What is a CTG?

- Describes techniques to control emissions from a source category
- Not a regulation and not enforceable
- SIPs for moderate or worse ozone NAAs must include VOC RACT requirements for existing sources in the CTG source category
- RACT may differ from the CTG recommendations
Oil & Gas CTG

“Control Techniques Guidelines for the Oil and Natural Gas Industry”
- Sources of emissions
- Control techniques
- Costs

Finalized October 2016
SIP revision due October 2018
Sources Evaluated in Oil & Gas CTG

- Storage vessels
- Compressors
- Pneumatic controllers
- Pneumatic pumps

- Equipment leaks from natural gas processing plants
- Fugitive emissions from wells and gathering and boosting stations
<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Reg. 7</th>
<th>CTG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressors – centrifugal and reciprocating</td>
<td>XVII</td>
<td>Yes</td>
</tr>
<tr>
<td>Pneumatic controllers</td>
<td>XVIII</td>
<td>Yes</td>
</tr>
<tr>
<td>Pneumatic pumps</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Fugitive emissions – well sites and compressor stations</td>
<td>XVII</td>
<td>Yes</td>
</tr>
<tr>
<td>Condensate tanks</td>
<td>XII, XVII</td>
<td>Yes</td>
</tr>
<tr>
<td>Crude oil tanks</td>
<td>XVII</td>
<td>Yes</td>
</tr>
<tr>
<td>Produced water tanks</td>
<td>XVII</td>
<td>Yes</td>
</tr>
<tr>
<td>Equipment leaks at natural gas plants</td>
<td>XII</td>
<td>Yes</td>
</tr>
<tr>
<td>Liquids unloading</td>
<td>XVII</td>
<td>No</td>
</tr>
</tbody>
</table>
CTG-Reg 7 Differences

- Regulation No. 7 is less stringent than CTG recommendations in some respects
  - Pneumatic pump emissions
  - Less frequent LDAR in some cases
  - Some compressor requirements and MRR
  - Differing provisions for leaks at natural gas processing plants
- Some Reg 7 provisions are state-only
Colorado regulations are more stringent than CTG in some respects

- Storage Tank Emission Management plan (Reg 7)
- BMPs for well liquids unloading (Reg 7)
- Green completions (COGCC)
- Capture and control natural gas during drilling phase (COGCC)
Pneumatic pumps

Model By Nick Dunham
Animation, Texture and Render By Jonathan Johnson
CTG recommends emissions be routed to existing control device with 95% control

$847/ton VOC controlled
# Pneumatic Controllers

<table>
<thead>
<tr>
<th></th>
<th>Reg 7</th>
<th>CTG</th>
</tr>
</thead>
</table>
| Wells & upstream of gas plant | Low bleed  
No bleed where line power is in use and feasible | Low bleed                |
| Gas plant              | Low bleed  
No bleed where line power is in use and feasible                     | Zero bleed               |
APCD Response to CTG

- APCD will propose RACT SIP revision
  - October 2017 hearing
- APCD envisions targeted changes to Reg 7
- Stakeholder process underway
- Discussing scope of rulemaking
Potential Scope of 2017 Rulemaking

- APCD solicited comment on three prongs
  - Respond to CTG
  - Harmonize Reg 7, OOOOa and possibly BLM rule
  - Additional emission reductions, potentially from pneumatic controllers
- Stakeholder process ongoing
Status of CTG

- Not subject to Congressional Review Act
- Unclear whether subject to regulatory reform Executive Order
- EPA reportedly considering revocation
- Division intends to proceed with 2017 oil & gas rulemaking hearing
Congressional Review Act

- By simple majority vote, Congress may adopt a joint resolution for disapproval of;
- A “rule” “submitted” to Congress;
- Less than 60 legislative days before the end of either chamber’s session (e.g., on or after June 13, 2016);
- Within 60 Senate session days after the 15th legislative day of the new session (e.g., May 11, 2017)
- Agency can never issue a rule that is “substantially the same”
# 14 Rules Disapproved

<table>
<thead>
<tr>
<th>FCC – broadband privacy</th>
<th>SSA – sale of guns to mentally ill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education – state plans and accountability</td>
<td>HHS – state funding of Planned Parenthood</td>
</tr>
<tr>
<td>Education – teacher preparation standards</td>
<td>Labor – drug tests for unemployment benefits</td>
</tr>
<tr>
<td>SEC – disclosure of energy company payments to foreign governments</td>
<td>DOD, GSA, NASA – disclosure of labor law violations in contract bids</td>
</tr>
<tr>
<td>DOI – stream protection from mining wastes</td>
<td>Labor – OSHA recordkeeping</td>
</tr>
<tr>
<td>DOI – land use planning</td>
<td>Labor – city and county auto-IRAs</td>
</tr>
<tr>
<td>DOI – hunting practices in Alaska wildlife refuges</td>
<td>Labor – state auto-IRAs*</td>
</tr>
</tbody>
</table>
CRA Status of LDAR Rules

- NSPS OOOOa published June 3, 2016
  - Methane rule for new and modified O&G sources
  - Before CRA “reset” date
  - EPA granted administrative reconsideration and 90-day stay on April 18, 2017

- BLM venting and flaring rule
  - Resolution to disapprove failed 49–51 in Senate on May 10, 2017
  - DOI stated its intent to review pursuant to regulatory reform Executive Order
Questions?