

**Nano Nuclear Energy Inc.
10 Times Square, 30th Floor
New York, New York 10018**

VIA EDGAR

April 10, 2024

U.S. Securities and Exchange Commission
Division of Corporation Finance
Office of Energy & Transportation
100 F Street, NE
Washington, D.C. 20549

Attention: Joseph Klinko
Karl Hiller
Cheryl Brown
Karina Dorin

**Re: Nano Nuclear Energy Inc.
Registration Statement on Form S-1
Filed March 19, 2024
File No. 333-278076**

Ladies and Gentlemen:

Nano Nuclear Energy Inc. (the “**Company**,” “**we**,” “**our**” or “**us**”) hereby transmits the Company’s responses to the comment letter received from the staff (the “**Staff**”) of the U.S. Securities and Exchange Commission (the “**Commission**”) on April 4, 2024, relating to the Company’s Registration Statement on Form S-1, filed by the Company with the Commission on March 19, 2024 (the “**Registration Statement**”). For the Staff’s convenience, we have repeated below the Staff’s comments in bold and have followed each comment with the Company’s response.

Concurrently with the submission of this response letter, the Company is filing Amendment No.1 to the Registration Statement (“**Amendment No.1**”) via the EDGAR system. Amendment No.1 contains revised disclosure based on the Staff’s comments as noted below as well as additional updating disclosures and new exhibits. The Staff is also supplementally advised that references to the put right held by a Company investor have been removed as the subscription agreement with such investor was amended on March 30, 2024 to remove such put right.

Registration Statement on Form S-1
Prospectus Summary
Overview, page 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.**

Response: The Staff is advised that the Company received the license in question in early April 2024. We have revised our disclosures under the “*Prospectus Summary*” section on pages 1 and 5, the “*Risk Factor*” section on pages 15 and 19, the “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” section on page 37, the “*Business*” section on pages 41, 51 and 55, of Amendment No.1 accordingly. The Staff is further advised that the material terms of the license agreement are also disclosed under the “*Prospectus Summary*” section on page 5 and the “*Business*” section on pages 51 and 55, of Amendment No.1.

The Staff is further advised that while we consider the existence of this license to be material to investors, we do not consider the license a “material contract” that requires filing as an exhibit to the Registration Statement. Our view in this regard is based on our analysis of the licensing agreement in accordance with section (b)(10) of Item 601 of Regulation S-K in that (i) a license for this type of technology ordinarily accompanies the kind of business conducted by the Company, (ii) the license is not a contract upon which our business is substantially dependent, as the license relates to only one of four proposed business lines of the Company, and (iii) we expect to develop our own intellectual property relating to our nuclear fuel transportation business as this business concept progresses over time.

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.

Response: In response to the Staff's comment, we have revised our disclosures under the "*Capitalization*" section on page 33 of Amendment No.1.

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.

Response: In response to the Staff's comment, we have revised our disclosures under the "*Capitalization*" section on page 33 of Amendment No.1.

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.

Response: In response to the Staff's comment, we have revised our disclosures under the "*Capitalization*" section on page 33 of Amendment No.1.

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.

Response: In response to the Staff's comment, we have revised our disclosures under the "*Dilution*" section on pages 34 and 35 of Amendment No.1.

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.

Response: In response to the Staff's comment, we have revised our disclosures under the "*Business - Description of Properties*" section on page 58 of Amendment No.1. We respectfully advise the Staff that such office space from Flewber Global, Inc. is currently leased for \$10,000 per month as disclosed in the Lease Amendment Agreement to the Lease Agreement dated September 1, 2022, which was filed as part of Exhibit 10.12 to the Registration Statement filed on March 19, 2024.

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.**

Response: In response to the Staff’s comment, we have revised our disclosures under the “*Executive and Director Compensation*” section on page 72 of Amendment No.1.

Financial Statements, page F-1

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

Response: In response to the Staff’s comment, we have revised our disclosures under the “*Financial Statements*” section on page F-3 of Amendment No.1.

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.**

Response: In response to the Staff’s comment, we have filed an updated consent letter from the auditor as an exhibit to Amendment No.1.

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.**

Response: In response to the Staff’s comment, we respectfully advise the Staff that, utilizing Rule 457(o), we have calculated the registration fee based on the proposed maximum offering price of \$17,250,000 (comprised of a \$15,000,000 offering plus \$2,250,000 for the underwriters’ over-allotment option). We believe this was properly reflected in Exhibit 107 to the Registration Statement filed on March 19, 2024.

We thank the Staff for its review of this response. Should you have any questions or require any additional information, please do not hesitate to contact our legal counsel, Lawrence A. Rosenbloom, Esq. of Ellenoff Grossman & Schole LLP, at lrosenbloom@egsllp.com or by telephone at (212) 370-1300.

Very truly yours,

NANO NUCLEAR ENERGY INC.

By: /s/ James Walker

Name: James Walker

Title: Chief Executive Officer

cc: Lawrence A. Rosenbloom, Esq.