

PHMSA CRM Workshop

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Title 49: Transportation

PART 195—TRANSPORTATION OF HAZARDOUS LIQUIDS BY PIPELINE

Subpart F—Operation and Maintenance

§ 195.446 Control Room Management

(c) Provide adequate information

Title 49: Transportation

PART 195—TRANSPORTATION OF HAZARDOUS LIQUIDS BY PIPELINE

Subpart F—Operation and Maintenance

§ 195.446 Control Room Management

(c) Provide adequate information

- Implement API PR 1165 (SCADA Displays)
- Point to Point verification
- Manual Operation Communication
- Backup SCADA test
- Section 5 API RP 1168 (shift hand off)

API/AOPL

- Surveyed pipeline operators and asked for information on the following topics.
 - Interpretation of each section
 - Existing systems in use that the operator believes comply to the regulation
 - Operator plans to comply to the regulation
 - Examples

(c) Provide adequate information

“Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following.”

API RP 1165 (SCADA Displays)

“(1) Implement API RP 1165 (incorporated by reference, *see* §195.3) whenever a SCADA system is added, expanded or replaced, unless the operator demonstrates that certain provisions of API RP 1165 are not practical for the SCADA system used.”

API RP 1165 (SCADA Displays)

- SCADA display design
 - Technical SCADA display design reference
- SCADA display administration
 - Written display standards
 - Change control procedure
 - Maintenance & testing
 - Release management
 - Documentation

API RP 1165 (SCADA Displays)

Interpretation:

The operator needs a written standard on how the graph SCADA displays should look and function on their SCADA systems.

The operator needs to keep records on the design, approval and installation of new or updated SCADA displays.

API RP 1165 (SCADA Displays) Existing Systems

- Process Safety Management Program (OSHA)
 - MOC Requirements for processes and equipment
- FAQ PHMSA
 - MOC for operations, systems and equipment
- Sarbanes–Oxley Act of 2002 (section 404)
 - MOC for software and systems

API RP 1165 (SCADA Displays) Examples

- SCADA display design specifications
 - SCADA vendor display manuals
 - SCADA user manuals
 - Operator controller manuals
- SCADA display change control records
 - MOC system records
 - SCADA change control records

Home - Change Control - Windows Internet Explorer

File Edit View Favorites Tools Help

Meeting 5: November 8-9, 2... Home - Change Control

Change Control Add Change Request Change Control Reports Welcome Site Actio

My Change Requests

There are no items to show in this view.

Active Change Requests

[New Change Request](#)

Request	Sub-Application	Requester	Start Time	End Time	Purpose
+					
+	DATABASECHANGE				
+	EAM				
+	EXPRESSCHANGE				
+	FILEPAWVERS				
+	G2 APPLICATION				
+					
+	INFRASTRUCTURE				
+					
+	KMPROSCCHANGE				
+	LAWSONCHANGE				
+	LIQBMS				
+	MERLINCHANGE				
+	SCADA				
+	PTSCCHANGE				
+	SCADA -				
+	SCADA - Natural Gas				
+	TELECOMMCHANGE				

My Approvals

Status ▲

Request	Title	Due Date
No records to display.		

My Implementation Tasks

Status ▲

Request	Title	Due Date
No records to display.		

Change Control Reports

- ▣ Weekly Change Report
- ▣ Aged Open Requests
- ▣ Unapproved Completed Application Changes
- ▣ Change Control Requests by App Group
- ▣ Change Control Requests by Application
- ▣ Approvers List
- ▣ Approvers List by App Group
- ▣ Approvers List by User
- ▣ Change Control Reports
- ▣ Online Request Viewer

API RP 1165 (SCADA Displays) Plans

- Record audit procedure

Point-to-Point

“(2)Conduct a point-to-point verification between SCADA displays and related field equipment when field equipment is added or moved and when other changes that affect pipeline safety are made to field equipment or SCADA displays.”

Point-to-Point

Interpretation:

The operator must have maintenance and testing standards that state field devices are tested to the SCADA graphic display during commissioning.

The operator's maintenance records should show and record that testing was completed.

