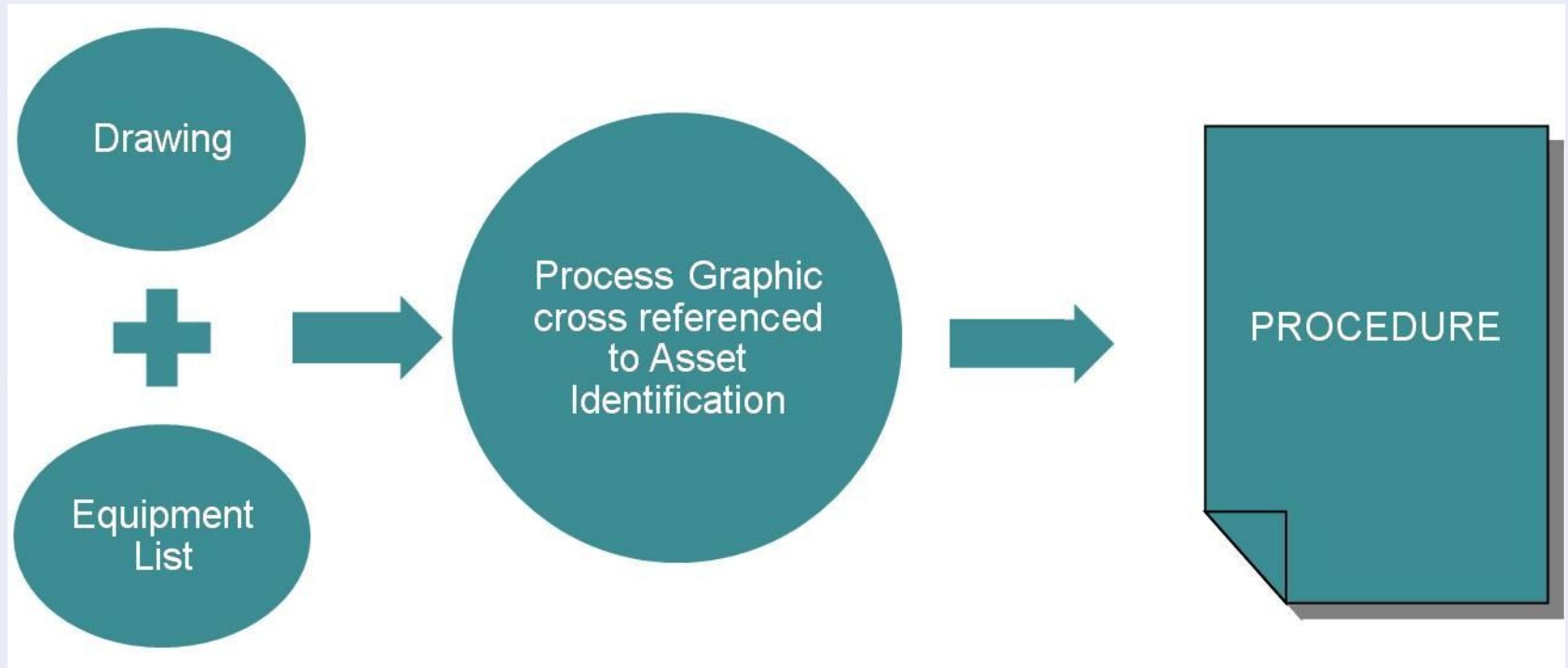


Knowledge & Skills Training

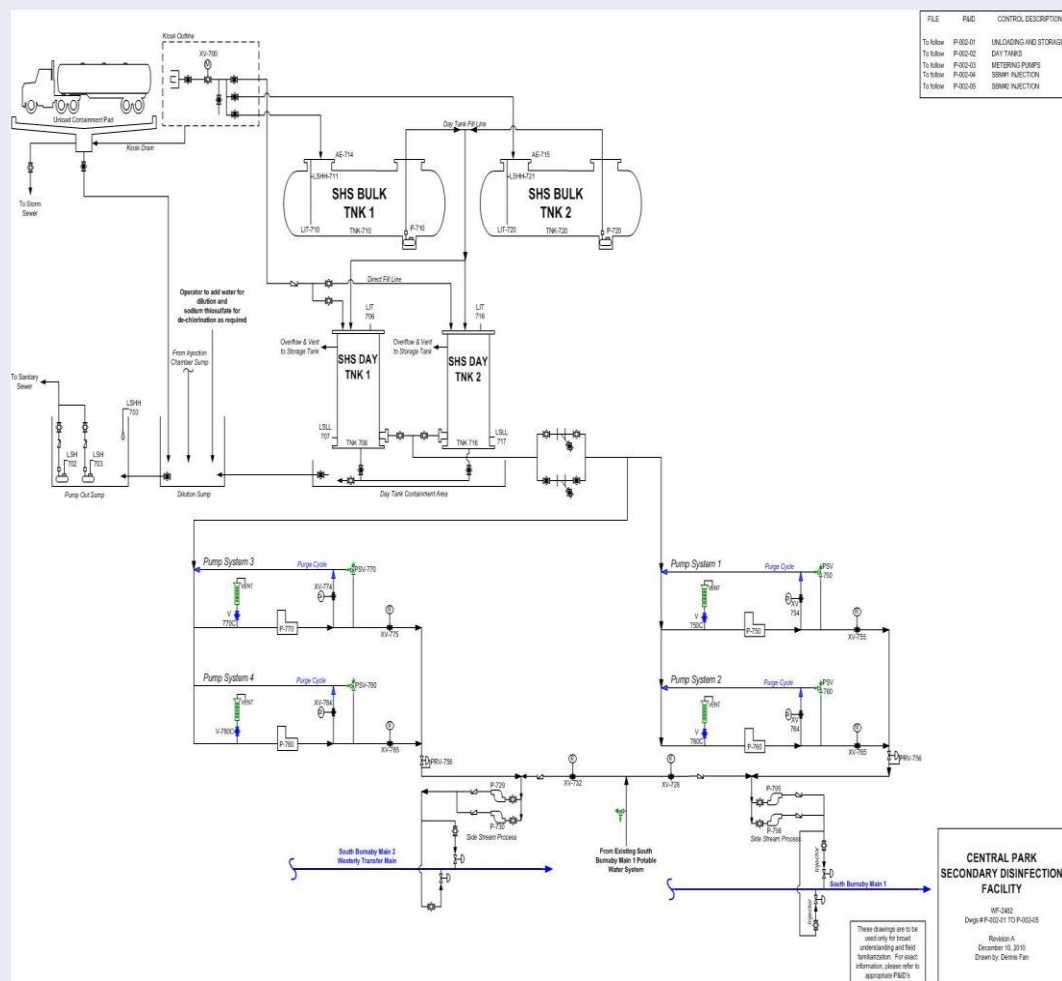


metro
vancouver

Procedure Development



Water Treatment Example





Operations Procedure

Procedure Title: Return Hypochlorite Pump to Service

2. Technical Data Section

Valves and Equipment

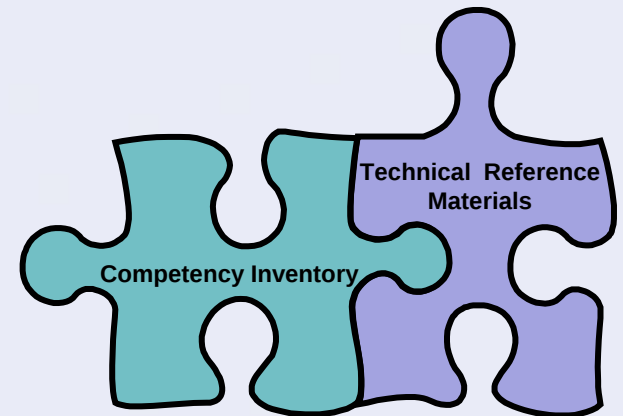
Refer to P&ID No: P-002-03

Description	Equipment No.	Normal Field Status	Notes
SHS MET PUMP 1	P-750	auto	
SHS MET PUMP 1 HOA	HS-750	auto	
