

December 1, 2023

Wensheng Fan
Chief Executive Officer
Spectral AI, Inc.
2515 McKinney Avenue, Suite 1000
Dallas, Texas 75201

Re: Spectral AI, Inc.
Amendment No. 1 to
Filed November 21,
File No. 333-275218

Registration Statement on Form S-1
2023

Dear Wensheng Fan:

We have conducted a limited review of your registration statement and have the following comments.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe a comment applies 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 this letter, we may have additional comments.

Amendment No. 1 to Registration Statement on Form S-1

Cover Page

1. Please revise your cover page and elsewhere in the registration statement to disclose the price that the selling securityholders paid for the 566,667 shares of common stock being registered for resale.
2. Here and in your risk factor and MD&A sections and elsewhere where you address your recent trading prices as compared to the warrant exercise price, please revise to clarify that your warrants are out the money and it is unlikely that warrant holders would exercise their warrants while the trading price is below the warrant exercise price. Disclose that cash proceeds associated with the exercises of the warrants are dependent on the stock price. As applicable, describe the impact on your liquidity and update the discussion on the ability of your company to fund your operations on a prospective basis with your current cash on hand.

Wensheng Fan
Spectral AI, Inc.
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Management's Discussion and Analysis of Financial Condition and Results of Operations, page 59

3. We note that the projected Spectral revenues for 2023 were \$31.3 million, as set forth in the prospective financial information prepared by Spectral's management and provided to the RCLF Board in connection with the evaluation of the Business Combination. We also note that your actual revenues for the nine months ended September 30, 2023 was approximately \$12.8 million. It appears that you will miss your 2023 revenue projection. Please update your disclosure in Liquidity and Capital Resources, and

elsewhere, to provide updated information about your financial position and further risks to your business operations and liquidity in light of these circumstances.
Company Overview, page 70

4. In light of the significant number of redemptions and the unlikelihood that the company will receive significant proceeds from exercises of the warrants because of the disparity between the exercise price of the warrants and the current trading price of the common stock, expand your discussion of capital resources to address any changes in the company's liquidity position since the business combination. If the company is likely to have to seek additional capital, discuss the effect of this offering on the company's ability to raise additional capital.

5. Please expand your discussion here to reflect the fact that this offering involves the potential sale of a substantial portion of shares for resale and discuss how such sales could impact the market price of the company's common stock. We refer to your disclosure on page 1, 52.

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FirstName LastName

Wensheng Fan

FirstName

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Inc.

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FirstName LastName

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Juan Grana at 202-551-6034 or Jane Park at 202-551-7439 with any other questions.

Sincerely,

Division of

Office of Industrial

Services

Corporation Finance

Applications and

cc: Lynwood E. Reinhardt, Esq.