



Review of Transportable Drill Rigs (TDRs) Regulations

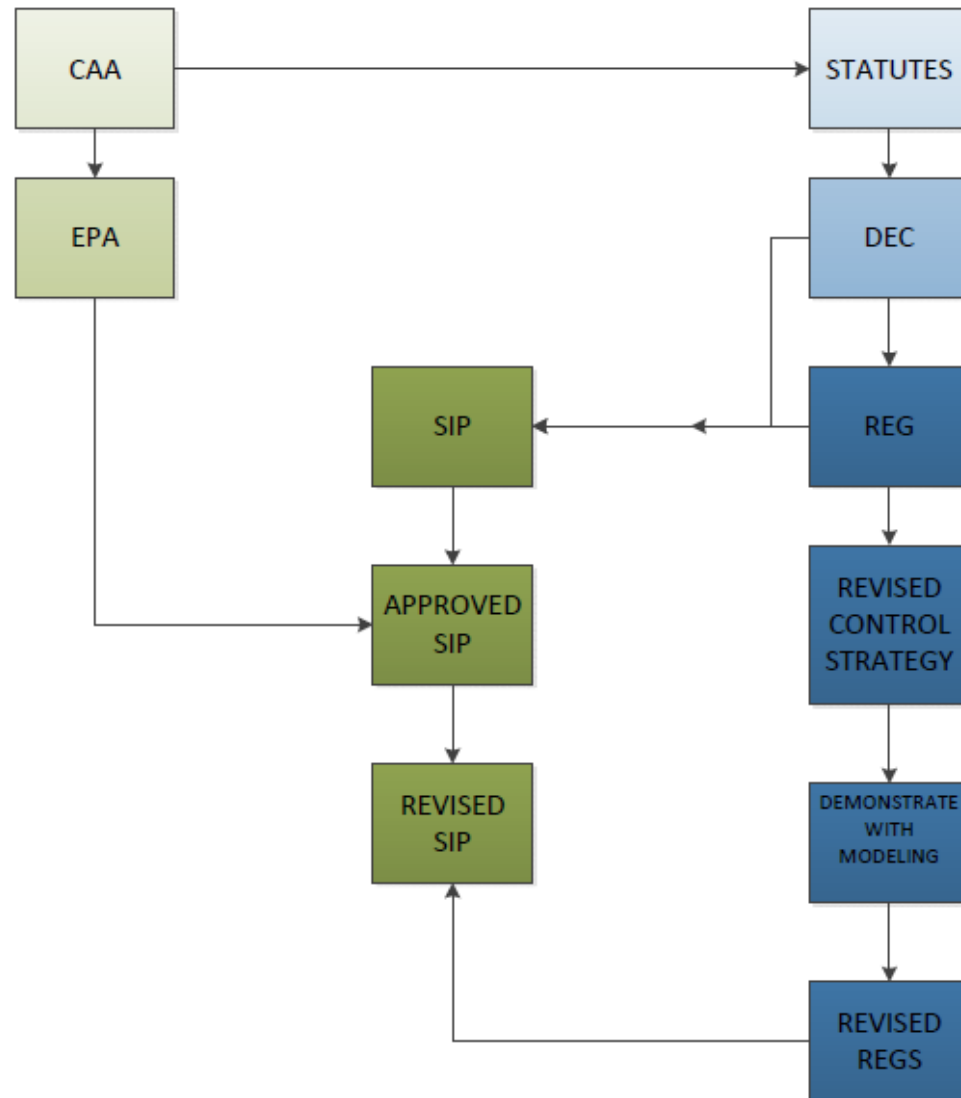
Purpose of Presentation

- ▶ Provide overview of TDR regulations
- ▶ Discussion of option proposed to change current SIP that has approved 18 AAC 50.502(c) –TDR Minor stationary source (MSS) permits

Chain of ADEC Authority to regulate TDRs

- ▶ Air Quality (AQ) concerns ultimately overseen by federal law:
 - ▶ Through authority of Clean Air Act (CAA)
 - ▶ States' regulations must be approvable by the federal government, through the U. S. Environmental Protection Agency (USEPA)
 - ▶ States' regulations, collectively grouped into State Implementation Plans (SIPs), are periodically reviewed by the USEPA
- ▶ Within the State of Alaska, authority for enforcement for air quality (AQ) concerns is given by:
 - ▶ Alaska Statutes (AS), enacted by:
 - ▶ AK State Legislature in a State Legislative Act (SLA)
- ▶ State AQ regulations provide a specific mechanism to implement the AS

