UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1
TO
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

EMCORE CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

New Jersey (State or other jurisdiction of incorporation or organization) 22-2746503 (I.R.S. Employer Identification Number)

450 Clark Drive Budd Lake, NJ 07828 (626) 293-3400

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Thomas P. Minichiello Chief Financial Officer EMCORE Corporation 450 Clark Drive Budd Lake, NJ 07828 (626) 293-3400

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

James J. Masetti
Davina K. Kaile, Esq.
Pillsbury Winthrop Shaw Pittman LLP
2550 Hanover Street
Palo Alto, CA 94304-1115
Telephone: (650) 233-4500

Approximate date of commencement of proposed sale to the public: This post-effective amendment is being filed to deregister the unsold securities previously registered under this Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box."

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box."

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer " Accelerated filer " Non-accelerated filer x Smaller reporting company x Emerging growth company company x

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

DEREGISTRATION OF SECURITIES

This Post-Effective Amendment No. 1 (the "Post-Effective Amendment") relates to the Registration Statement on Form S-3 (No. 333-281141) of EMCORE Corporation, a New Jersey corporation (the "Registrant"), which was originally filed with the Securities and Exchange Commission on July 31, 2024 and declared effective on August 9, 2024 (the "Registration Statement"). The Registration Statement was filed with respect to the offer and resale by the selling shareholder named therein from time to time of up to 1,810,528 shares of the Registrant's common stock, no par value ("Common Stock").

On February 28, 2025, pursuant to that certain Agreement and Plan of Merger, dated as of November 7, 2024, by and among the Registrant, Velocity One Holdings, LP, a Delaware limited partnership ("Parent"), Aerosphere Power Inc., a New Jersey corporation and indirect wholly owned subsidiary of Parent, and Velocity Merger Sub, Inc., a New Jersey corporation and indirect wholly owned subsidiary of Parent ("Merger Sub"), Merger Sub merged with and into the Registrant (the "Merger"), with the Registrant continuing as the surviving corporation and as an indirect wholly owned subsidiary of Parent.

As a result of the Merger and in connection with the delisting and the deregistration of the Registrant's securities under Section 12(b) of the Securities Exchange Act of 1934, as amended, the Registrant is terminating all offerings of its securities pursuant to its existing registration statements under the Securities Act of 1933, as amended, including the Registration Statement. Pursuant to the undertaking made by the Registrant in the Registration Statement to remove from registration by means of a post-effective amendment any of the securities that had been registered that remain unsold at the termination of the offering, the Registrant is filing this Post-Effective Amendment to terminate the effectiveness of such Registration Statement and to deregister, as of the effectiveness of this Post-Effective Amendment, any and all shares of Common Stock registered thereunder that remain unsold as of the effectiveness date. Upon the effectiveness of this Post-Effective Amendment, no shares of Common Stock will remain registered for resale pursuant to the Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Post-Effective Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Budd Lake, State of New Jersey, on February 28, 2025.

EMCORE CORPORATION

By: /s/ Matthew Vargas
Matthew Vargas
Interim Chief Executive Officer