

Upcoming Federal Air Regulations and Other Actions Affecting Upstream Oil and Gas Operations

**IOGCC
2011
ANNUAL
MEETING**

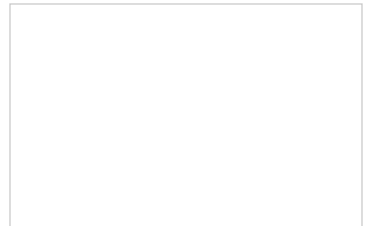
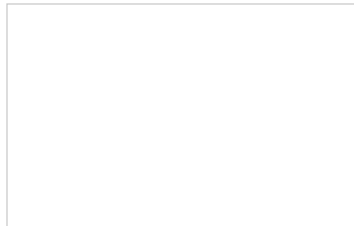
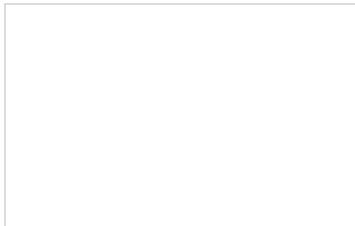
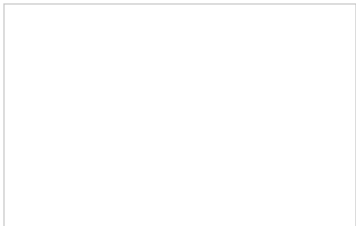
**BUFFALO,
NEW
YORK**



October 18, 2011



August 23, 2011 Proposed Federal Air Rules



Federal Air Regulations



- **New Source Performance Standards (NSPS)**
 - Criteria pollutants (VOC, NO_x, SO₂, PM, CO)
 - New, reconstructed, and **modified** sources
- **National Emission Standards for Hazardous Air Pollutants (NESHAP)**
 - Hazardous air pollutants (HAP)
 - New and existing sources
 - Major and area sources
 - Major source threshold – 10 tpy single HAP; 25 tpy combined HAPs
 - Major source rules commonly called MACT Standards

Existing Oil and Gas Federal Regulations

- **NSPS (40 CFR 60)**
 - Subpart KKK - Equipment Leaks Of VOC From Onshore Natural Gas Processing Plants
 - Subpart LLL – Onshore Natural Gas Processing: SO₂ Emissions
- **NESHAP (40 CFR 63)**
 - Subpart HH – Oil and Natural Gas Production Facilities
 - Subpart HHH – Natural Gas Transmission and Storage Facilities

Followup Clean Air Act Requirements

- **NSPS**

- 8 years after rule is finalized, EPA must conduct review of standards
- Oil and Gas NSPS rules finalized in 1985

- **MACT Standards**

- 8 years after rule is finalized, EPA must:
 - Conduct residual risk review
 - Conduct technology review
- Oil and Gas MACT rules finalized in 1999

Litigation

- **In 2009, complaint filed by environmental organizations**
- **February 2010, Court entered Consent Decree requiring EPA to perform:**
 - Residual risk review for MACTs
 - Technology review for MACTs
 - Reviews of NSPSs
- **Dates:**
 - Propose by July 28, 2011 ✓
 - Promulgate by February 28, 2012

Proposal Summary - EPA Decisions

Summary of Proposed Decisions			
Type of Review	Outcome of Decision		
	No Additional Regulation	Tighter Regulation	New Regulation
NSPS Reviews		✓	✓
MACT Technology Reviews		✓	
MACT Residual Risk Reviews		✓	
MACT Other Reviews		✓	✓

