

Nano Nuclear Energy Inc.  
10 Times Square, 30<sup>th</sup> Floor  
New York, New York 10018

VIA EDGAR

April 23, 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.**  
**Amendment No. 1 to Registration Statement on Form S-1**  
**Filed April 10, 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 18, 2024, relating to the Company’s Amendment No. 1 to Registration Statement on Form S-1, filed by the Company with the Commission on April 10, 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.2 to the Registration Statement (“**Amendment No.2**”) via the EDGAR system. Amendment No.2 contains revised disclosure based on the Staff’s comments as noted below (including an updated exhibit 10.17) as well as additional updating disclosures.

**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.**

**Response:** In response to the Staff's comment, while we do not necessarily agree that the license agreement with BAE is a "material contract" as defined in Rule 601(b)(10) of Regulation S-K in that (i) the Company's business is not *substantially dependent* on the license (emphasis added) and (ii) the license is not one on which the Company's business *depends to a material* extent (emphasis added), we acknowledge that the license (which is associated with only one of four business lines of the Company) is overall material. Therefore, we have revised our disclosures to include additional information regarding the license under the "Prospectus Summary" section on page 5, and "Business" section on pages 51 and 55 of Amendment No. 2 to provide additional disclosures regarding this license agreement to investors.

With respect to filing the license agreement as an exhibit to Amendment No. 2, and as discussed by our legal counsel with the Staff, we respectfully advise the Staff that we are unable to file the license agreement given its "Official Use Only" (OUO) designation. This means that given the sensitive nature of the license agreement, we are precluded from filing it as an exhibit in its current form, even redacted. OUO pertains to documentation that, although not classified, could lead to potential damage to governmental, commercial, or private interests if released publicly. OUO designation is determined by applicable government agency policy (in this case the Department of Energy). We believe that the inclusion of additional details regarding the license agreement in Amendment No. 2 as noted above should strike a balance between the need to provide appropriate information to investors and the Company's obligations to its government commercial partner.

**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.**

**Response:** We kindly direct your attention to our response concerning Comment 3 below addressing the maximum dollar value of shares of common stock being offered. The Staff is reminded that the 5.1 legal opinion filed as an exhibit to Amendment No. 1 covers such maximum dollar value. We hereby confirm that in the event of an increase in the maximum dollar value, a revised 5.1 legal opinion covering the securities subject to such increase will be filed promptly.

**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.**

**Response:** In response to the Staff's comment and in accordance with the discussions between our counsel and the Staff regarding this matter, and taking into consideration the provisions of Rule 457(o) and the maximum dollar value of \$15 million of firm shares being registered in this offering, we hereby confirm that if the Company elects to sell shares of common stock in the offering at a price greater than \$5.00, the Company will either (i) offer and sell less than the 3 million shares of common stock reflected in the current preliminary prospectus such that the maximum dollar value of shares of common stock in the offering will not exceed \$15 million or (ii) register, and pay an additional registration fee for, an appropriate additional dollar value of shares of common stock offered to reflect the increased offering price.

\*\*\*\*\*

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.