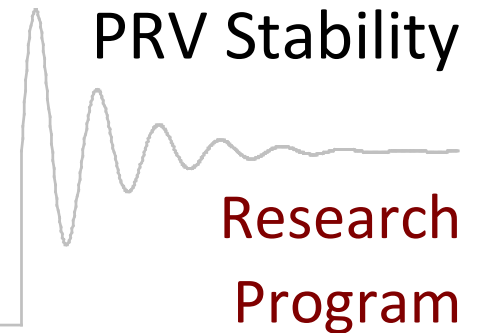


PRV Stability Round II



Project Update
API Spring 2014

Agenda (3:30 to 7:00)

- Brief Project Background
- Participant Updates
 - Review comments from lawyers (3:30 to 4:15)
 - Confirm funding // send Invoicing info to Clark
 - Discuss the peer review (e.g. valve manufacturers)
- Review bids from the bidders (4:30 to 7:00)
 - Presentation from SWRI (IoMosaic will be asked to leave)
 - Presentation from IoMosaic (SWRI will be asked to leave)
 - Participating Company Review

40 Minutes for presentations and questions with a 15 minute transition between the researchers presentations

PRV PERF Round II

- Industry has expressed interest to continue PRV Stability research following completion of PERF I
- PRV stability is complex and PERF I provided insight but did not provide a “practical” model
- A predictive tool is needed to assist in the design and review of PRV installations.
- Develop industry guidance to develop practical tools that
 - Determine if PRV installations are stable
 - Predict consequences (e.g. damage to the valve) of instability
 - Help identify mitigating or corrective actions
- Address outstanding questions & recommend updates to relevant industry documents

Participant Updates (3:30 to 4:15)

- Review comments from lawyers
- Confirm funding
- Discuss peer review
- Review RFP selection criteria

Proposal Summary

- We received three proposals:
 - On Time: SWRI and IoMosaic
 - Late: Stress
- We received “no bids” responses
 - Fauske
 - Siemens
 - Genesis
- No bid received
 - TAMU

Criteria for Selecting the Researcher

Research Organization

- Experience developing practical models for complex phenomena
- Proven experience managing research projects
- Experience modeling dynamic systems
- Previous experience modeling relief systems dynamically

Criteria for Selecting the Researcher

Specific Team Experience

- Experimental design
 - I&E design
 - Statistics
- Relief systems design
- Experience in dynamics

Criteria for Selecting the Researcher

Other Factors

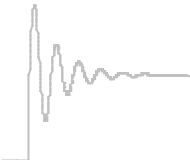
- The details of the proposed model/solution
- Plan to minimize Phase II testing (or maximize value from testing)
- Value of work/model created by contractor

SwRI Presentation

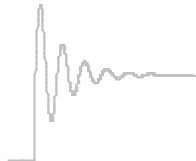
40 Minutes

IoMosaic Presentation

40 Minutes



Participant Discussion 40 Minutes



Voting Requirements

- Voting Requirements
 - Invoicing Information
 - Initial Participation Agreement Comments
- Due by June 30, 2014

Project Deliverables

The primary goals are to develop:

- **A practical tool**, chart, data, and/or equations that can be used by typical engineers to determine the adequacy of relief device stability
- **Stability guidance** to predict whether PRV installations may be subject to instability throughout the opening and closure of the disks
- **Consequence guidance** to determine those characteristics that indicate potential Loss of Containment in the event of instability
- **Corrective guidance** for implementing mitigating or corrective actions to address potentially instable PRV installations

Project Setup Steps

- Draft participation agreements to Organizational Task Group
- Submit strawman RFP(s) to Organizational Task Group for review
- Issue RFQ to potential researchers to develop a budgetary cost estimate
- Contract Coordinator to propose project to PERF
- Issue RFP and compile technical research proposals and submit to Organizational Task Group
- Deliberate on selection of potential researchers and preparation of budget
- Execute participation agreements