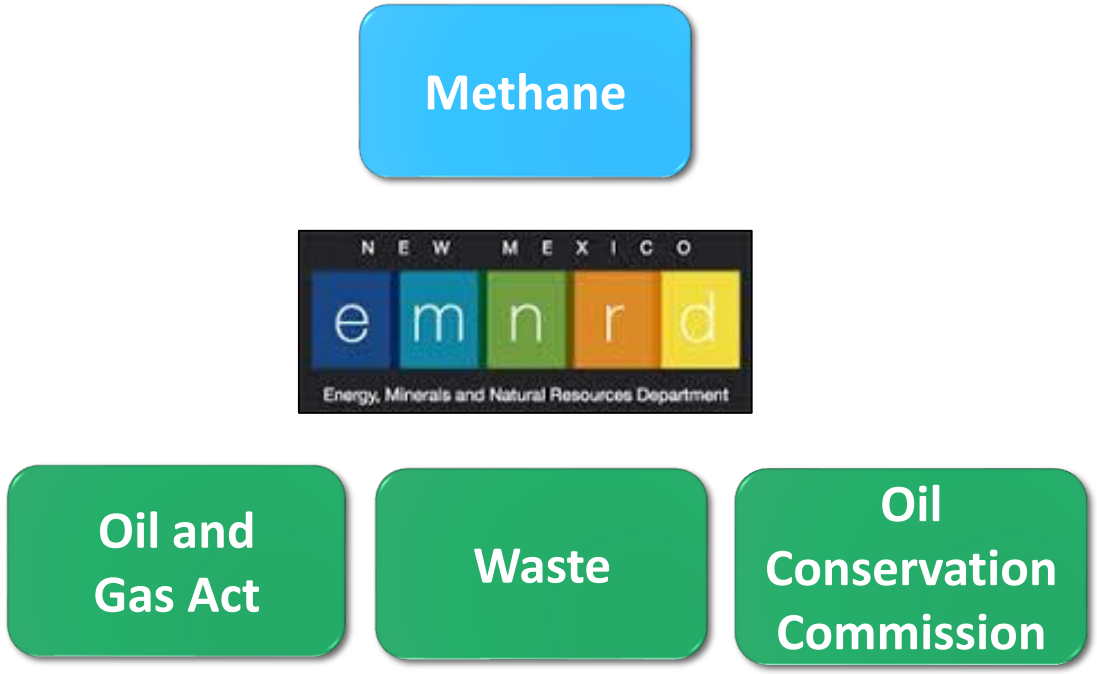
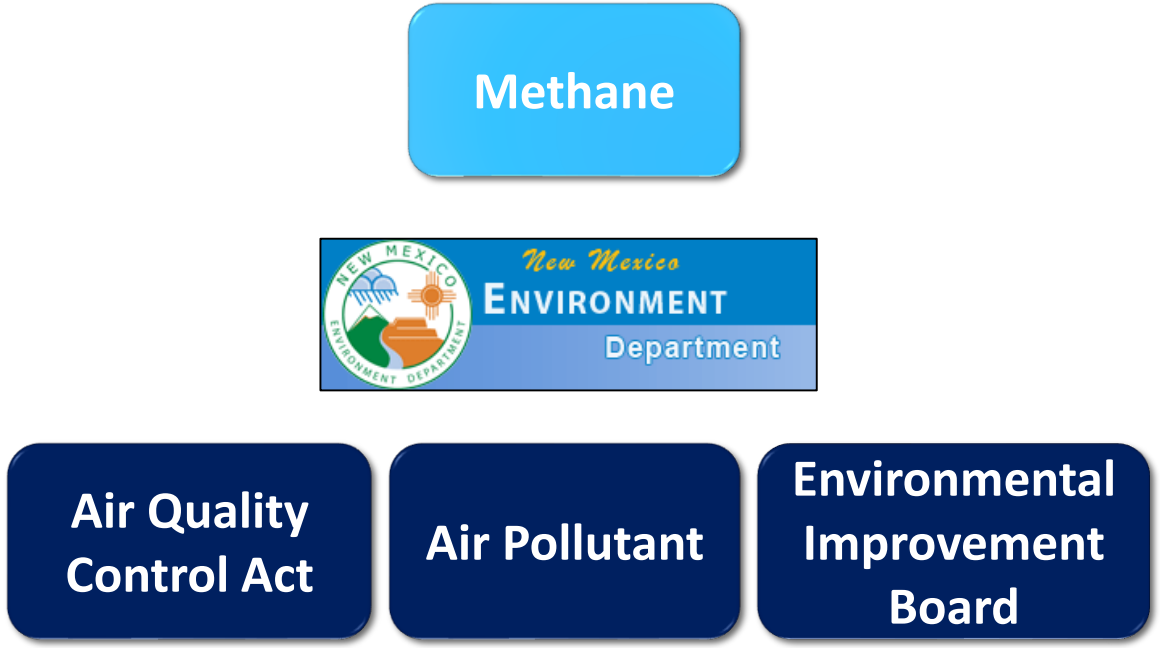
Developing New Mexico's Methane Strategy