SHS MET PUMP 1 DISH XV	XV-755	auto	
SHS MET PUMP 1 DISH XV OCA	HS-755	auto	
SHS MET PUMP 1 PURGE VLV	XV-754	auto	
SHS MET PUMP 1 SUCT VLV	HV-750A	auto	
SHS MET PUMP 1 DISH VLV	HV-750B	auto	
SHS MET PUMP 1 PSV DISH VLV	V-750F	open	
SHS MET PUMP 1 PURGE VLV	HV-750G	auto	
SHS MET PUMP 1 CALB VENT VLV	V-750E	closed	
SHS MET PUMP 1 CALB ISOL VLV	V-750C	closed	
SHS MET PUMP 1 CALB DRAIN VLV	V-750D	closed	
SHS MET PUMP 2	P-760	auto	
SHS MET PUMP 2 HOA	HS-760	auto	
SHS MET PUMP 2 DISH XV	XV-765	auto	
SHS MET PUMP 2 DISH XV OCA	HS-765	auto	
SHS MET PUMP 2 PURGE XV	XV-764	auto	
SHS MET PUMP 2 SUCT VLV	HV-760A	auto	
SHS MET PUMP 2 DISH VLV	HV-760B	auto	
SHS MET PUMP 2 PSV DISH VLV	V-760F	open	
SHS MET PUMP 2 PURGE VLV	HV-760G	open	
SHS MET PUMP 2 CALB VENT VLV	V-760E	closed	
SHS MET PUMP 2 CALB ISOL VLV	V-760C	closed	
SHS MET PUMP 2 CALB DRAIN VLV	V-760D	closed	
SHS MET PUMP 3	P-770	auto	
SHS MET PUMP 3 HOA	HS-770	auto	

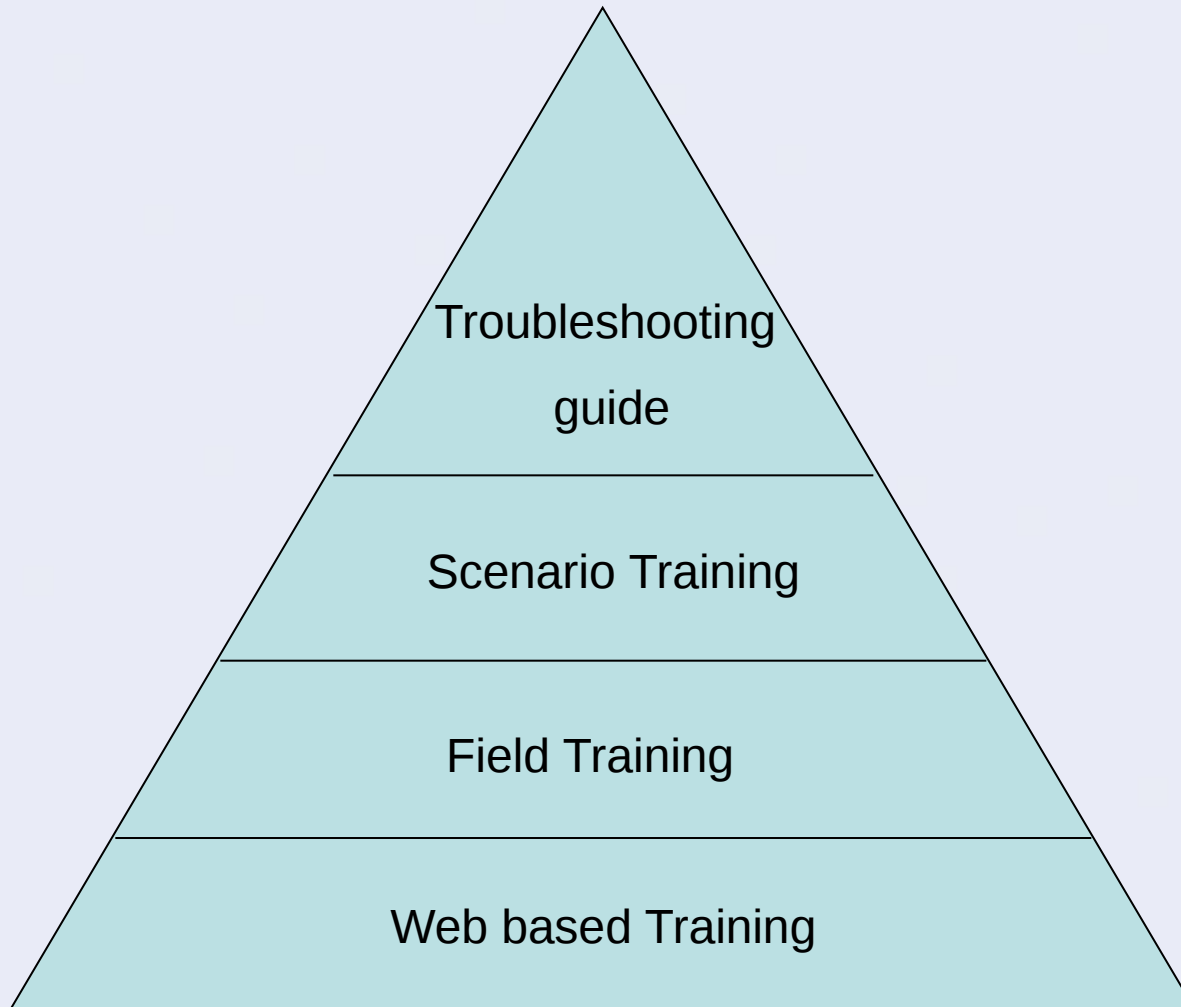
How are they learning what they need to know?

