

Evolution of a Strong In-House Training Team

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Evolution of a Strong In-house Training Team

- Colorado Springs Utilities Quick Facts

- Four service utility:

- Electric
- Natural Gas
- Water
- Wastewater

- Population: 426,881

- Metered accounts: ~ 820,000

- Employees (FTE's): 1826

- Municipally owned



Training and Development Staffing 2001

	Electric	Gas	Water	S&H	Financial	HR	CRS	IT	Total Positions
Manager	1		1			1			
Supervisor								2	
Staff	3	2	3	1	2	4	7	11	
Admin	1	1				3		1	
	5	3	4	1	2	8	7	14	44

Evolution of a Strong In-house Training Team

- Goals
 - Link learning to business strategies
 - Develop a shared mindset across the organization that learning is a process
 - Move from instructor-led learning to multiple formats to include distance learning
 - Encourage leaders to be involved with and facilitate learning
 - Create measurement system to evaluate success and contribution to achieving business strategy

University of Springs Utilities 2004

	Technical Craft Development	Organizational and Professional Development	Instructional Design	Administration	Total Positions
Manager				1	
Supervisor	1	1	1		
Staff	8	5	6		
Admin				1	
	9	6	7	2	24

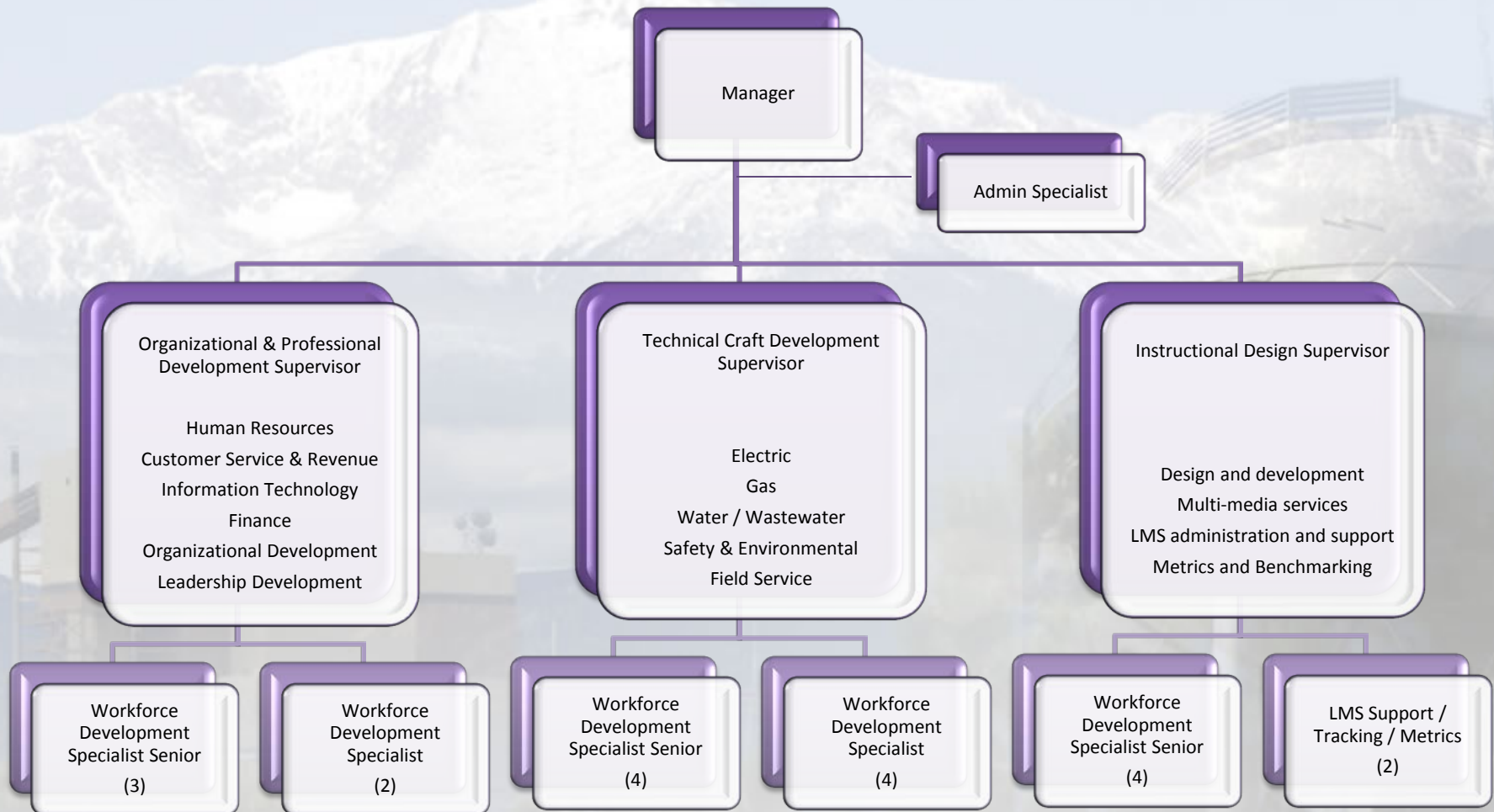
- Benefits
 - Standardization of the training and development approach
 - Implementation of enterprise learning management system
 - Transition of many instructor-led courses to web-based
 - Ability to deliver virtual training
 - Elimination of redundant courses across organizational and service lines
 - O&M non-labor budget reductions from ~3.2 M to ~538 K
 - Staffing reductions from 44 to 28 positions
 - Multi-media training services

