



Alaska Department of Environmental Conservation
Spill Prevention and Response Division
Industry Preparedness Program

OUCH!

More ADEC regulations...

(Happy New Year from your friendly
environmental regulator)



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Industry Preparedness Program

Terminals & Tank Farms	Marine Vessels	TAPS/JPO
Financial Responsibility	Pipeline & Tank Integrity	Exploration Production & Refineries

Terminals and Tank Farms

- More than 70 oil storage terminals (refined product)
- Nearly 700 aboveground storage tanks
- More than 1100 underground storage tanks at nearly 500 facilities

Marine Vessels

- Crude oil group regulates about 30 vessels
- Non-crude group regulates more than 100 vessels
- Non-tank group regulates vessels greater than 400 gross ton and the AK Railroad

TAPS/JPO

- Oversight of the Trans Alaska Pipeline System and the Valdez Marine Terminal

Financial Responsibility & Prevention Initiatives

- Ensures that operators have access to adequate financial resources to pay for spill response and damages. Minimum amounts are set by Alaska Statute
- Maintains register of Primary Response Action Contractors (PRACs)
- Coordinates regulation revisions

Pipeline & Tank Integrity

- Provides engineering advice to program staff
- Applies knowledge of corrosion, metallurgical, hydraulic, structural, and Arctic engineering
- Assists in evaluation of integrity of pipelines, piping, and storage tanks

Exploration, Production & Refineries

- Nearly 40 facilities across the state
- 4 refineries
- 12 production facilities
- 19 exploration facilities
- 2 crude oil pipelines/terminals

Regulatory oversight?

- Review Oil Discharge Prevention & Contingency Plans (c-plans); new and renewal applications
- Conduct facility inspections
- Conduct discharge exercises (drills)
- Records audits
- Provide assistance to the regulated community

Changes to 18 AAC 75, Article 1

- Increased prevention training and documentation requirements
- New regulations for flow lines (multi-phase and produced water)
- Revised regulations for aboveground oil storage tanks – field-constructed and shop-fabricated (portable) tanks larger than 10,000 gallon capacity
- Revised regulations for facility piping

Prevention training

- Moved into its own section and expanded
- Personnel that inspect, maintain, operate oil storage and transfer equipment must be trained regarding company and state spill prevention measures
- Job descriptions and training level needed
- Keep training records for 5 years

What's a flow line?

- New definition: piping that carries oil between a well pad or offshore platform and a production facility
- Multi-phase lines and produced water lines
- Does not include seawater lines (our regs cover "oil" only)

Flow line construction

- Flow lines installed before 2009 – no construction standard applies
- Flow lines installed in 2009 or later must be designed and constructed per ASME B31.4, B31.8, or equivalent

Flow line operation

- Starting in 2008, operator must have corrosion control in place for ALL flow lines
 - Monitoring and control program – ASME B31.4
 - Buried or submerged flow lines – NACE RP0169
 - Aboveground flow lines – external corrosion control by coating, corrosion-resistant alloy, etc.
 - Program to minimize internal corrosion (e.g. cleaning pigs, inhibitor, biocide, continuous internal coating, etc.)

Flow line operation, continued

- Flow lines must have either interstitial leak detection or preventative maintenance program
 - Submerged lines – ASME B31.4
 - Buried lines – ASME B31.4
 - Aboveground lines – API 570 and ASME B31.4
- Flow lines must be marked
- Documentation of corrosion control and preventative maintenance programs

Aboveground storage tanks

- Two types defined
 - Field-constructed storage tank
 - Shop-fabricated storage tank – “portable”

Field-constructed tank standard

- Three classes of tanks, based on installation date:
 - Before May 14, 1992 – no construction standard
 - May 14, 1992 thru 2008 – API 650, API 12 series, or equivalent standard
 - 2009 or later – API 650, API 12D, or equivalent standard

Field-constructed tank operation

- Maintain and inspect per API 653 or API 12R1
- Some elevated tanks may not require internal inspections
- NACE standard for cathodic protection

Portable tank standard

- Portable tanks installed before 2009 –no construction standard
- Portable tanks installed in 2009 or later:
 - Construction standard: UL 142; API 650; API 12F; STI F921-03; UL 2085, OR
 - Design certified by registered engineer

Portable tank operation

- Maintained and inspected per STI SP01, API 653, or equivalent standard
- Vaulted, self-diked, and double-walled shop-fabricated tanks are defined in regulation, and exempted from some secondary containment requirements