Develop training curricula and prepare inventory of technical reference materials and expertise

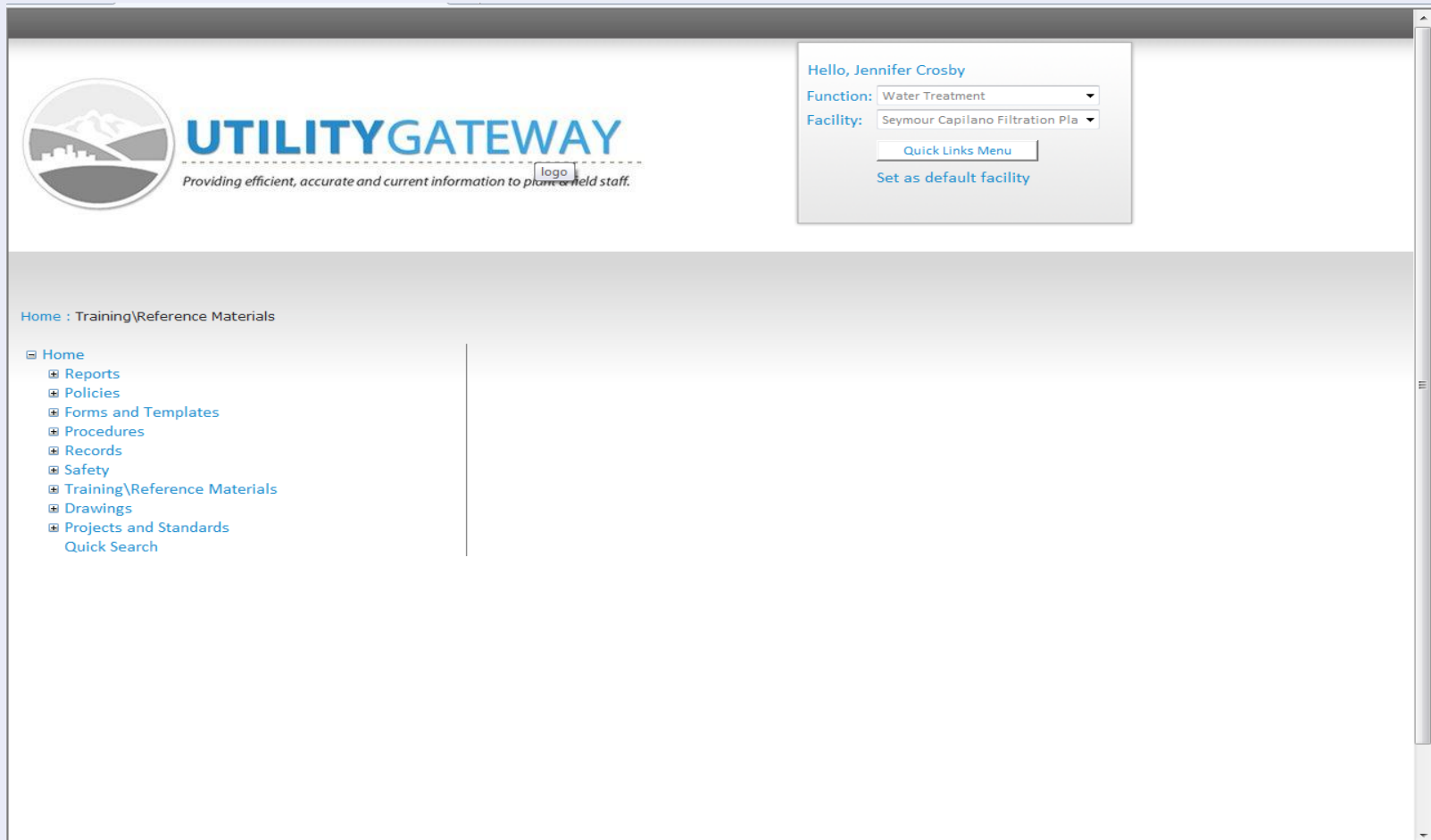
- Drawings, equipment lists, design information
- Training materials
- Procedures
- Troubleshooting tools
- Access-to-information tools
- Expertise listings