Evolution of a Strong In-house Training Team

- Continued automation and centralization
 - Further staff reductions from 28 to 24
 - Further budget reductions from ~538K to ~420 K
 - Introduction of virtual learning

Evolution of a Strong In-house Training Team

University of Springs Utilities Structure



- Technical training challenges
 - Build and maintain a safe, highly competent, and productive workforce
 - Ensure training impacts business results
 - Achieve uniform performance standards
 - Prudently expedite skill acquisition
 - Maintain job knowledge / skill requirements
 - Capture critical knowledge

Skill Acquisition & Maintenance Program



Program Goals & Objectives

- Provide consistent and appropriate standards for workforce development
- Provide optimum safety and competence

Standardized Training & Development Approach

Skill Acquisition & Maintenance Program



Workforce Development Manual

- Overview of the program
- Approach to workforce development
- Roles and responsibilities
- Employee progression
- Content development
- Orientation
- Training delivery
- Evaluation administration/scoring guidelines
- Program administration and maintenance

Skill Acquisition & Maintenance Program



Job Tasks Analysis

- Lists all tasks a group is responsible for performing
- Broken down into functional areas of responsibility or other functional groupings (modules)
- Foundation** for all other components of program

Skill Acquisition & Maintenance Program



Skill Maps

- Demonstrates progression of program training requirements
- Ensures training progresses from basic to complex concepts
- Identifies time of completion

Skill Acquisition & Maintenance Program



Training Materials

- OJT Instructor Guide (IG)** – provides information necessary to prepare student for Knowledge Assessment and TPE. Used in conjunction with procedures, skills and knowledge documents, and other procedural documentation to train employees.
- OJT (SG) Student Guide** – provides the student with prerequisites, required materials, references, knowledge questions, and tasks.
- Knowledge Assessment (KA)**- formal, proctored test measuring the employee's knowledge level on a subject.
- Task Performance Evaluation (TPE)** –guides the evaluator in assessing the student's knowledge and skill level during task performance.

***Successful completion of instruction, Knowledge Assessment and Task Performance Evaluation = qualification*

- Tools** – University Learning Station (ULS) and Training Program Sites (SharePoint)

Standardized Training & Development Approach

Skill Acquisition & Maintenance Program



Implementation and Maintenance

- Develop and implement Train the Trainer program
- Place employees in program – ULS curriculum
- Conduct annual audits/reviews of program
- Maintain program/material modifications

Training Program Site (SharePoint)

General Information



The screenshot shows a SharePoint site for the Drake Plant System Operator Apprenticeship Program. The top navigation bar includes a 'Home' button and a search bar. The left sidebar contains links to Libraries, Site Pages, Shared Documents, Lists, Calendar, Tasks, Discussions, and Team Discussion. The main content area features a title 'Drake Plant System Operator Apprenticeship Program' and a tabbed interface with 'General Information' selected. The 'Program Overview' section describes the program and lists its components: On the job training (OJT), Knowledge Assessments (KA), and Task Performance Evaluations (TPE) with a link to 'TPE Guidelines'. The 'Orientation' section states that the first step is orientation conducted by USU. A photograph of the Drake Plant is shown on the right side of the page.

