

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

DIVISION OF CORPORATION FINANCE

April 12, 2023

Paul MannChief Executive Officer and ChairmanASP Isotopes Inc.433 Plaza Real, Suit 275Boca Raton, Florida 33432

Re: ASP Isotopes Inc. Registration Statement on Form S-1 Filed on April 5, 2023 File No. 333-271137

Dear Paul Mann:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Nicholas O'Leary at (202) 551-4451 with any questions.

Sincerely,

Division of Corporation Finance Office of Industrial Applications and Services

cc: Brenda Hamilton