SCFP Blended Training Program



Access to Documents



The screenshot displays the UTILITYGATEWAY website. The header features a logo on the left and the text "UTILITYGATEWAY" in large blue letters, with the tagline "Providing efficient, accurate and current information to plant and field staff." below it. On the right, a user profile box shows "Hello, Jennifer Crosby", a "Function:" dropdown set to "Water Treatment", and a "Facility:" dropdown set to "Seymour Capilano Filtration Pla". Below these are buttons for "Quick Links Menu" and "Set as default facility". The main content area has a breadcrumb trail "Home : Training\Reference Materials" and a left-hand navigation menu with expandable items: Home, Reports, Policies, Forms and Templates, Procedures, Records, Safety, Training\Reference Materials, Drawings, Projects and Standards, and Quick Search.

UTILITYGATEWAY
Providing efficient, accurate and current information to plant and field staff.

Hello, Jennifer Crosby
Function: Water Treatment
Facility: Seymour Capilano Filtration Pla
Quick Links Menu
Set as default facility

Home : Training\Reference Materials

- Home
- Reports
- Policies
- Forms and Templates
- Procedures
- Records
- Safety
- Training\Reference Materials
- Drawings
- Projects and Standards
- Quick Search

Web Based Training

OPERATOR SUITE™

Welcome, T.Jivraj. | [Logout](#)


METRO VANCOUVER

[View My Course Tree](#)
[View My Course Report](#)
[View My Assessments](#)
[View My Verification](#)
[Go to OS Administrator](#)
[Open Online Tutorial](#)
[Edit My Personal Profile](#)

- ▼ Metro Vancouver
 - ▼ Water Treatment
 - ▼ Seymour - Capilano Filtration Plant
 - SCFP - 003: Source Supply and Inlet Blending
 - SCFP - 004: Coagulation and Flocculation
 - SCFP - 005: Filtration and Backwash
 - SCFP - 006: Disinfection
 - SCFP - 007: Corrosion Control
 - SCFP - 008: Clearwells
 - SCFP - 009: Treated Water Distribution
 - SCFP - 010: Washwater Recovery and Treatment
 - SCFP - 011: Residuals Handling
 - SCFP - 012: Activated Treatment System
 - SCFP - 015: Geothermal System

