



DIVISION OF
CORPORATION FINANCE

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

December 9, 2011

Via E-mail

Richard Rutkowski
Chief Executive Officer
ClearSign Combustion Corporation
12870 Interurban Avenue South
Seattle, Washington 98168

**Re: ClearSign Combustion Corporation
Registration Statement on Form S-1
Filed November 14, 2011
File No. 333-177946**

Dear Mr. Rutkowski:

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.

Public Offering Prospectus Cover Page

1. We note your cover page includes the "subject to completion" legend but does not indicate that a price range will be included in the event a preliminary prospectus is circulated. Please confirm that any preliminary prospectus you circulate will include all non-Rule 430A information. This includes the price range and related information based on a *bona fide* estimate of the public offering price within that range, and other information that was left blank throughout the document. Also note that we may have additional comments after you file this information.
2. Here and elsewhere in your document, as appropriate, please include a brief description of the concurrent selling stockholder offering. Also disclose how the price of the shares being offered by the selling stockholders differs from the price of the shares you are offering in this underwritten offering.

3. Please revise the cover page to disclose your relationship with MDB Capital Group and its affiliates. Please also revise to disclose on the cover page the dollar amount and percentage of the net proceeds of the offering that will be paid to or for the benefit of the underwriters and/or their affiliates.

Graphics, page i and back cover

4. We note the significant amount of text in your graphics and that much of that text is already contained elsewhere in your prospectus. You may use text on the inside cover page *only* to the extent necessary to explain briefly the visuals in the presentation. Please revise accordingly.
5. The use of the photographs in your graphics is not appropriate for your level of product development. While we note that you do not have revenues at this time, readers may be left with the impression that products you are selling or trying to sell are being shown in the photographs. Please revise accordingly.

Special Note Regarding Forward Looking Statements, page iii

6. Please move this section to a later section of your prospectus rather than prior to the summary and the risk factors.

About ClearSign Combustion Corporation, page 1

7. We note your brief summary. The summary should be a balanced presentation of your business that presents the key aspects of the offering and your business. Please expand your disclosure here and elsewhere as appropriate to explain the status of your technology and that you have not yet developed products based on your technology. Also highlight that your financial statements have been prepared on the basis that you will continue as a going concern and that there is substantial doubt about your ability to continue as a going concern. Please quantify your net losses in the past two fiscal years and any interim periods, and indicate the amount of your accumulated deficit.
8. We note your statements in the first paragraph that you “design, develop and market” technologies. As you have not yet introduced a product, please remove “market” from this list.

Our Industry, page 1

9. We note the statements in this paragraph about the “trillions” in capital assets and that operators invest “billions” in installing, maintaining and upgrading these systems. We further note your disclosure in the “Our Target Markets” section on page 3. It is unclear why you have implied that these markets are your addressable markets, as it appears your potential products would only be applicable to a subset of these markets. Please revise or

advise. Also, please provide us independent objective support for the statement on page 1 regarding world total energy consumption and on page 3 regarding the size of your addressable market.

Our Proprietary Technology, page 2

10. We note your statement that you believe your platform “may increase energy, and improve fuel flexibility and environmental performance for most types of industrial and commercial combustion systems.” Please revise your disclosure to clearly identify the specific basis for your belief, and clarify the products or technology against which you are comparing your platform. If you have not yet developed a product that has been objectively tested with statistically significant results, it is unclear why you believe it is appropriate to make these claims in your document.

Intellectual Property, page 3

11. Please revise your disclosure so that investors can understand the nature of your intellectual property. In this regard, please clarify the terms “prior art” and “reduction to practice” by using concrete, every day terms. Also, your disclosure here should be balanced in describing the limitations of your current intellectual property and its protections. Please revise accordingly.

Prototypes and Experimental Data, page 3

12. We note your vague disclosure about having “designed and/or built several prototype systems” and that you have conducted “numerous” and “repeated” experiments. Please expand and revise your disclosure to provide more specific disclosure about your prototypes and experimental data. Also avoid marketing jargon such as “will be a rapid path to commercialization and a robust product pipeline.”

Partners, page 4

13. Please disclose the extent of your current agreements with potential partners. If you have not commenced seeking out such partners, please clearly state that fact here.

The Offering, page 5

14. Tell us where you have provided disclosure pursuant to Item 505(a) of Regulation S-K.
15. We note you state the proceeds are to be used for “working capital and general corporate purposes,” yet on page 36 you state that the “proceeds received from this offering are expected to be used in our efforts related to research and development, protection of our intellectual property, and exploration of market opportunities.” Please reconcile and revise as necessary to state clearly the intended uses of proceeds.

System Results, page 21

16. Please expand your disclosure to identify the basis for the results in the photographs provided in your prospectus. For example, if these photographs were taken during the course of your experiments, please disclose how many experiments were run and how often the observed results occurred.
17. We note your disclosure in the first paragraph on page 24. It is unclear why you believe it is appropriate to include the disclosure in the first paragraph on page 24 regarding the “favorable” response of “subject matter experts” and “positive results” of potential customers to your “selective presentations” of the data obtained from the experiments you conducted without providing significant additional disclosure about the nature and scope of the experiments conducted, the presentations given, how you found the subject matter experts and the criteria you used to identify them as such, and other important contextual information. Please advise or revise.