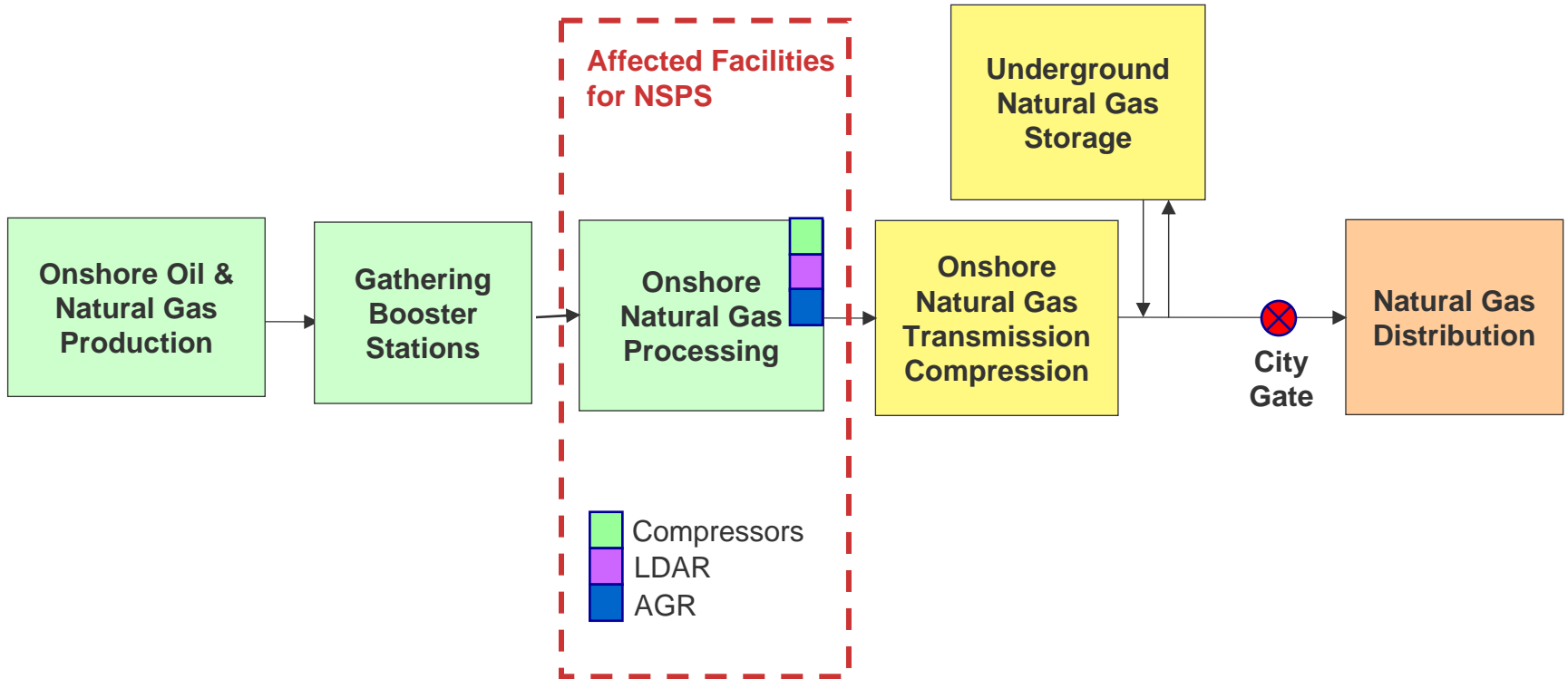
Proposed NSPS



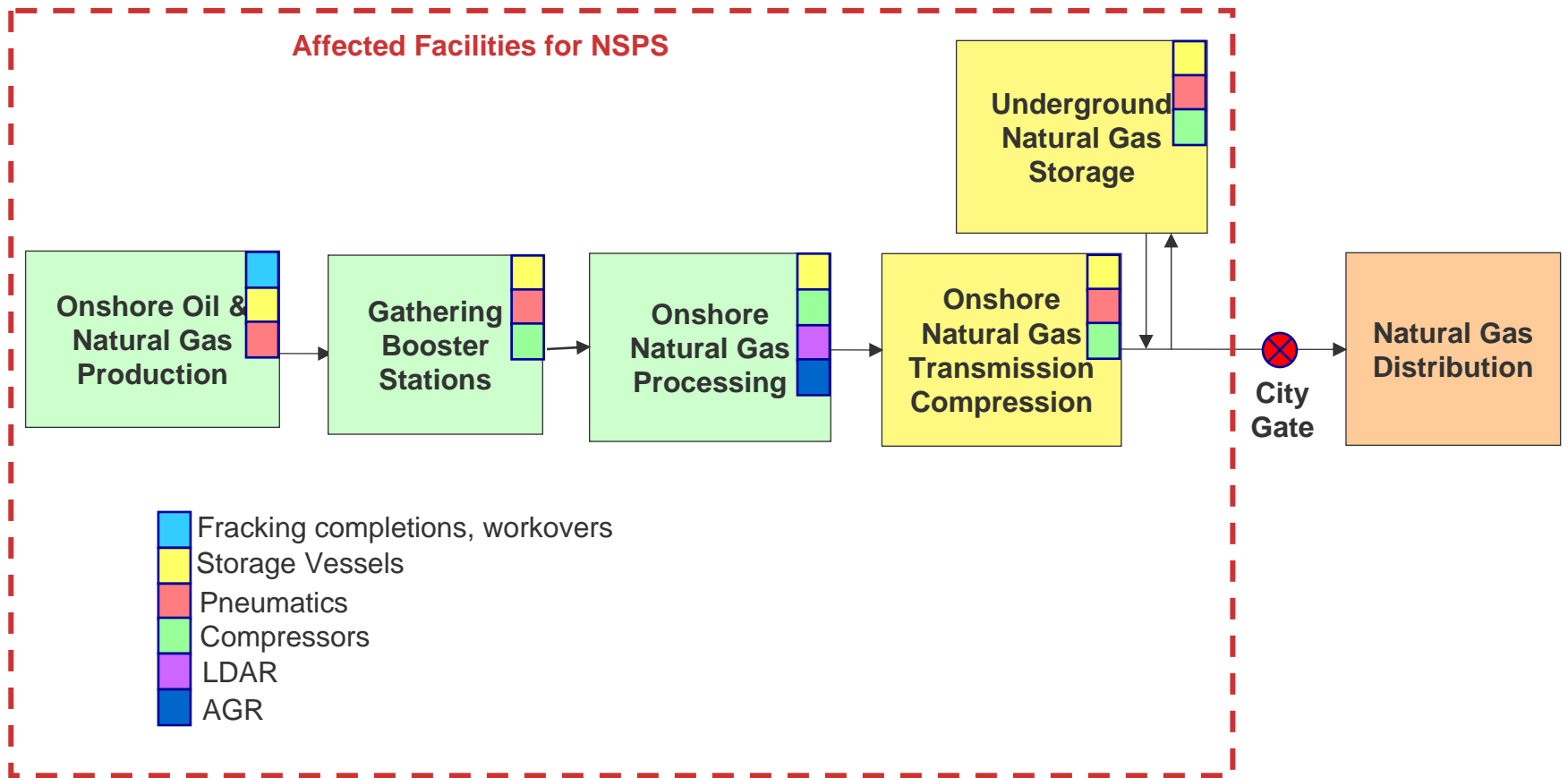
- **Every new hydraulically fractured well (completion or workover) will be subject to NSPS**
- **Every new pneumatic device will be subject to NSPS**
- **Every new reciprocating compressor and centrifugal compressor not at a well site will be subject to NSPS**
- **Every new gas processing plant will be subject to NSPS**
- **Every new storage vessel will need to be evaluated to determine if it is subject to NSPS.**
- **Every repair or upgrade of a compressor, processing plant, and storage vessel will need to be evaluated to determine if it meets the definition of “reconstruction” or “modification”**



Facilities Subject to Current NSPS (KKK, LLL)



Facilities Subject to Proposed NSPS (OOOO)



Proposed NSPS – Compliance Dates

- **NSPS will apply to all new or modified sources that commence construction (including reconstruction) or modification after August 23, 2011**
 - If you “commence” construction, reconstruction, or modification after August 23, 2011, you will have to comply with all applicable requirements immediately when the rule is finalized (early March 2012) or upon startup, whichever is later
 - If you “commence” construction, reconstruction, or modification after the rule is finalized, you will have to comply immediately upon startup

**Commenced* means “that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.”

Proposed NESHAP – Major Changes

- **Major source determination changes - Upstream sites that are now area sources will become major sources (and become subject to the MACT)**
- **Requirements for previously unregulated sources**
 - Small dehydrators
 - Storage vessels that do not have the “potential for flash emissions”
- **More stringent LDAR at gas processing plants**

Proposed NESHAP – Other Changes

- **Require compliance with all requirements during SSM**
- **Require test results be submitted electronically using EPA's Electronic Reporting Tool (ERT)**
- **Alternative performance test for non-flare combustion control devices**
- **Parametric monitoring calibration requirements**
- **Periodic performance testing**
- **Remove the allowance for design analysis**
- **Remove minimum residence time requirement for an enclosed combustion device**
- **Add recordkeeping and reporting requirements to document carbon replacement intervals**

Proposed NESHAP - Compliance Schedule

Source	Compliance Date (after date final rule is published in the Federal Register)
Small dehydrators	3 years
Large dehydrators that are complying with the 1 tpy benzene limit	90 days
Storage vessels that are not storage vessels with the potential for flash emissions	3 years
New major sources production field facilities	3 years
All sources during SSM	Immediately*
Gas processing plants (more stringent LDAR)	Immediately*

*These are assumed since the proposed rule does not provide a compliance date for these instances.