Field Training

- Walkthrough Guides
 - provides a structural framework for performance-based training in the field
 - simulates actual performance under typical working conditions



Assessment

- Assess knowledge and skill
- Match to procedure criticality
- Assessment should simulate actual performance under typical working conditions
- Reassess critical procedures



Scenario Training

- Themes
- Topics
- Learning objectives
 - Apply knowledge and thinking creatively
 - Team learning
 - Team development
 - Very small class size (from 3 and up)
- Train-the-Trainer Seminars



- **Dynamic structure to allow flexibility to re-initiate course but with new scenarios as the plant continues to operate**

Workshop Facilitator's Guide
Seymour Capilano Filtration Plant Operator Training: Process Operation Optimization
Coagulation and Flocculation - Scenario 1: Increasing Particle Counts in Flocculation Influent

Duration: 30 minutes
Created by: SKJC
Rev: 00
Creation Date:

Activity	Notes
1 Give a brief overview of the Coagulation and Flocculation System. Slide 1 – Entire facility Slide 2 – Coagulation and Flocculation System Slide 3 – Coagulation System Slide 4 – Flocculation System	
2 Review theme learning objectives for the scenario. Slide 5 – Global Learning Objectives	
3 Introduce scenario: You have just noticed that the particle counts in the flocculation effluent seem to be increasing dramatically. What would you do?	
4 Allow group to brainstorm for 5 – 10 minutes. Possible prompt(s) to help discussion if stalled: What are some of the possible causes of this? What are some of the potential implications of this (e.g., downstream effects)?	
There are a number of possible causes and effects for this part of the scenario. Once the entire scenario is complete, review any possible causes and effects that the learners may have missed (refer to activity 1.2).	

Revision Number: 0 Page 1 Date: August 2007

Troubleshooting Guides

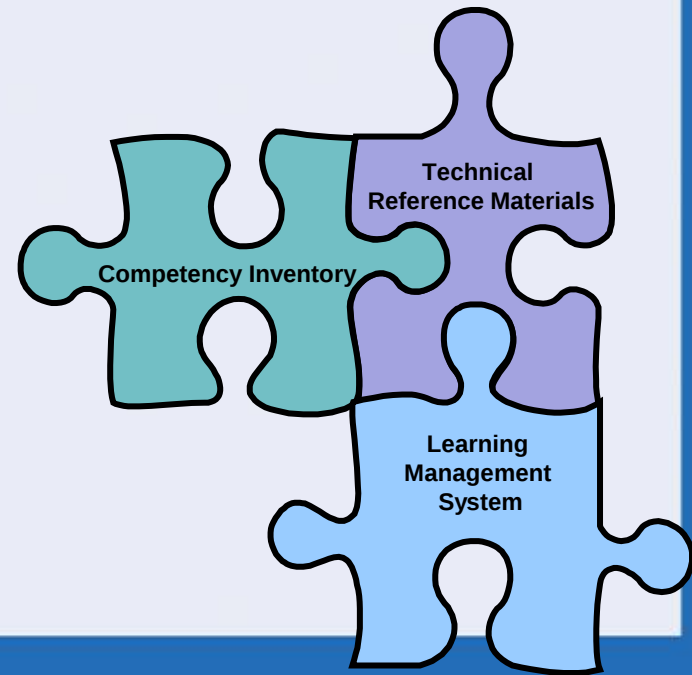


Area	Problem	Possible Causes
Source Supply and Inlet Blending	Low chlorine residual	no pumps online
Coagulation and Flocculation - Coagulation	Incorrect FIT reading	power failure
Coagulation and Flocculation - Flocculation	Incorrect PIT reading	faulty PRVs
Filtration and Backwashing	Low GW PS Lynn Valley pressure	
Disinfection - UV Disinfection	Reverse GW PS Lynn Valley flow	
Disinfection - Sodium Hypochlorite System	Associated Equipment	
Corrosion Control - Lime System	F-FIT-60-028B1	
Corrosion Control - Carbon Dioxide System		
Clearwells - Clearwells		
Treated Water Distribution - Treated Water Distribution		
Plant Drainage and Overflows - Calcium Thiosulphate System		
Washwater Recovery and Treatment		
Residuals Handling		
Actiflo Treatment - Actiflo Treatment		
SCFP Plant Wide Equipment - All Areas		
		Possible Solutions
		verify CDACS in normal field status
		start pumps

How do we know they know?

