

July 1, 2021

Alex Slusky  
Chief Executive Officer  
Vector Acquisition Corp  
One Market Street  
Steuart Tower, 23rd Floor  
San Francisco, CA 94105

Corp

Statement on Form S-4

25, 2021

Re: Vector Acquisition

Registration

Filed June 25, 2021  
Response dated June

File No. 333-257440

Dear Mr. Slusky:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Form S-4 filed June 25, 2021

General

1. We note your response to comment 1 and defer resolution at this time. If the PIPE investors are receiving shares of Vector Delaware, it is not clear how they will then obtain the shares of the registrant if, as you state in your response, the shares received by the PIPE investors will not be exchanged for shares of New Rocket Lab in the registered offering.

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

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action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Kevin Stertzell at 202-551-3723 or John Cash at 202-551-3768 if you have questions regarding comments on the financial statements and related matters. Please contact Perry Hindin at 202-551-3444 or Jay Ingram at 202-551-3397 with any other questions.

FirstName LastNameAlex Slusky  
Comapany NameVector Acquisition Corp  
  
Corporation Finance  
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Manufacturing  
FirstName LastName

Sincerely,  
  
Division of  
  
Office of