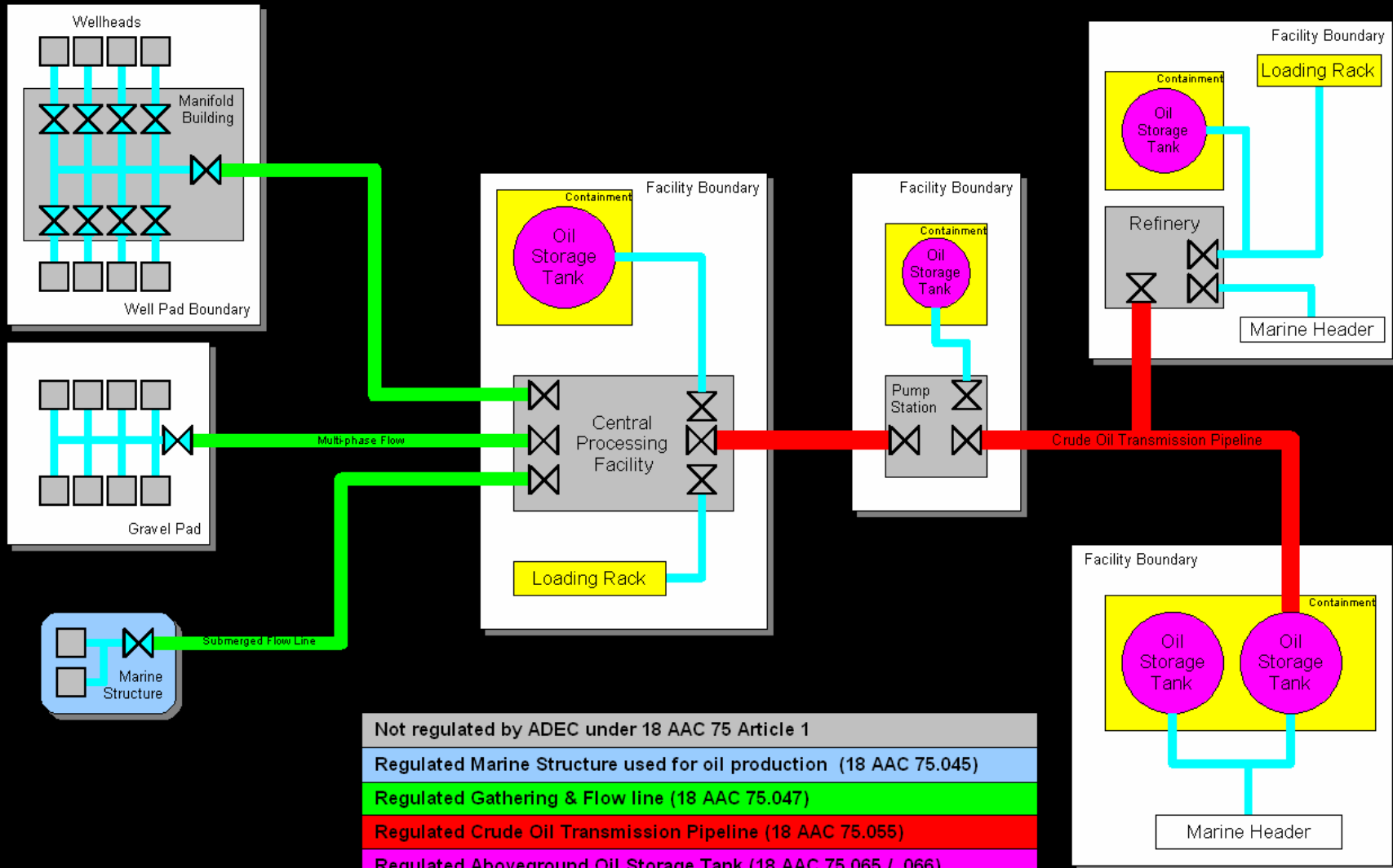
Portable tank overfill protection

- This is a *current* requirement for portable tanks
- 4 methods overfill protection allowed:
 - High liquid level alarms
 - High liquid level automatic pump shutoff devices
 - Means of immediately determining the liquid level of the tank
 - Other system approved by ADEC

Facility oil piping

- New definition: Piping and associated fittings originating from or terminating at a regulated oil storage tank or an exploration or production well
- Three classes of facility oil piping, based on installation date:
 - Before May 14, 1992 – no construction standard applies
 - May 14, 1992 thru 2008 – protective coating and cathodic protection, all welded
 - 2009 or later – ASME B31.3, B31.4, or B31.8, or equivalent standard; cathodic protection per NACE standard
- API 570 inspection standards by 2008

18 AAC 75 Article 1 Regulatory Boundaries



Not regulated by ADEC under 18 AAC 75 Article 1
Regulated Marine Structure used for oil production (18 AAC 75.045)
Regulated Gathering & Flow line (18 AAC 75.047)
Regulated Crude Oil Transmission Pipeline (18 AAC 75.055)
Regulated Aboveground Oil Storage Tank (18 AAC 75.065 / .066)
Regulated Secondary Containment (18 AAC 75.075)
Regulated Facility Piping (18 AAC 75.080)

Effective Dates

- Regulations covering design and construction – go into effect in 2009
- Regulations covering operations and maintenance – go into effect in 2008
- Remaining regulations - December 30, 2006

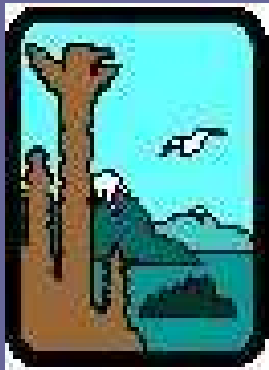
Natural Gas Exploration and Production

- ALL exploration wells in the state must have either
 - An approved c-plan and financial responsibility in place, OR
 - An exemption from c-plan and FR requirements - if AOGCC determines the well will not encounter liquid hydrocarbons that can flow to surface
- Natural gas production facilities don't need c-plans unless storage capacity triggers

*“Consistency requires you to be as ignorant today
as you were a year ago.”*

Bernard Berenson

Best wishes for 2007



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www.dec.state.ak.us/spar/ipp