EPA's Estimated Impacts of Proposal

- **Emission Reductions**

- 38,000 tpy HAP
- 540,000 tpy VOC
- 3.4 million tpy methane

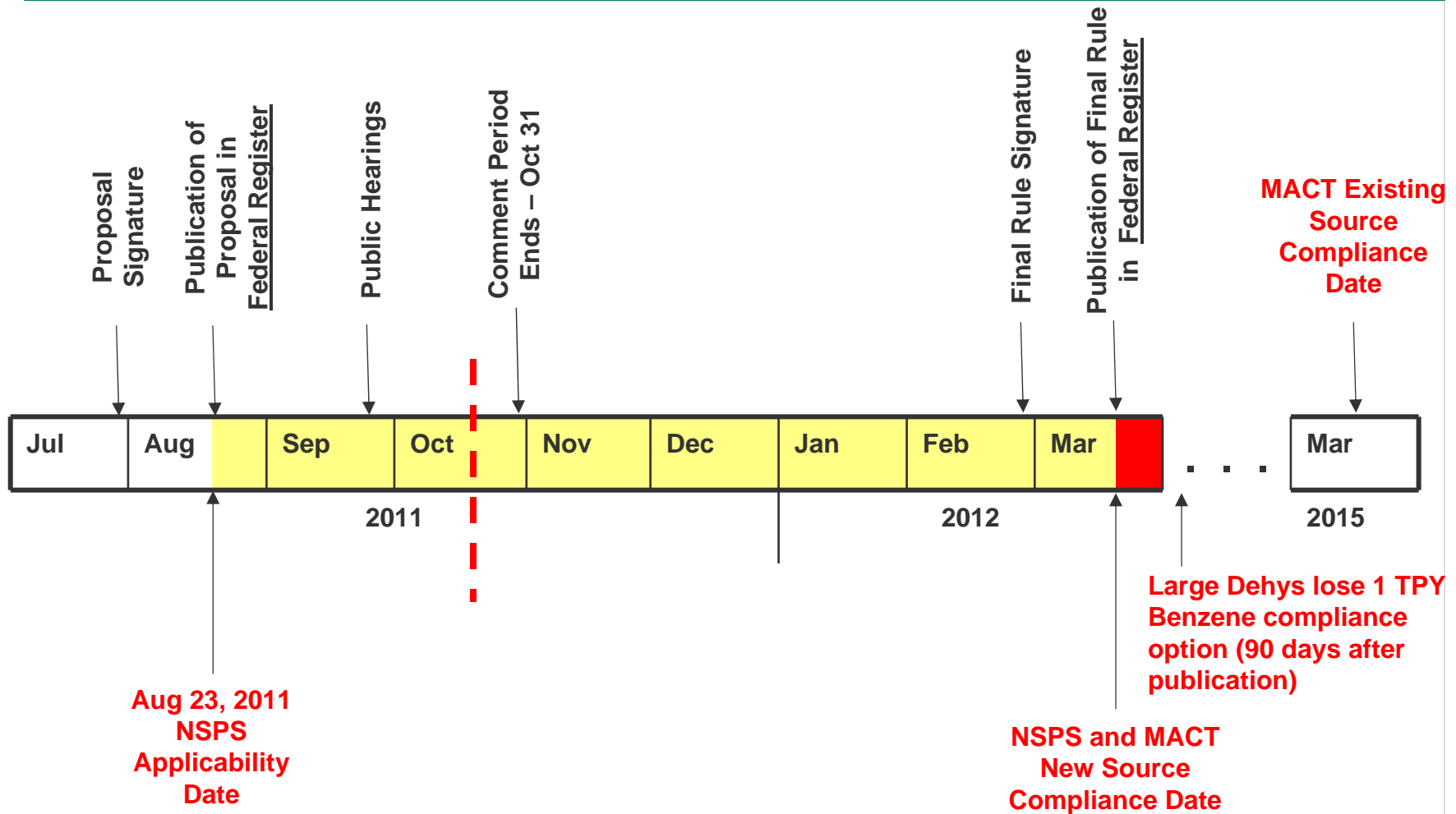
- **Costs to Industry**

- Capital Costs ~ \$800 million
- Annual Costs
 - ~\$755 million/yr without considering recovery revenues
 - ~\$45 million/yr net savings considering recovery revenues

Other Impacts of Proposed Regulations

- **Permitting**
 - Title V, NSR
 - State permitting
- **Impact on Permitting/Enforcement Agencies**
 - Estimated at ~\$1.2 million/yr
- **Third Party Verification (EPA Requested Comments)**
 - Verification of compliance by independent 3rd party
 - Clearinghouse for notifications, records, and annual compliance

Proposed NSPS and NESHAP Timeline



Q&A

For more Information, please contact

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