

Spectral AI, Inc.
2515 McKinney Avenue.
Suite 1000
Dallas, Texas 75201

December 19, 2023

VIA EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
Office of Energy & Transportation
100 F Street, N.E.
Washington, D.C. 20549
Attn: Juan Grana

Re: Spectral AI, Inc.
Registration Statement on Form S-1
File No. 333-275218

Dear Mr. Grana:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, SPECTRAL AI, INC., a Delaware corporation, hereby respectfully requests that the effective date of the above-captioned registration statement on Form S-1 (the "**Registration Statement**") be accelerated so that the Registration Statement will become effective at 4:00 p.m., Eastern Time, on December 21, 2023, or as soon as practicable thereafter.

Please contact Lynwood E. Reinhardt (LReinhardt@reedsmith.com / telephone: (469) 680-4220) of Reed Smith LLP with any questions and please notify when this request for acceleration has been granted.

[Signature Page Follows]

Sincerely,

By: /s/ Wensheng Fan

Name: Wensheng Fan

Title: Chief Executive Officer

cc: Lynwood E. Reinhardt, Herbert Kozlov, Reed Smith LLP