- The New Mexico Energy, Minerals and Natural Resources Department will regulate to prevent the waste of methane from oil and natural operations.
- The Oil and Gas Act provides the legal authority.
- Proposed rules are reviewed and adopted through the Oil Conservation Commission.



Developing New Mexico's Methane Strategy



- The New Mexico Environment Department will regulate methane emissions from oil and natural operations.
- The Air Quality Control Act provides the legal authority.
- Proposed rules are reviewed and adopted through Environmental Improvement Board.

Developing New Mexico's Methane Strategy

- NMED must go before the Environmental Improvement Board (EIB) to request adoption of the proposed rule. In adopting regulations, the Air Quality Control Act generally requires the EIB to consider several factors (NMSA 74-2-5.3):

1) Public interest, including the social and economic value of the sources of emissions and subjects of air contaminants
2) Previous experience with equipment and methods available to control the contaminants involved
3) Energy, environmental, and economic impacts and other social costs

New Mexico Environment Department

Developing New Mexico's Methane Strategy

- NMED must go before the Environmental Improvement Board (EIB) to request adoption of the proposed rule. In adopting regulations, the Air Quality Control Act generally requires the EIB to consider several factors (NMSA 74-2-5.3):

4) Efforts by sources of emissions to reduce emissions prior to the effective date of regulations adopted under this section
5) For existing sources of emissions, the remaining useful life of any existing source to which the regulation would apply

New Mexico Environment Department

Developing New Mexico's Methane Strategy

- Applying the statutory requirements to pneumatic devices and storage vessels
  - Pneumatic devices are process control devices used throughout the oil and natural gas industry
  - Natural gas is used to operate valves that regulate safety shut-down, position, fluid level, pressure, temperature and flow rate
  - Methane emissions occur from pneumatic controllers when the pressurized gas is released to atmosphere after the control action is performed
  - Continuous bleed controllers emit natural gas (primarily methane) all the time, while intermittent vent controllers emit natural gas only when actuating

New Mexico Environment Department

Developing New Mexico's Methane Strategy

- Pneumatic Devices – Options for Control:
  - Replace or retrofit continuous or intermittent bleed devices to no bleed or low bleed devices
  - Replace natural gas with air to actuate devices at new well sites or consider electrical alternatives
  - Public interest?
  - Energy, environmental, economic interests, and other social costs?
  - Existing Regulations? Technically feasible?
  - Efforts by sources to reduce emissions?
  - Cost effectiveness?

New Mexico Environment Department

Developing New Mexico's Methane Strategy

- Storage Vessels are used throughout the oil and natural gas industry to store crude oil, condensate, produced water, lube oil and process fluids
- Significant sources of VOC/methane emissions
- Storage vessels can be installed as a single unit or as a tank battery
- Three different types of emissions from storage vessels:
  - Flash vaporization from changes in pressure
  - "Working" losses due to changes in tank levels from filling/emptying
  - "Breathing" losses due to changes in ambient conditions throughout any given day

New Mexico Environment Department

Developing New Mexico's Methane Strategy

- Storage Vessels – Options for Control
  - Several options for capturing and routing emissions back to the process or destroying emissions
  - Capture via vapor recovery tower/unit and route back to the process
  - Capture and destroy emissions via flare or enclosed combustion device
  - Public interest?
  - Energy, environmental, economic interests, and other social costs?
  - Existing Regulations? Previous experience with equipment and methods of control?
  - Technically feasible? Efforts by sources to reduce emissions? Cost effectiveness?

New Mexico Environment Department