Flowchart of Regulatory Structure Governing TDR permits



Clean Air Act (CAA) Requirements: Federal Authority

- ▶ [State Implementation plans \(§110\)](#) -Measures to prevent violations of air quality standards
- ▶ [PSD program \(§161\)](#) Emission limitations and other such measures ...to prevent significant deterioration of air quality.
- ▶ [Title V permit program \(§504\)](#) Permits authorizing operations at multiple temporary locations must ensure compliance with air quality standards and PSD increments

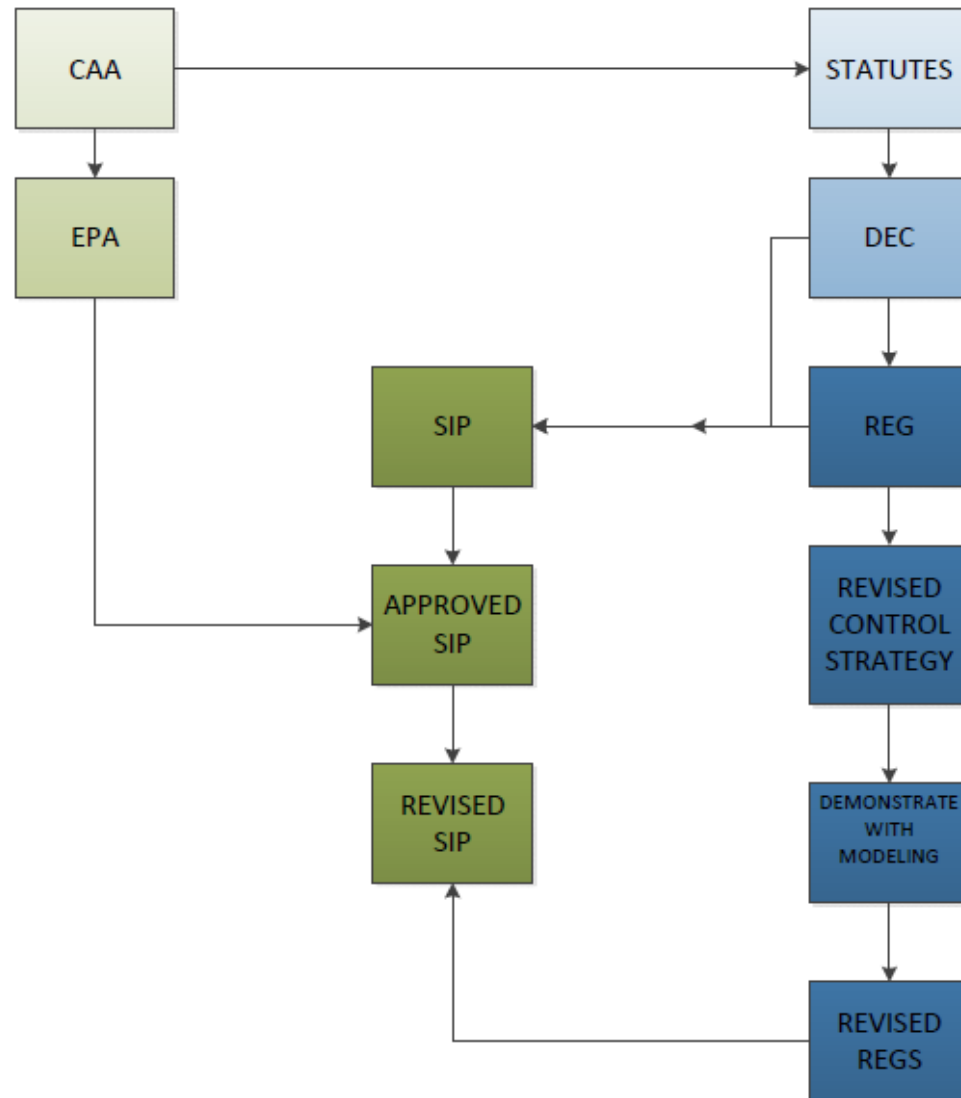
SIP requirements

- ▶ Must be able to prevent construction or modification if it will interfere with attainment or maintenance of an ambient air quality standard [40 CFR 51.160]
- ▶ Alaska implements this requirement for drilling operations through permits required by AS 46.14.130(c) (minor permits)

Changing SIP Requirements

- ▶ Prior rules remain federally enforceable until change is approved by EPA [40 CFR 51.105]
 - ▶ Current/Existing Approved SIP/Regs Protect Air Quality
- ▶ Must demonstrate that revised control strategy will ensure compliance with air quality standards. [40 CFR 51.112]
 - ▶ Change goes into Revised SIP/REGS for approval
- ▶ Demonstration must be made using air quality models. [40 CFR 51.112]

Flowchart of Regulatory Structure Governing TDR permits



Sec. 46.14.030. State air quality plan: State Authority

- ▶ The department shall act for the state in any negotiations relative to the state air quality control plan developed under 42 U.S.C. 7401 - 7671q (Clean Air Act), as amended. The department may adopt regulations necessary to implement the state plan.

