

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

☐ Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

☐ Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan for the purchase or sale of equity securities of the issuer that is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). See Instruction 10.

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL	
OMB Number:	3235-0287
Estimated average burden hours per response:	0.5

1. Name and Address of Reporting Person* <u>Walker James John</u> (Last) (First) (Middle) <u>10 TIMES SQUARE,</u> <u>30TH FLOOR</u> (Street) <u>NEW YORK</u> <u>NY</u> <u>10018</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Nano Nuclear Energy Inc.</u> [<u>NNE</u>] Foreign Trading Symbol	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) ☒ Director 10% Owner ☒ Officer (give title below) Other (specify below) <u>Chief Executive Officer</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>06/03/2026</u>	
	4. If Amendment, Date of Original Filed (Month/Day/Year) <u>06/05/2026</u>	6. Individual or Joint/Group Filing (Check Applicable Line) ☒ Form filed by One Reporting Person Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	06/03/2026		M ⁽¹⁾		200,000 ⁽¹⁾⁽⁴⁾	A	\$3	780,000 ⁽²⁾⁽⁴⁾	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Stock Options ⁽¹⁾	\$3	06/03/2026		M		200,000 ⁽¹⁾⁽⁴⁾	(1)	(1)	Common Stock	200,000 ⁽¹⁾⁽⁴⁾	\$0	300,000 ⁽³⁾⁽⁴⁾	D	

Explanation of Responses:

1. Represents shares of common stock issued upon exercise of certain options originally granted to the reporting person at the exercise price of \$3.00 per share, which were fully vested and exercisable on June 7, 2023, with expiry on June 7, 2026. On June 3, 2026, such options were exercised.
2. This number does not reflect subsequent sales of the 123,688 shares of common stock reported in the Form 4 originally filed on June 5, 2026.
3. Represents options granted on March 13, 2025 ("Grant Date") under the Issuer's 2023 Stock Option Plan #2 to purchase an aggregate of 300,000 shares of common stock, par value \$0.0001 per share of the Issuer. The options shall vest and become exercisable on the Grant Date immediately. The options are valid for 10 years from the Grant Date and will expire on March 13, 2035.
4. This Form 4/A is being filed solely to amend the Form 4 originally filed by the reporting person on June 5, 2026 to reflect (i) the 200,000 shares of common stock acquired by such reporting person upon exercise of 200,000 options and 780,000 shares of common stock beneficially owned following such option exercise under Columns 3, 4, and 5 of Table I; and (ii) the 200,000 options exercised by such reporting person and the 300,000 options owned following such option exercise under Columns 5, 7 and 9 of Table II. As of the date of this report, the reporting person holds 685,000 shares of common stock, and 300,000 options, of the Issuer, respectively.

/s/ James John Walker

08/26/2026

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.