precious metals inventory differs from your accounting policies for other types of inventory.

Note 9 – Commitments and Contingencies, page F-18

94. Please disclose how you account for (a) step rent provisions and escalation clauses and (b) capital improvement funding and other lease concessions, which may be present in your leases. Lease payments that depend on an existing index or rate, such as the consumer price index or the prime interest rate, should also be included in your minimum lease payments. If, as we assume, they are taken into account in computing your minimum lease payments and the minimum lease payments are recognized on a straight-line basis over the minimum lease term, the note should so state. If our assumption is incorrect, please tell us how your accounting complies with FASB ASC 840.

95. Please also disclose the gross amount of assets recorded under capital leases, as well as the future minimum lease payments in the aggregate and for each of the five succeeding fiscal years. See FASB ASC 840-30-50.

Note 18 – Legal Proceedings, page F-24

96. With respect to each of the legal proceedings that CSI is currently involved in, please confirm there is not a reasonable possibility that a loss exceeding amounts already recognized may have been incurred. If there is a reasonable possibility and the amount of that loss is material, please disclose the estimated additional loss, or range of loss, or state that such an estimate cannot be made as required by FASB ASC 450-20-50-3 and 450-20-50-4.

Exhibits

97. Please revise to include all of the exhibits pursuant to Item 601 including the articles of incorporation, by-laws and subsidiaries of the registrant. To the extent that you already have these materials on file with the Commission, you may incorporate by reference in accordance with Item 411(d) of Regulation S-K.
98. We note that the consent of Ardour Capital Investments, LLC is not dated. Please revise to include a dated consent.

Form 10-K for the period ended December 31, 2009

Item 9A. Controls and Procedures, page 66

99. We note that you neither included an attestation report nor a statement disclosing that an attestation report is not included. It appears that in future filings, you will be required to provide the attestation report. However, if this is not the case, please ensure that you comply with the Item requirement as then in effect, for example, by including disclosure that the attestation report is not required, as applicable, pursuant to the Instruction to Item 308T of Regulation S-K.
100. In future filings, please file the certifications exactly as set forth in Item 601(b)(31) of Regulation S-K. Specifically, we note that section 4(d) was revised to state “the registrant’s fourth fiscal quarter of 2009” instead of “the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report).”

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 the information the Securities Act of 1933 and all applicable Securities Act rules require. 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Jeff Gordon, Staff Accountant at (202) 551-3866 or Lisa Haynes, Senior Accountant at (202) 551-3424 if you have questions regarding comments on the financial statements and related matters. Please contact Sherry Haywood, Staff Attorney at (202) 551-3345 or me at (202) 551-3760 with any other questions.

Sincerely,

Pamela Long
Assistant Director