

April 18, 2024

James Walker
Chief Executive Officer
Nano Nuclear Energy Inc.
1411 Broadway, 38th Floor
New York, NY 10018

Inc.

Registration Statement on Form S-1
2024

Re: Nano Nuclear Energy
Amendment No. 1 to
Filed April 10,
File No. 333-278076

Dear James Walker:

We have reviewed your amended 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. Unless we note otherwise, any references to prior comments are to comments in our April 4, 2024 letter.

Amendment No. 1 to Registration Statement on Form S-1
Prospectus Summary, page 5

1. We note your response to prior comment 1. Given your revised disclosure that as part of the license for a patent related to devices and systems used for Halaeu transportation you agreed to pay BEA royalties as well as certain licensing payments and meet specific performance milestones within the first 48 months of the agreement's effective date, and given that this license provides the basis for your Fuel Transportation Business, which you hope to have in operation by 2026 and prior to your Micro Nuclear Reactor Business and Fuel Fabrication Business, please provide a more detailed analysis supporting your response that this agreement was entered in the ordinary course and is not a contract upon which your business is substantially dependent. Alternatively, please file the agreement as an exhibit to your registration and revise to ensure all material terms of the licensing agreement are disclosed in the prospectus.

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Exhibits

2. Please file a revised legal opinion as Exhibit 5.1 to include the specific number of securities being registered by the registration statement as well as the maximum aggregate offering price consistent with the prospectus cover page.

General

3. We note your response to prior comment 10 and reissue the comment. We note that the filing fee table included as Exhibit 107 reflects that you are relying on Rule 457(o). Please revise the "Proposed Maximum Aggregate Offering Price" column to reflect the maximum offering price that you disclose in the prospectus for all offered securities or advise. In that regard, we note you disclose that you anticipate that the initial public offering price of your common stock could be up to \$6.00 per share. Please contact Joseph Klinko at 202-551-3824 or Karl Hiller at 202-551-3686 if you have questions regarding comments on the financial statements and related matters. Please contact Cheryl Brown at 202-551-3905 or Karina Dorin at 202-551-3763 with any other questions.

FirstName LastNameJames Walker
Corporation Finance
Comapany NameNano Nuclear Energy Inc.
Transportation
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cc: Lawrence A. Rosenbloom, Esq.
FirstName LastName

Sincerely,
Division of
Office of Energy &