

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

Mail Stop 4628

March 8, 2017

Kyle S. Ramachandran Chief Financial Officer Solaris Oilfield Infrastructure, Inc. 8901 Gaylord Drive, Suite 210 Houston, TX 77024

Re: Solaris Oilfield Infrastructure, Inc.

Draft Registration Statement on Form S-1

Submitted February 9, 2017

CIK No. 0001697500

Dear Mr. Ramachandran:

We have reviewed your draft 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 providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General

- 1. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.
- 2. Please include the name(s) of the lead underwriter(s) in your next amendment. Please note that we will defer our review of any amendment that does not name the lead underwriter(s).

Industry and Market Data, page i

3. Please provide us with the "Hydraulic Fracturing Market 2005-2017" report that Spears & Associates published in the fourth quarter 2016.

Summary, page 1

Our Company, page 1

- 4. Please define the terms "last mile logistics" and "Total Recordable Incident Rate" at their first usage.
- 5. We note your belief that your systems have the ability to unload "at least four times the number of trucks [y]our competitors can unload simultaneously in a comparative footprint." Please revise your disclosure to state the basis for your belief.

Current Market Trends and Challenges, page 2

6. Please revise this section to briefly discuss the "deteriorating industry conditions in hydraulic fracturing operations during 2016 due to low commodity prices" that you reference on page 53.

Our Solutions, page 3

7. We note you state that your systems "provide triple the storage capacity as compared to traditional systems in half the geographic footprint." Please clarify the meaning of "traditional systems."

Competitive Strengths, page 4

8. We note your reference on page 4 to your "strong operational cash flow." Please balance this disclosure by disclosing that you have incurred net losses in recent fiscal periods.

Our Corporate Structure, page 6

- 9. Please revise your disclosure to identify the "certain other investors" that will hold Class B common shares and quantify Yorktown Partners LLC's interest in your Class B common shares.
- 10. Please expand to disclose here that you will be dependent on the ability of Solaris LLC to make distributions to you in an amount sufficient to cover your obligations under the Tax Receivable Agreement. Also disclose here that you expect to make payments under the Tax Receivable Agreement for more than 20 to 25 years.

Use of Proceeds, page 41

11. We note you intend to repay indebtedness under your credit facility entered into in December 1, 2016. Please revise your disclosure to state the use of proceeds of your credit facility if other than for short-term borrowings used for working capital. In addition, please quantify the amounts you intend to allocate to each of the identified uses you reference within "general corporate purposes." In this regard, we note you disclose on page 56 that you "currently estimate that [y]our capital expenditures for 2017 will range from \$35.0 million to \$45.0 million, the majority of which [you] expect will be used to manufacture additional systems for [y]our fleet." Refer to Item 504 of Regulation S-K and the instructions thereto.

Recent Trends and Outlook, page 49

12. We note that you increased your total system revenue days, defined as the combined number of days your systems earned revenues, in nine of the last ten quarters beginning in the first quarter of 2014. Please provide additional disclosure to describe how much of the increases relate to additional systems available for rental relative to the prior comparable period and the rate at which your systems are utilized. In this manner, we note you describe on page 60 that your systems may be overhauled which could imply significant periods of downtime. Please refer to Item 303(a)(3) of Regulation S-K and Section 501.12.b. of the Financial Reporting Codification for guidance.

Results of Operations, page 53

Proppant System Rental and Other Revenue, page 53

13. We note that your proppant system rental and other revenue increased \$2.0 million, or 22%, to \$10.9 million for the nine months ended September 30, 2016 compared to \$8.9 million for the nine months ended September 30, 2015. The increase was

primarily due to a 97% increase in the number of revenue days, partially offset by a 33% decrease in average system rental rates. Pursuant to Item 303 of Regulation S-K, please provide a discussion that describes the extent to which each variance is attributable to increases in price, increases in volumes being sold, the introduction of new products or services or other relevant economic events and known trends or uncertainties that impact future periods. Quantification of the changes should be precise, including use of dollar amounts or percentages, as reasonably practicable.

Cost of Revenues, page 53

14. We note that your cost of revenues increased by \$1.2 million, or 37% for the nine months ended September 30, 2016 compared to \$5.3 million for the nine months ended September 30, 2015 after excluding the impact of the System Sale. We further note that your Proppant system rental and other revenue increased by only 22 % which implies that your cost of revenues expressed as a percentage of revenues is increasing. Please expand your disclosure to describe the cost components included in your cost of revenues for the periods reported and discuss any events that caused the material change in the relationship between costs and revenue. Refer to Item 303(a)(3)(ii) of Regulation S-K.

Property, Plant and Equipment, page 60

15. Please explain or revise to clarify what you refer to as significant enhancements, including upgrades or overhauls and the period over which such costs are depreciated. Please describe the activities associated with upgrades and overhauls, and explain whether and how these costs extend the life, increase the capacity or improve the utility of the property or equipment.

Business, page 66

Raw Materials and Key Suppliers, page 72

16. We note you have historically relied on one supplier for the motors you use in your systems, which are a critical component. Please tell us whether you have a contract with such supplier and, if applicable, file such contract or provide your analysis as to why you are not required to file the agreement. Refer to Item 601(b)(10)(ii) of Regulation S-K.

Our Customers and Contracts, page 73

17. We note you disclose that EOG Resources, Inc. and Frac-Tech International accounted for approximately 46% and 10%, respectively, of your total revenues for

the nine months ended September 30, 2016. Please tell us what consideration you have given to providing a more particularized summary of the material terms of your relationship with these customers and filing any material agreements, such as a master service agreement, with these customers.

Management, page 80

Directors and Executive Officers, page 80

18. Please disclose the business experience of each of your executive officers and directors during each of the most recent five years without gaps or ambiguities in time. See Item 401(e) of Regulation S-K.

Executive Compensation, page 83

19. Please provide executive compensation disclosure for the fiscal year ended December 31, 2016.

Financial Statements, page F-1

20. You will need to update your registration statement to include two years of audited financial statements and related disclosures prior to the filing becoming effective.

Consolidated Statement of Operations, page F-4

- 21. We note your disclosure in several instances, such as pages 49, 59, and F-9 that you generate revenue primarily through the rental of your systems and related services, including transportation of your systems and field supervision and support. Please tell us how much revenue and related costs you have recognized, for each financial period presented, related to, income from rentals, revenue from services, and any other revenues. Please also tell us how you determined you were not required to separately state revenues from services and income from rentals to comply with Rule 5-03(b)(1) of Regulation S-X and to separately disclose the related costs and expenses to comply with Rule 5-03(b)(2) of Regulation S-X.
- We note that your cost of revenues measures do not include depreciation, depletion and amortization. Please clarify whether the entire amount of depreciation, depletion and amortization that you report separately is attributable to cost of revenues. If this is not the case, please specify the amount attributable to cost of revenue for each period to comply with Rule 5-03.2 of Regulation S-X, and SAB Topic 11:B.

Exhibits

23. Please revise to include your charter and bylaws as currently in effect. See Item 601(b)(3) of Regulation S-K.

You may contact John Cannarella, Staff Accountant, at (202) 551-3337 or Jenifer Gallagher, Staff Accountant, at (202) 551-3706 if you have questions regarding comments on the financial statements and related matters. Please contact Parhaum J. Hamidi, Attorney-Adviser, at (202) 551-3421 or, in his absence, Karina V. Dorin, Senior Counsel, at (202) 551-3763 with any other questions.

Sincerely,

/s/H. Roger Schwall

H. Roger Schwall Assistant Director Office of Natural Resources