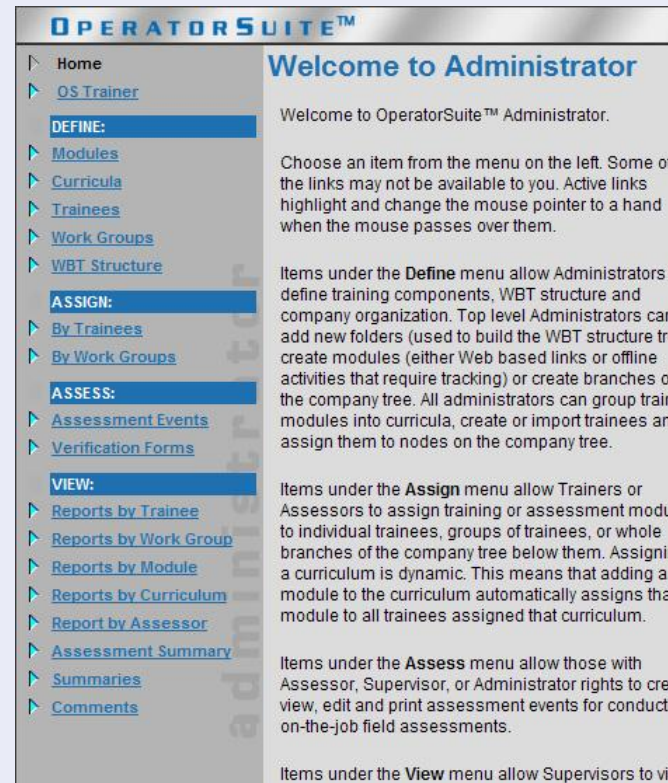
Track Progress Using a Learning Management System

- Assign training using curricula
- Use training delivery platform(s)
- Include competency assurance tools



Program Administration

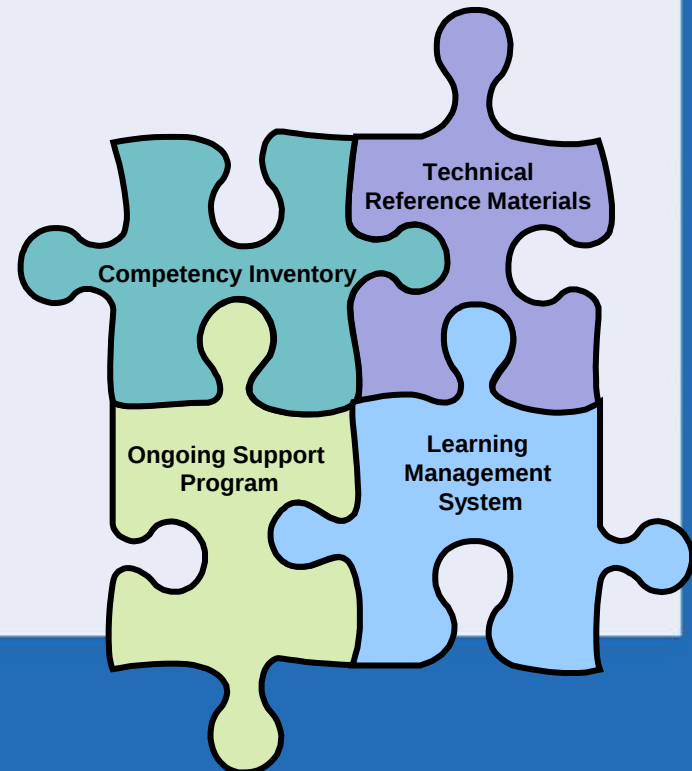
- Technical Administration
- Content Administration
- Learning Administration