Groups ▸ Drake Plant System Operator Apprenticeship Program ▸ Home
This site houses the program materials for the Drake Plant System Operator Apprenticeship Program.

Home

Search this site...

Libraries
Site Pages
Shared Documents

Lists
Calendar
Tasks

Discussions
Team Discussion

Drake Plant System Operator Apprenticeship Program

General Information | Workforce Development Manual | Skill Map & JTA | Program Materials

Program Overview

The Drake Operations Department prepares Plant System Operators (PSO) through the Drake PSO Apprenticeship Program. The participant(s) progress through the program by successfully fulfilling the requirements in the 10 block (5 year) program.

These blocks include:

- On the job training (OJT)
- Knowledge Assessments (KA)
- Task Performance Evaluations (TPE) - [TPE Guidelines](#)

Orientation

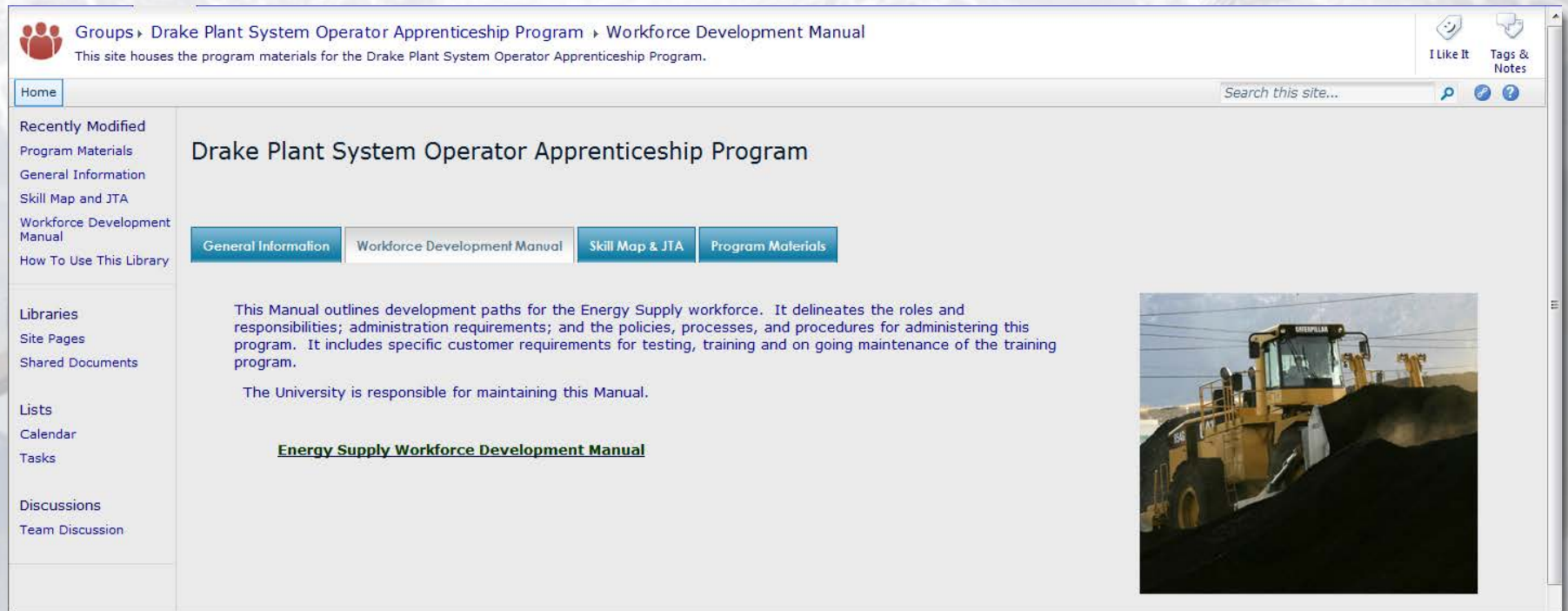
The first step in the apprenticeship is the orientation conducted by USU. In this orientation, USU will work closely with the apprentice to:

