



## Track 5: Pipelining in Challenge Areas Introduction

PHMSA R&D Forum

Crystal City, Virginia, June 24-25, 2009



## Technical Track Session Objectives



- Develop a consensus agenda of technical gaps & challenges for future R&D.
  - Identify both short and long term research objectives for liquid/gas and transmission and distribution pipelines.
  - Conduct basic road mapping on identified technical gaps so identified research are addressing the need effectively.
  - Provide details of the ultimate research goals so appropriate end users are factored into project scopes.
- Track 5: Pipelining in Challenging Areas
  - Arctic, offshore or areas where the design, materials selection, installation and operation of pipelines are significantly challenged.
  - Any areas where geotechnical, ice mechanics or wind/water currents challenge long-term integrity.

## Technical Track Session Deliverables



- A list of remaining challenges identified
- Identify the top three to five challenges and for each of them
  - identifying if it addresses technology development, consensus standards strengthening or general knowledge.
  - Identify if the challenge is short term (1-5 years) or long term (more than 5 years) in nature.
  - Identify the impacted pipeline type and operation area.
  - Develop road map to meet the challenges – see road mapping guidance

# Road Mapping Guidance



## 1. New or Improved Technology

- a. What pipeline type(s) does the technology target?
- b. What operating environment(s) would the technology operate?
- c. What are any functionality and or performance requirements?
- d. What road blocks or barriers prevent the technology deployment?
- e. What are anticipated targets or timeframes to complete this research?

# Road Mapping Guidance



2. New or Revised Consensus Standards (standards, guidelines or recommend practices)
  - a. Does the need address safety or specification related consensus standards?
  - b. Which standard developing organization and which consensus standard name and number is affected?
  - c. What pipeline type(s) does the consensus standard target?
  - d. What operating environment(s) does the consensus standard target?
  - e. What technical details are necessary and recommended?
  - f. Can any targets or timeframes be identified to complete this research?

# Road Mapping Guidance



3. Creation and Dissemination of General Knowledge
  - a. What pipeline type(s) does the new knowledge target?
  - b. What operating environment(s) does the new knowledge target?
  - c. What technical details are necessary and recommended?
  - d. Can any targets or timeframes be identified to complete this research?

## Agenda for Track 5: Pipelining in Challenge Areas



### **Session 1: Arctic Pipelines**

**Wednesday, June 24, 2009      1:00 PM to 5:00 PM**

- 1:00-1:15 PM: Introduction - Joe Zhou
- 1:15-1:30 PM: A Perspective from US Safety Regulator - Alan Mayberry
- 1:30-1:45 PM: Experience and Learning from MGP Regulatory Review Process - Alan Murray
- 1:45-2:00 PM: Arctic Pipelines Design and Construction - Joe Zhou
- 2:00-2:15 PM: Material, Welding and NDT for Arctic Pipelines - David Horsley
- 2:15-2:40 PM: Questions and Answer Session on All Subject Areas
- 2:40-3:00 PM: Break
- 3:00-5:00 PM: Facilitated Open Discussion

## Agenda for Track 5: Pipelining in Challenge Areas



### **Session 2: Offshore Pipelines**

**Thursday, June 25, 2009**

**8:00 AM to 12:00 PM**

- 8:00-8:15 AM: Overview and direction of session – John O'Brien
- 8:15-8:30 AM: Current PRCI Initiatives Relating to Subsea – Mark Piazza
- 8:30-8:45 AM: Subsea Technology Gaps a Consulting View – Chris Alexander
- 8:45-9:10 AM: Subsea Challenges, Operator Views – BP/Chevron
- 9:10-9:30 AM: Subsea Gaps, PRCI Workshop 2009
- 9:30-9:50 AM: Break
- 9:50 AM-12:00 PM: Facilitated Open Discussion



## Agenda for Track 5: Pipelining in Challenge Areas



### **Session 3: Pipelining in Challenging Areas**

**Thursday, June 25, 2009**

**1:00 PM to 3:00 PM**

- 1:00-1:15 PM: Summary of Arctic Pipeline Session - Joe Zhou
- 1:15-1:30 PM: Summary of Offshore Pipeline Session - John O'Brien
- 1:30-3:00 PM: Facilitated Open Discussion

### **Session 4: Technical Track Report Outs**

**Thursday, June 25, 2009**

**3:15 PM to 4:15 PM**

- 10 min. per technical track report out