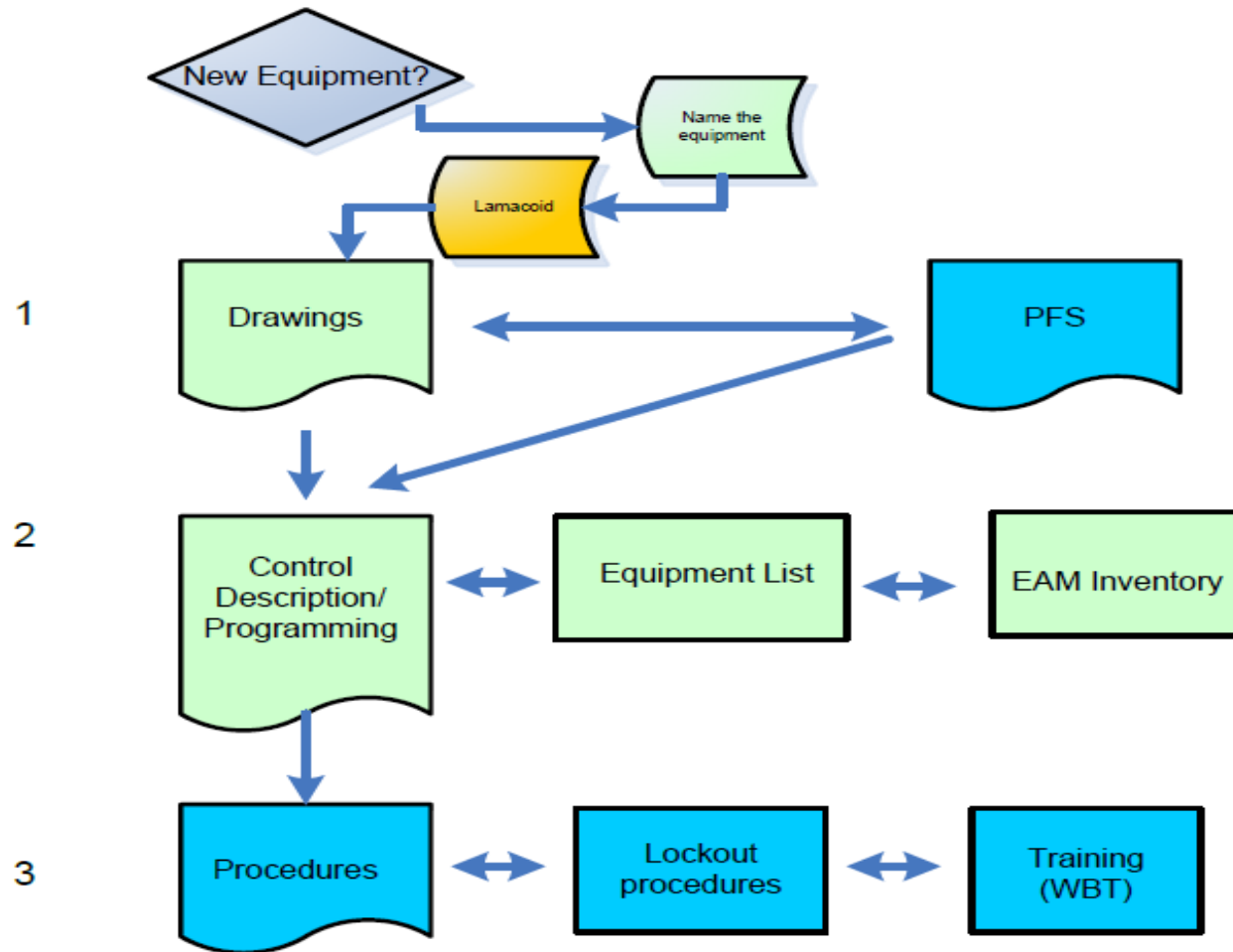
How do we manage changes in what they need to know?

Ongoing Support Program

- Develop new materials
- Update existing materials
- Support learning management system



Management of Change



Management of Change