Point-to-Point Existing Systems

- Written procedures
 - Part of OQ task training
 - In service test procedure
 - In service check list
- Documentation for Point to Point testing
 - Program Maintenance System
 - SCADA change control
 - Control room controller shift log system

Point-to-Point Plans

- Enhancement of record detail
- Enhancement of record retention period
- Enhancement of record retrieval and reporting
- Enhancement of record auditing

Manual Operation Communication

“(3) Test and verify an internal communication plan to provide adequate means for manual operation of the pipeline safely, at least once each calendar year, but at intervals not to exceed 15 months.”

Manual Operation Communication

Interpretation:

A case where both the primary and backup SCADA communication is out of service and the operator will run pipeline segments by placing personnel at remote facilities to control the local equipment under the direction of some central control authority.

Manual Operation Communication Existing Systems

- Communication plan during technology failure
 - Written plan
 - Section of disaster recovery plan
 - Section of business continuity plan
 - Part of pipeline operating procedures
 - Periodic plan testing
 - Table top exercise
 - Field test
 - Records of testing

Manual Operation Communication Plans

- Enhancement of records of testing
- Record audit procedure

Backup SCADA Test

“(4) Test any backup SCADA systems at least once each calendar year, but at intervals not to exceed 15 months.”

Backup SCADA Test

Interpretation:

The operator needs to test the backup SCADA system and keep records of the tests.

Backup SCADA Test Existing Systems

- Written Procedure
 - SCADA operating manual
 - Disaster recovery plan
 - Business continuity plan
 - Pipeline operating procedures
- Records
 - SCADA event log
 - Controller shift log book
 - SCADA change control tracking system

Backup SCADA Test Plans

- Record audit procedure

Section 5 API RP 1168

“(5) Implement section 5 of API RP 1168 (incorporated by reference, *see* §195.3) to establish procedures for when a different controller assumes responsibility, including the content of information to be exchanged.”

Section 5 API RP 1168

- Guidelines For Shift Turnover
 - Shift Turnover Procedure
 - Shift Turnover Meeting
 - Information Exchange
 - Operating conditions
 - Operating information / procedure change
 - Status of maintenance actives
 - Status of incidents
 - Alarm review

Section 5 API RP 1168

Interpretation:

The operator needs to add instructions to Controller manuals on conducting a Controller shift hand off.

The operator needs a record keeping system that will record information to confirm that Controllers are following the shift change procedure.

Section 5 API RP 1168

Existing Systems

- Written procedure
 - Operations manual
 - Controllers manual
- Records
 - Check off sheet on paper
 - Check off sheet Web based
 - Log Book Web based (password access)

Team Leader Console

Location [Alpha order](#)
Pipeline
Comment (Max. Length 500)
High Importance

All | Baton Rouge | Kola | Fluker | Osyka |
 Select a Pipeline | MRA | CNCPL | GAP | GNRFY

Use to mark for high importance

Pipeline: 14W		
Location	Comment	Date
Greensboro	All outbound boosters and pumps locked out when an aparent electrical surge occured at 0225. Also received EAD in S. Manifold. O&M reset the units but I advised her that an electrician needed to be called out to check everything before we would restart. Kelly Joyce is enroute ETA is 0400. 8RK and 14W are currently down. Kept CNG running	11/05/2010 04:33:27
Pipeline: CNF		
Location	Comment	Date
Collins	Work completed at aprox 18:15. Line was restarted at aprox 1900	11/05/2010 04:30:50
Helena	Prover was calibrated successfully. Rick finished up about 0200	11/05/2010 04:29:59
Pipeline: PGF		
Location	Comment	Date
Pascagoula	U1A on the PGF is tagged out until Chevron confirms they are finished with their work	11/05/2010 04:36:31
Pipeline: Tankage		
Location	Comment	Date
Greensboro	Tank 172 is kicking out. Receiving from transmix	11/05/2010

Section 5 API RP 1168 Plans

- Record retention system
- Record audit procedure

Summary

- A number of operators believe they have systems in place today that will comply with the regulation.
- Operators believe the regulation is unambiguous.
- There are questions about record keeping so the operator can demonstrate compliance with the regulation.

Questions

- How long should operators plan to retrain testing records?
- Are we required to get test records from former operators of acquired systems?
- Are database or electronic records adequate to demonstrate compliance?