- Register with the DOI



Training Program Site (SharePoint)

Workforce Development Manual



The screenshot shows a SharePoint site for the Drake Plant System Operator Apprenticeship Program. The top navigation bar includes a 'Groups' dropdown, the current path 'Drake Plant System Operator Apprenticeship Program > Workforce Development Manual', and a description: 'This site houses the program materials for the Drake Plant System Operator Apprenticeship Program.' On the right, there are 'I Like It' and 'Tags & Notes' icons, and a search bar labeled 'Search this site...'. The left sidebar contains a 'Home' button and several menu categories: 'Recently Modified' (Program Materials, General Information, Skill Map and JTA, Workforce Development Manual, How To Use This Library), 'Libraries' (Site Pages, Shared Documents), 'Lists' (Calendar, Tasks), and 'Discussions' (Team Discussion). The main content area is titled 'Drake Plant System Operator Apprenticeship Program' and features four tabs: 'General Information' (selected), 'Workforce Development Manual', 'Skill Map & JTA', and 'Program Materials'. The 'General Information' tab displays a paragraph about the manual's purpose and a link to the 'Energy Supply Workforce Development Manual'. A photograph of a yellow Caterpillar wheel loader is positioned on the right side of the content area.

Groups > Drake Plant System Operator Apprenticeship Program > Workforce Development Manual
This site houses the program materials for the Drake Plant System Operator Apprenticeship Program.

Home Search this site...

Drake Plant System Operator Apprenticeship Program

General Information Workforce Development Manual Skill Map & JTA Program Materials

This Manual outlines development paths for the Energy Supply workforce. It delineates the roles and responsibilities; administration requirements; and the policies, processes, and procedures for administering this program. It includes specific customer requirements for testing, training and on going maintenance of the training program.

The University is responsible for maintaining this Manual.

[Energy Supply Workforce Development Manual](#)



Training Program Site (SharePoint)

Skill Map & JTA



The screenshot shows a SharePoint site for the Drake Plant System Operator Apprenticeship Program. The top navigation bar includes a 'Groups' link and the current path: 'Drake Plant System Operator Apprenticeship Program > Skill Map and JTA'. Below this, a description states: 'This site houses the program materials for the Drake Plant System Operator Apprenticeship Program.' On the right, there are 'I Like It' and 'Tags & Notes' icons, and a search bar labeled 'Search this site...'. The left sidebar contains a 'Home' button and a list of links: 'Recently Modified', 'Program Materials', 'General Information', 'Skill Map and JTA', 'Workforce Development Manual', 'How To Use This Library', 'Libraries', 'Site Pages', 'Shared Documents', 'Lists', 'Calendar', 'Tasks', 'Discussions', and 'Team Discussion'. The main content area has a title 'Drake Plant System Operator Apprenticeship Program' and a set of four buttons: 'General Information', 'Workforce Development Manual', 'Skill Map & JTA' (which is highlighted), and 'Program Materials'. Below the buttons, the 'Skill Map' section is displayed, followed by a 'Guidelines' section. A large image of the Drake Plant is shown on the right side of the main content area.

Groups > Drake Plant System Operator Apprenticeship Program > Skill Map and JTA
This site houses the program materials for the Drake Plant System Operator Apprenticeship Program.

Home Search this site...

Drake Plant System Operator Apprenticeship Program

General Information Workforce Development Manual Skill Map & JTA Program Materials

Skill Map

- Demonstrates progression of training program requirements
- Ensures training progresses from basic to complex concepts
- Describes minimum qualification requirements for each classification

Guidelines

- All workbooks must be completed within a block before any TPEs are attempted.
- All of the requirements for each block must be completed within one year. However, an apprentice may also complete requirements from future blocks if the opportunity arises.