AS 46.14.130 (c). Stationary sources requiring permits

- ▶ (c) Unless the owner and operator of a stationary source are required to obtain a construction permit under (a) of this section, before constructing, installing, modifying, operating, or establishing a stationary source, the owner and operator shall obtain a minor permit from the department if the stationary source is of a type classified under [AS 46.14.020](#)
 - ▶ As having the potential to violate the ambient AQ standards; or
 - ▶ Under a finding by the department that the public health or air quality effects provide a reasonable basis to regulate the stationary source

Sec. 46.14.020. Classification of stationary sources or emissions units; reporting

- ▶ (a) The department, by regulation, may classify stationary sources or emissions units that, in the department's determination are likely to cause or contribute to air pollution, according to the levels and types of emissions and other characteristics that relate to air quality. The department may make a classification under this subsection applicable to the state as a whole or to a designated area of the state. The department shall base the classifications on consideration of health, economic, and social factors, sensitivity of the receiving environment, and physical effects on property.
- ▶ (b) The department or a local air quality control program authorized under [AS 46.14.400](#) may require an owner and operator of a stationary source or emissions unit classified under this section to report information to the department or the authorized local program concerning location, size, and height of stacks or area emissions units, processes employed, fuels used, the nature and time periods or duration of emissions, and other information relevant to air quality that is available or reasonably capable of being calculated and compiled.

18 AAC 50.502(c) (2). Minor permits for air quality protection – relevant to TDRs

- ▶ 18 AAC 50.502(c)(2)
 - ▶ (c) The owner or operator must obtain a minor permit under this section before commencing
 - ▶ (2) construction or, if not already authorized in a permit under this chapter, relocation
 - ▶ (A) on or after December 3, 2005 of a portable oil and gas operation, unless the owner or operator
 - ▶ (i) complies with an existing operating permit developed for the portable oil and gas operation at the permitted location; or
 - ▶ (ii) operates as allowed under [AS 46.14.275](#) (Timely and Complete Application as Shield) without an operating permit;

18 AAC 50.540 (c). Minor permit: application – modeling requirement

- ▶ (c) **Minor permit for air quality protection.** Except for a Port of Anchorage stationary source, a permit application under 18 AAC [50.502](#) must include
 - ▶ (1) the information required in the the following forms, included in the department's **Minor Permit Application Forms** , adopted by reference in [18 AAC 50.030](#):
 - ▶ (A) *Emission Unit Information Form*
 - ▶ (B) *Emission Summary Form* ; and
 - ▶ (2) for a permit for construction, modification, or relocation of a stationary source, a demonstration that the proposed potential emissions from the stationary source will not interfere with the attainment or maintenance of the ambient air quality standards; the ambient demonstration must follow an approved modeling protocol if the department requests a modeling protocol for demonstrating compliance with ambient air quality standards; unless the department has made a finding in writing that the stationary source or modification does not need an ambient analysis to determine that construction and operation will not result in a violation of an ambient air quality standard, the application must include an ambient analysis for

Purpose of AQ governance

- ▶ Permit is mechanism used to prevent permitted source from violating AQ Standards
 - ▶ Not a willful decision, shows rules and compliance.
 - ▶ Past performance not guarantee of future performance
 - ▶ Must Demonstrate “will not” not “ have not”
 - ▶ Safeguards must exist for the future as well as the present
 - ▶ Have assurance in revised SIP/REGS

Option Proposed

- ▶ Identified Ambient Air Monitoring (AAM) sites will continue monitoring operations for two years at well sites in Alpine and Prudhoe Bay (CD1 and A Pad) and at Nuiqsut and to submit the data results to ADEC.
- ▶ Additionally, industry will demonstrate via near-field dispersion modeling that drill rigs' historical actual emission do not cause exceedances of the one-hour NO₂ AQ standard
- ▶ If levels of criteria pollutants (particularly NO₂ and PM_{2.5}) are not measured at levels that threaten the National Ambient Air Standards (NAAQS), there would be an assurance that TDRs do not require modeling as required by 40 CFR 51, Appendix W and the applicable 18 AAC 50 regulations can be changed and a SIP revision proposed