

# LanzaTech

October 31, 2024

**Via EDGAR**

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Washington, D.C. 20549  
Attn: Robert Augustin

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

**Post-Effective Amendment No. 5  
Registration Statement Filed on Form S-1  
File No. 333-269735**

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, LanzaTech Global, Inc. (the “Company”) hereby respectfully requests:

1. that the effective date for Post-Effective Amendment No. 5 (the “Deregistration Amendment”) to the Company’s Registration Statement on Form S-1 (File No. 333-269735) be accelerated to 4:30 p.m., Eastern Time, on November 1, 2024, or as soon as practicable thereafter; and
2. that the effective date for the Company’s Registration Statement on Form S-3 (File No. 333-279239) be accelerated to 4:31 p.m., Eastern Time, on November 1, 2024, or as soon as practicable thereafter (but in no event prior to the effectiveness of the Deregistration Amendment).

Please contact Kerry S. Burke of Covington & Burling LLP at (202) 662-5297 or kburke@cov.com with any questions you may have regarding this request. In addition, please notify Ms. Burke by telephone when this request for acceleration has been granted.

Respectfully,

**LanzaTech Global, Inc.**

By: /s/ Geoff Trukenbrod  
Name: Geoff Trukenbrod  
Title: Chief Financial Officer

cc: Kerry S. Burke, Covington & Burling LLP  
Brian K. Rosenzweig, Covington & Burling LLP