Training Program Site (SharePoint)

Program Materials



The screenshot shows a SharePoint site for the "Drake Plant System Operator Apprenticeship Program". The page title is "Drake Plant System Operator Apprenticeship Program" and the subtitle is "Program Materials". The page content is organized into a grid of links for training materials, including "Block 1" through "Block 10", "Plant Ops Procedures", "System Drawings", and "Test Procedures". A sidebar on the left contains navigation links for "Home", "Recently Modified", "Program Materials", "General Information", "Skill Map and JTA", "Workforce Development Manual", "How To Use This Library", "Libraries", "Site Pages", "Shared Documents", "Lists", "Calendar", "Tasks", "Discussions", and "Team Discussion". A search bar is located in the top right corner, and a "Search this site..." button is in the top left corner. A photo of a large industrial facility is displayed on the right side of the page.

Groups » Drake Plant System Operator Apprenticeship Program » Program Materials
This site houses the program materials for the Drake Plant System Operator Apprenticeship Program.

Home Search this site...

Drake Plant System Operator Apprenticeship Program

General Information Workforce Development Manual Skill Map & JTA Program Materials

Block 1	Block 2	Block 3	Block 4	Block 5
Block 6	Block 7	Block 8	Block 9	Block 10

Plant Ops Procedures System Drawings

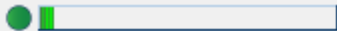
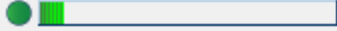
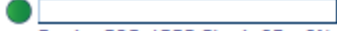
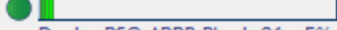
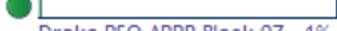
Test Procedures

Photo of a large industrial facility, likely the Drake Plant.

Training Program Curriculum - ULS

Curricula

[Grant Curriculum](#) | [Add Curriculum](#) | [Print](#) | [Export](#) | [Modify Table](#)

Name	Selected Path (% Complete)	Status	Assigned By	Acquired On Date	Actions
Drake PSO APPR Block 01 Curriculum	 Drake PSO APPR Block 01 - 7% Completed	In progress	Test Curriculum 2		Actions
Drake PSO APPR Block 02 Curriculum	 Drake PSO APPR Block 02 - 5% Completed	In progress	Test Curriculum 2		Actions
Drake PSO APPR Block 03 Curriculum	 Drake PSO APPR Block 03 - 13% Completed	In progress	Test Curriculum 2		Actions
Drake PSO APPR Block 04 Curriculum	 Drake PSO APPR Block 04 - 8% Completed	In progress	Test Curriculum 2		Actions
Drake PSO APPR Block 05 Curriculum	 Drake PSO APPR Block 05 - 0% Completed	Assigned	Test Curriculum 2		Actions
Drake PSO APPR Block 06 Curriculum	 Drake PSO APPR Block 06 - 5% Completed	In progress	Test Curriculum 2		Actions
Drake PSO APPR Block 07 Curriculum	 Drake PSO APPR Block 07 - 1% Completed	In progress	Test Curriculum		Actions

Training Program Curriculum – ULS (cont'd)

Orientation (Required)

Status: Incomplete

Progress: 2 of 4 Learning Items Completed

Complete 4 of 4 available courses and curricula.

✓
[Complete Safety EPA
Orientatio...](#)

[Complete On Site
Plant Safety ...](#)

✓
[Power Plant Terms
And Definiti...](#)

[Locate And Identify
Items On T...](#)



Power Plant Safety and Health (Required)

Status: Incomplete

Progress: 1 of 10 Learning Items Completed

Complete 10 of 10 available courses and curricula.

[Accurately Access
MSDS Databas...](#)

[Safely Work In Wet
Area TPE *](#)

✓
[Fill Out Injury Reports
TPE *](#)

[Locate Eyewash
Fountains And S...](#)

[Locate Hazardous
Chemical Stor...](#)

[Analyze Work
Assignment For Sa...](#)

[Discuss Safe Handling
Of Hazar...](#)

[Describe Job
Expectation Summa...](#)

[Provide Standard
Clearance TPE *](#)

[Demonstrate Ability To
Clean A...](#)



Training Programs

- Dispatch
- Dispatch Lead
- Payment Operations
- Payment Operations Lead
- Customer Account Specialist
- Lobby Operations
- Credit Operations
- Senior Account Specialist
- Utilities Locator
- Gas System Operator
- Maintenance Mechanic
- Water Plant
- Wastewater Plant
- Water System Operator
- Transmission System Operator
- Plant System Operator
- Line Technician
- Substation Line Technician
- Power Plant Electrician

Q & A