

April 4, 2024

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

Inc.

Statement on Form S-1
2024

Re: Nano Nuclear Energy
Registration
Filed March 19,
File No. 333-278076

Dear James Walker:

We have reviewed 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.

Registration Statement on Form S-1

Prospectus Summary
Overview, page 1

1. We note disclosure here and elsewhere that you expect to receive an exclusive license for a high capacity HALEU fuel transportation basket design in the first quarter of 2024. Given that the first quarter of 2024 has passed, please update these disclosures. If such licensing agreement has been received, please revise to disclose all material terms in the prospectus and file the agreement as an exhibit to the registration statement, or tell us why you believe it is not required to be filed.

James Walker
FirstName LastNameJames
Nano Nuclear Energy Inc. Walker
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FirstName LastName
Capitalization, page 33

2. We note your disclosure regarding the issuance and sale of 822,146 shares of your common stock at a price of \$3.00 per share. As it appears that you had received some proceeds associated with this transaction in the form of stock subscriptions prior to December 31, 2023, please expand your disclosure to clarify the extent to which the effects of this transaction are shown in the actual, pro forma, and pro forma as adjusted columns.

3. Please revise as necessary to reconcile your disclosure indicating the number of common shares that will be outstanding upon completion of the offering is 26,007,015 shares, with

the corresponding disclosure on page 8, indicating there will be 29,007,015 shares of

common stock outstanding at that point in time.

4. Please expand your description of the pro forma as adjusted amounts to quantify the

underwriting discounts and estimated offering expenses that are

reflected in your

adjustment, also to include your rationale for the apparent

reclassification of the

mezzanine equity shares and balances.

Dilution, page 34

5. We note that you appear to have included prepaid expenses in your computations of the

historical and pro forma historical net tangible book values and that

you do not provide

details sufficient to understand how you have calculated the

corresponding per share

amounts. Please revise these calculations as necessary to exclude

non-tangible assets and

to clarify how the shares being utilized reconcile to those reported

on page F-4.

Business

Description of Properties, page 58

6. We note you disclose that you lease office space from Flewber Global, Inc., a related

party, for \$10,000 a month. However, Exhibit 10.12 indicates that such

office space is

leased for \$5,000 per month. Please advise or revise.

Executive and Director Compensation

Summary Compensation Table, page 72

7. Please revise to disclose the compensation items tabulated in the "All Other

Compensation" column. See Item 402(n)(2)(ix) of Regulation S-K.

Financial Statements, page F-1

8. Please address the labeling inconsistency regarding the company name on page F-3.

James Walker

FirstName LastNameJames

Nano Nuclear Energy Inc. Walker

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Exhibits

Exhibit 23.1 - Consent of Independent Registered Public Accounting Firm, page

II-3

9. Please obtain and file an updated consent from the auditor that does not include the

Additional Guidance and Practice Points.

General

10. We note your 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.

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 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.

Corporation Finance

& Transportation

cc: Lawrence A. Rosenbloom, Esq.

Sincerely,

Division of

Office of Energy