

June 4, 2024

VIA EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance
Office of Industrial Applications and Services
100 F Street NE
Washington, D.C. 20549
Attn: Robert Augustin and Katherine Bagley

Re: LanzaTech Global, Inc.
Registration Statement on Form S-3
Filed May 9, 2024
File No. 333-279239

Dear Mr. Augustin and Ms. Bagley:

On behalf of our client, LanzaTech Global, Inc. (the “Company” or “LanzaTech”), we are writing to submit the Company’s responses to the comments of the staff of the Division of Corporation Finance (the “Staff”) of the United States Securities and Exchange Commission (the “Commission”) contained in the Staff’s letter dated May 23, 2024 (the “Comment Letter”), with respect to the above-referenced Registration Statement on Form S-3, filed on May 9, 2024 (the “Registration Statement”).

For ease of reference, each comment contained in the Comment Letter is printed below in bold and is followed by the Company’s response. Capitalized terms used but not defined herein have the meanings set forth in the Registration Statement.

Registration Statement on Form S-3, filed May 9, 2024

General

- 1. We note that your Form S-3 includes a prospectus for selling stockholders, which covers (i) the issuance by you of up to 23,403,989 shares of your common stock issuable upon the exercise of certain convertible securities and (ii) the offering and sale of up to 226,840,670 shares of your common stock and up to 8,857,762 warrants to purchase your common stock that may be sold in one or more secondary offerings by the selling stockholders from time to time. However, it appears that you currently have an effective S-1 registration statement, File No. 333-269735, that has registered this transaction. Therefore, please remove this prospectus from your S-3 registration statement, or tell us why it is permissible for you to register this transaction on this S-3 registration statement.**

Response to Comment 1: The Company acknowledges the Staff’s comment regarding the Registration Statement on Form S-1 (File No. 333-269735), which was declared effective by the

Commission on April 23, 2024 (the “Prior Registration Statement”). The Prior Registration Statement was initially filed while the Company was ineligible to use Form S-3. The Company currently meets the eligibility requirements of Form S-3 and therefore filed the Registration Statement with the Commission. In advance of the effective date of the Registration Statement, the Company intends to file a post-effective amendment to the Prior Registration Statement to deregister the shares of the Company’s common stock that remain unsold under the Prior Registration Statement. As a result, upon the effectiveness of the post-effective amendment to the Prior Registration Statement, the shares of stock will not be included in any effective registration statement of the Company.

- 2. We note your disclosure in your annual report for the fiscal year-ended December 31, 2023 that “LanzaTech no longer qualified as a smaller reporting company as of the last business day of the Company’s second fiscal quarter.” Because the company no longer appears to be a smaller reporting company, please revise to include, or incorporate by reference to, three years of Statements of Operations and Comprehensive Income (Loss), Stockholder Equity (Deficit), and Cash Flows. See Rules 3-02 and 3-04 of Regulation S-X.**

Response to Comment 2: The Company acknowledges the Staff’s comment and respectfully submits that the Company is not required to include three years of Statements of Operations and Comprehensive Income (Loss), Stockholder Equity (Deficit), and Cash Flows in the Registration Statement, notwithstanding that the Company no longer qualifies as a smaller reporting company (“SRC”).

As noted in the Company’s Annual Report on Form 10-K for the year ended December 31, 2023, filed with the Commission on February 29, 2024 (the “Annual Report”), the Company determined that it no longer qualified as a SRC as of the last business day of the Company’s second fiscal quarter. In the Commission’s Release No. 33-8876 (Dec. 19, 2007), the Commission indicated that a registrant that no longer qualifies as an SRC may continue to use the scaled disclosures permitted for a SRC through its next annual report on Form 10-K. This is consistent with paragraph 3(i)(C) of the definition of “smaller reporting company” in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, and Section 5120.1(c) of the Staff’s Financial Reporting Manual. Item 8(b) of Form 10-K provides that SRCs may provide the financial information required by Article 8 of Regulation S-X in lieu of any financial statements required by Item 8 of Form 10-K. Pursuant to Rule 8-02 of Regulation S-X, a SRC is required to file an audited balance sheet as of the end of each of the most recent two fiscal years and audited statements of comprehensive income, cash flows and changes in stockholders’ equity for each of the two fiscal years preceding the date of the most recent audited balance sheet. Accordingly, the Company continued to use the scaled disclosures permitted for SRCs in its Annual Report, and as a result, the Annual Report includes two, rather than three, years of the Statement of Operations and Comprehensive Income (Loss), Stockholder Equity (Deficit), and Cash Flows.

In the Prior Registration Statement, the Company included three years of Statements of Operations and Comprehensive Income (Loss), Stockholder Equity (Deficit), and Cash Flows pursuant to Item 11(e) of Form S-1, which requires the inclusion of “financial statements meeting the requirements of Regulation S-X,” including Rules 3-02 and 3-04 of Regulation S-X.

In contrast to the requirements of Item 11(e) of Form S-1, Item 12(a)(1) of Form S-3 requires only the incorporation by reference of the Company’s “latest annual report on Form 10-K [. . .] that contains financial statements for the registrant’s latest fiscal year for which a Form 10-K was required to be filed.” Pursuant to this requirement, the Annual Report is incorporated by reference into the Registration Statement. The Company believes it has satisfied the requirements of Form S-3 by specifically incorporating by reference the Annual Report, which contains the requisite financial statements, and that the Company is not required to include, or incorporate by reference, three years of Statements of Operations and Comprehensive Income (Loss), Stockholder Equity (Deficit), and Cash Flows.

* * *

Please contact me at (202) 662-5297 with any questions or further comments regarding our responses to your comments.

Sincerely,

/s/ Kerry Shannon Burke

Kerry Shannon Burke
Covington & Burling LLP

cc: Joe Blasko, LanzaTech Global, Inc.