APPENDIX J FUGITIVE DUST CONTROL PLAN

Alaska LNG™

FUGITIVE DUST CONTROL PLAN

USAI-PE-SRREG-00-000009-010

Plan Status

The following Alaska LNG Project (Project) *Fugitive Dust Control Plan* (Plan) is consistent with a typical Fugitive Dust Control Plan for construction of Federal Energy Regulatory Commission (FERC) projects. The following Plan outlines the general sections that would be required. Site/activity-specific plans won't be able to be developed until construction contractors are appointed. This Plan would be finalized prior to construction and then used each construction contractor to develop a Plan for their respective construction spread(s).

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1.0 INTRODUCTION

This *Fugitive Dust Control Plan* (Plan) provides procedures to minimize fugitive dust during construction. The dust control methods described herein would be applied as frequently as necessary in response to landowner or other affected stakeholder requests, safety concerns, and/or permit requirements.

1.1 REGULATORY REQUIREMENTS

Fugitive dust consists of small airborne particles called particulate matter (PM). The U.S. Environmental Protection Agency and the Alaska Department of Environmental Conservation (ADEC) define fugitive dust as "particulate matter that is generated or emitted from open air operations (emissions that do not pass through a stack or a vent)." The most common forms of PM are known as PM_{10} (particulate matter with a diameter of 10 microns or less) and $PM_{2.5}$ (particulate matter with a diameter of 2.5 microns or less).

Alaska's current regulations that address fugitive dust include:

- 18 AAC 50.045(d): A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project, shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.
- 18 AAC 50.110: No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

Currently, ADEC applies its regulatory authority under 18 AAC 50.045(d) to request fugitive dust sources apply “reasonable precautions” to reduce emissions.

2.0 FUGITIVE DUST SOURCES

Fugitive dust could be generated directly from pipeline installation and aboveground facility construction. The following construction activities have been identified as having the potential for generating fugitive dust:

- Movement of vehicles and motorized equipment on paved and unpaved roads.
- Clearing, including vegetation removal.
- Bulldozing, scraping, and grading.
- Excavation and filling.
- Blasting.
- Material movement, including loading and unloading.
- Hauling of loose materials.
- Use of parking, staging, and storage areas.

It is the responsibility of the Project entity's Construction Contractor(s) (Contractor) and the Project entity's Environmental Inspectors to ensure all sources of dust generation are identified.

3.0 FUGITIVE DUST ABATEMENT

The Project area would be monitored for fugitive dust generation during construction. Abatement of fugitive dust would be required on the construction areas associated with Liquefaction Facility and Gas Treatment Plant (GTP) sites, and Mainline right-of-way (ROW) or access roads when a visible plume of dust with an estimated opacity exceeding 20 percent (objects partially obscured) extends more than 300 feet from the source. Project contractors would be responsible for controlling dust using measures such as reducing travel speeds and/or applying dust suppressants (e.g., water). A listing of fugitive dust control measures that may be used during Project construction is included in Section 4.0 of this *Fugitive Dust Control Plan*.

4.0 FUGITIVE DUST CONTROL MEASURES

The generation of fugitive dust during construction would be reduced through the application of appropriate control measures. Abatement measures would be used as needed and as appropriate to a particular situation. Based on typical practices for similar construction projects and best management practices in Alaska (Alaska Department of Transportation and Public Facilities Dust Control Field Guides for Gravel Driving Surfaces), the following specific control measures would be used as needed to control fugitive dust emissions from the Project:

- Use only Project entity-approved roads for access. Paved access roads would be kept free of mud and soil that may track onto the road surface from the construction ROW through the use of gravel access pads and/or equivalent. If soil is transported onto a public road surface or other paved area, including parking lots, by construction equipment and vehicles, it would be removed as soon as practical from the road by shoveling or sweeping, and would be transported back to a designated sediment control disposal area within the construction ROW. Road washing, if necessary, would only be allowed after the soil has been scraped from the paved road surface.
- Reduce vehicle speeds on unpaved roads; speed limits may be set on unpaved roads.
- Clean up track-out and/or carry-out areas at paved road access points.
- Ensure that all haul truck cargo compartments are maintained so as to minimize spills and loss of materials. Cover haul loads of open body trucks where applicable.
- Apply water to affected unpaved roads, unpaved haul/access roads, and staging areas (when in use). Water for fugitive dust control purposes would be obtained as necessary through permits or purchase contracts with owners of valid existing water rights, as described in the Project's *Water Use Plan*. These approvals would be acquired prior to construction. Current proposed sources of water for dust abatement are listed in the *Water Use Plan*.
- When appropriate and as needed, apply approved dust suppressant such as a water/magnesium chloride mixture or calcium chloride. The use of magnesium chloride would be restricted in sensitive vegetative areas, where only water or alternative dust suppressants would be considered.
- Apply water to active construction areas as needed. Areas should be pre-watered and soils maintained in a stabilized condition where support equipment and vehicles would operate. Water-disturbed soils would form a crust, reducing the potential for dust creation.
- Control water spray so that over-spraying and pooling would be avoided to the extent possible.
- Where roads are paved, no dust mitigation may be necessary.

In addition, dust control measures would also be implemented as appropriate in response to any landowner concerns that may arise as well as the construction schedule (i.e., winter versus summer construction spreads). Fugitive dust is not anticipated to be an issue during winter construction seasons for the GTP, Point Thomson Gas Transmission Line, and Mainline spreads.

4.1 RESPONSIBILITIES

The Project entity and its designated Contractors would be responsible for all dust control in the Project area during the construction phase of the Project (seven days a week, including weekends and holidays). Each Contractor supervisor would have a copy of their respective Plan available on site at all times. Problem areas, or potential problem areas observed via site

monitoring during construction, must be controlled as soon as possible after being brought to the attention of the Contractor.

Prior to construction, affected landowners would be provided with the local construction office phone number to facilitate communication with the Project entity's construction management and environmental inspection teams. A landowner complaint resolution process would be used to quickly and effectively remedy any dust-related issues that may arise.

4.1.1 Inspection, Monitoring, and Recordkeeping

This Plan will form part of the Contractor tender package to ensure the proposals are appropriately resourced and to assist with contract evaluations. The Contractors chosen for the Project would implement the dust control measures specified in this *Plan*, while the Project entity's Environmental Inspectors would be primarily responsible for monitoring and enforcing the implementation of needed dust control measures, as well as ensuring that dust control is effective and proper documentation is maintained. All construction site personnel would be trained on the measures outlined in this Plan.

Field inspection for dust control would occur daily throughout the construction and reclamation phases of the Project. The Project contractors and Environmental Inspectors would be responsible for recording the following information on a daily basis for the purpose of fugitive dust monitoring and control:

- Weather conditions (temperature, wind speed, and direction).
- Number of water trucks in use.
- Instances where fugitive dust was of such a concentration that abatement measures were implemented.
- Condition of Project soils (crusted, damp, or unstable).
- Presence of tracked-out fugitive dust and when it was cleaned.
- Overall status of dust control compliance.

The Environmental Inspector's daily report would include this information and would be made available for review by interested local agency representatives upon request.

5.0 REFERENCES

ADEC 2011, Fugitive Dust Facts: Frequently Asked Questions, https://dec.alaska.gov/air/ap/docs/Fugitive%20Dust%20FAQs%203-31-11.pdf

ADEC Division of Air Quality, 2015, State of Alaska Air Regulations, http://dec.alaska.gov/air/ap/regulati.htm

ADOT Research, Development, and Technology Transfer, 2015, Dust Control Field Guide for Gravel Driving Surfaces