

# A Quick Start to CCPS PERD Participation



# Why Join PERD

**With a small investment and minimal data**

**PERD enables user companies to leverage existing IT and MI systems to collect and submit data resulting in:**

- **Improved Reliability**
- **Identification of “low hanging fruit” for immediate impact**
- **Minimization of unforeseen losses**
- **Increased Effectiveness for**
  - **Information Systems Technology**
  - **Regulatory Compliance**

# Why Join PERD

**With a small investment and minimal data**

**Your maintenance & reliability data could be**

- **Automatically uploaded,**
- **Compared against whole-industry data, and**
- **Made available to you with clear, statistically validated guidance**

# Minimal Data Provides Initial Value

- Tiered Data Quality Concepts
  - Applied to Inventory Population & Event Data
    - Tier 1 – Whatever data exists
    - Tier 2 – Improved usefulness
    - Tier 3 – Full Rigor – Most upside usefulness
- Allows a staged implementation work process
  - Getting started requires minimal effort
- New participants given startup assistance for their first data set that they select as part of the initiation fee

# Inventory Data Tier Concept

➤ Tier 1 – Any company would have at least:

- **Location Address**

- Site ID
- Plant ID
- Unit ID (If not available use UNKNOWN)
- Tag
- System ID (If not available use Tag)

- **Equipment Group** (e.g. Instrumentation)

- **Equipment System** (e.g. Transmitter)



Equip Class

# Inventory Data Tier Concept

## ➤ Tier 2

- **All tier 1 data** plus following **data user chooses to enter**
- Equipment Type
- Equipment Subtype
- Manufacturer
- Model Number
- Output Signal Type or Set Point (Only if applicable)

## ➤ Tier 3

- **All Tier 1 Data**
- **Equipment Type**
- **Equipment Subtype**
- Plus additional tier 2 and / or 3 **data user chooses to enter**

# Event Data Tier Concept

## Tier 1 Failure Data – Low Resolution

Field Name	Description
Failure	<ul style="list-style-type: none"><li>• Equipment failure</li></ul>

## Tier 2 Failure Classification Data – Medium Resolution

Field Name	Description
Failure Classification	<ul style="list-style-type: none"><li>• Dangerous Failure<ul style="list-style-type: none"><li>○ Dangerous detectable failure</li><li>○ Dangerous undetectable failure</li></ul></li><li>• Safe Failure<ul style="list-style-type: none"><li>○ Safe detected failure</li><li>○ Safe undetectable failure</li></ul></li></ul>

## Tier 3 Failure mode data – Full Resolution

# New Participant Startup Assistance

- Services (one time)
  - Assist downloading of PERD Software to company server
  - Assist company convert their data to PERD format
    - See data format embedded file
  - Import data set to company server software and industry database
  - Facilitate analysis of data set



Data Format

# Data Entry Methods

- Data can be electronically transferred from spreadsheets, equipment manufacturers or asset management companies such as:
  - Excel
  - SAP
  - Swan Associates
  - Meridium
  - Matrikon
- Manual entry/edit

**Event Data - CCPS - Demo Site 1 - Demo Plant 1 Demo Plant 1 - Unknown - RV-1 - RV-1**

* Event Date	<input type="text" value="8/25/2010"/> (MM/DD/YYYY)	Valve Reset	<input type="text" value="NVA"/>
Event Time	<input type="text" value="12:00 AM"/> (HH:MI AMPM)	Reseat Pressure	<input type="text"/> psig
External Leakage	<input type="text" value="NVA"/>	Leakage Following Reseat	<input type="text" value="NVA"/>
Visual Inspection		Actual Hours Spent	<input type="text"/>
Inlet	<input type="text"/>	Disposition Following Inspection/Test	<input type="text"/>
Outlet	<input type="text"/>	Additional Information	<input type="text"/>
Seat Leakage	<input type="text" value="NVA"/>		
Leak Pressure	<input type="text"/> psig Ratio <input type="text"/>		
Valve Lift	<input type="text" value="Yes"/>		
Lift Pressure	<input type="text" value="175"/> psig		
Max. Test Pres.	<input type="text" value="175"/> psig		
Max Test Pressure Ratio	<input type="text" value="1.75"/>		
<input type="checkbox"/> Could Not Test			

**Failure Modes**

Fail To Open

### Example: Relief Valve Proof Test Manual Data Input Form

Note: Some fields are automatically populated; other fields are available for further data entry (automatic or manual) when user is ready to take advantage of additional PERD capabilities. Lift pressure is compared to set pressure to determine lift ratio



# For More Information

## Contact

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