Research and Development Plan, page 24

18. We note your discussion of where your R&D efforts are to be focused in the future. Please expand your disclosure to describe in details the steps required to complete the sequence described in the four bullet points and the anticipated costs associated with completing each bullet point.

Product Roadmap and Path to Commercialization, page 25

19. We note you describe your technology in marketing terms, such as your statements that your technology “easily and cost-effectively” combines with pollution control and promises “to improve the reliability of existing systems while lowering operating costs and energy use.” Please revise to avoid the use of marketing terms.

Competition and Barriers to Entry, page 36

20. We note you have only described the shortcomings of your competitors’ offerings. Please expand to describe the benefits your competitors’ products compared to your technology. Also, please expand your disclosure to disclose that your competitors have greater financial resources and market share than you do.

Competitive Advantage, page 36

21. Please provide independent, objective support for your statements in this section regarding the advantages of your technology. For example, we note your statements that your technology has the potential to deliver “discernable and measurable advantages as compared to currently available technology.” We also note your statements in the bullet points on page 37.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 40

Liquidity and Capital Resources, page 42

22. We note that you are a development stage company and there is substantial doubt regarding your ability to continue as a going concern. Please expand to describe your plan of operations, including the expected timeframe and funding requirements to develop your technology and products and the expected source of your funding requirements. Please also disclose the dollar amount of financing you believe is required to continue your business over the next twelve months. For further guidance, refer to Section IV.A. of Securities Act Release 33-8350 "Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations."

Technical Advisors, page 48

23. Please expand your description of the role of the technical advisors for whom you provide biographical information here. Also expand your discussion of the compensation of these advisors, including cash, stock, and/or options issued to date, and clarify how compensation is determined. Indicate whether you have any agreements with these advisors, including compensation agreements.

Current and Future Compensation Practices, page 51

24. While you state that currently, your compensation program is only for cash, we note you state that during 2011 you "implemented a compensation program" of base salary and stock. Please expand your disclosure to describe this program in detail, including the compensation to be paid and how that compensation was determined.
25. We note you state in setting compensation, you look at salaries paid to others in business similar to yours. Please identify those businesses and tell how the compensation you paid compares to the other businesses' compensation.
26. We note you state that you may pay bonuses in the future for achievement of agreed upon targets. Please tell us whether those targets have been set and, if so, why you have not disclosed them.

Capitalization, page 64

27. Please remove cash and cash equivalents from the Capitalization table on page 64 since this is not a component of capitalization.

Unaudited Financial Statements for the Quarter Ended June 30, 2011

28. Please update the financial statements as required by Article 8-08 of Regulation S-X.

Note 4. Stockholder's Equity/(Deficit), page F-17

29. We note that you issued 109,091 and 101,818 shares of common stock as part of issuance costs. Please clarify where this is reflected in the Statement of Changes in Stockholder's Equity/(Deficit).

Selling Security Holder Prospectus Cover, page II-2

30. Note that Schedule A, paragraph 16 of the Securities Act and Item 501(b)(3) of Regulation S-K require that you disclose the price at which the securities will be sold. Given the lack of an established market for your securities, a statement that selling stockholders will sell "at prevailing market prices" is insufficient to satisfy your disclosure obligation. Please disclose the fixed price you intend to sell the shares listed in this prospectus. We will not object if you disclose that the securities will be sold at the disclosed fixed price until your shares are listed on the NASDAQ and thereafter at prevailing market prices or privately negotiated prices.

Selling Security Holder Table, page II-6

31. Please tell us whether any of the selling shareholders are broker-dealers or affiliates of broker-dealers. A selling stockholder who is an affiliate of a broker-dealer must be identified in the prospectus as an underwriter unless the prospectus states, if true, that: the selling shareholder purchased the shares being registered for resale in the ordinary course of business, and at the time of the purchase, the selling shareholder had no agreements or understandings, directly or indirectly, with any person to distribute the securities. Please revise as appropriate.

Exhibits

32. Please file all exhibits with your next amendment. We may have further comment after reviewing those exhibits.

33. To the extent there is a delay in requesting effectiveness of your registration statement, or there is any change, other than typographical, made to the financial statements, or there have been intervening events since the prior filing that are material to the company, please provide a currently dated and signed consent from your independent accountants with the next amendment.

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

Richard Rutkowski
ClearSign Combustion Corporation
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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 Praveen Kartholy at 202-551-3778 or Brian Cascio, Accounting Branch Chief, at 202-551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at 202-551-3637 or Mary Beth Breslin at 202-551-3625 with any other questions.

Sincerely,

/s/ Mary Beth Breslin for

Amanda Ravitz
Assistant Director

cc (via e-mail): Kevin Friedmann