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

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of September 2026

Commission File Number 001-40924

ALGOMA STEEL GROUP INC.
(Exact name of Registrant as specified in its charter)

N/A
(Translation of Registrant's name into English)

105 West Street
Sault Ste. Marie, Ontario
P6A 7B4, Canada
(705) 945-2351
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F ☐ Form 40-F ☒

EXHIBIT INDEX

Exhibit Number	Description
99.1	Press release dated September 2, 2026.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Algoma Steel Group Inc.

Date: September 2, 2026	By:	/s/ John Naccarato
		Name: John Naccarato
		Title: Vice President Strategy and Chief Legal Officer

Building Better Lives and a Greener Future

MEDIA RELEASE
September 2, 2026

Algoma Steel Group Inc. Provides Update on Lake Superior Power Plant Outage

SAULT STE. MARIE, ONTARIO (September 2, 2026) – Algoma Steel Group Inc. (NASDAQ: ASTL; TSX: ASTL) ("Algoma" or "the Company"), a leading Canadian producer of steel plate and hot-rolled sheet products, today provided an update regarding the previously announced unplanned outage at its Lake Superior Power ("LSP") generating facility.

Since the Company's August 17, 2026 update, Algoma has worked closely with the Independent Electricity System Operator ("IESO") to implement interim operating arrangements that have enabled the Company to resume electric arc furnace ("EAF") production from August 29, 2026 while the affected LSP turbine remains unavailable. The Company is currently maintaining sustained production under these arrangements, including through certain planned work on the provincial electricity system. The Company is currently producing and shipping steel within the parameters of these interim arrangements. The IESO is reviewing upcoming planned power system outages, with the objective of minimizing potential interruptions to the Company's steelmaking operations while maintaining the safety and reliability of the provincial electricity system.

Algoma is pursuing multiple alternatives intended to restore full LSP generating capacity as quickly as possible. These include the repair and return to service of the affected turbine and securing a replacement turbine. The Company is working with GE and other parties to advance these alternatives in parallel and determine the most effective and timely path to restore full LSP generating capacity.

The Company continues to assess the potential impact on production and shipments while actively advancing several mitigation options. The extent of any impact will depend on the timing and implementation of these measures, which are expected to reduce the potential production impact.

Cautionary Statement Regarding Forward-Looking Statements

This news release contains "forward-looking information" under applicable Canadian securities legislation and "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 (collectively, "forward-looking statements"), including statements regarding the unplanned outage at the Lake Superior Power (LSP) facility and the alternatives being pursued to restore full LSP generating capacity, Algoma's transition to EAF steelmaking and the expected benefits thereof, and the Company's strategy, plans or future financial or operating performance. These forward-looking statements generally are identified by the words "believe," "project," "expect," "anticipate," "estimate," "intend," "strategy," "future," "opportunity," "plan," "may," "should," "will," "would," "will be," "will continue," "will likely result," and similar expressions. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions. Many factors could cause actual future events to differ materially from the forward-looking statements in this document, including those set forth in “Risk Factors” and “Cautionary Note Regarding Forward-Looking Information” in Algoma’s Annual Information Form, filed under the Company’s SEDAR+ profile at www.sedarplus.ca and with the SEC as part of Algoma’s Annual Report on Form 40-F at www.sec.gov. Forward-looking statements speak only as of the date they are made. Algoma assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise.

About Algoma Steel

Based in Sault Ste. Marie, Ontario, Algoma is a leading Canadian producer of high-quality plate and sheet steel products, proudly supporting critical sectors including energy, defence, automotive, shipbuilding, and infrastructure. Guided by a purpose to build better lives and a greener future, Algoma is shaping the next generation of sustainable steelmaking in Canada.

With the transition to electric arc furnace (EAF) steelmaking and a modernized plate mill, Algoma is redefining how steel is made in Canada. Powered by Ontario’s clean electricity grid, this transformation represents one of the largest industrial decarbonization initiatives in North America and is expected to reduce carbon emissions by approximately 70% once fully transitioned. These advancements provide stability for continued investment in diversification projects aligned with Canada’s evolving needs.

This new chapter also introduces Volta™, the brand for all steel produced through Algoma’s EAF technology. Volta delivers the same trusted performance customers rely on, with significantly lower emissions—produced safely, sustainably, and proudly in Canada.

Building on more than a century of steelmaking expertise, Algoma continues to invest in its people, processes, and technologies to strengthen domestic supply chains and deliver responsible, Canadian-made steel that helps build a better tomorrow.

For more information, please contact:

Michael Moraca
Chief Financial Officer
Algoma Steel Group Inc.
Phone: 705.945.3300
E-mail: IR@algoma.com