Evolution of a Strong In-House Training Team

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Colorado Springs Utilities

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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
## Evolution of a Strong In-house Training Team

### 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
# Evolution of a Strong In-house Training Team

University of Springs Utilities

2004

<table>
<thead>
<tr>
<th></th>
<th>Technical Craft Development</th>
<th>Organizational and Professional Development</th>
<th>Instructional Design</th>
<th>Administration</th>
<th>Total Positions</th>
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<td>Manager</td>
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Evolution of a Strong In-house Training Team

• 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

Manager

Admin Specialist

Organizational & Professional Development Supervisor
- Human Resources
- Customer Service & Revenue
- Information Technology
- Finance
- Organizational Development
- Leadership Development

Technical Craft Development Supervisor
- Electric
- Gas
- Water / Wastewater
- Safety & Environmental
- Field Service

Instructional Design Supervisor
- Design and development
- Multi-media services
- LMS administration and support
- Metrics and Benchmarking

Workforce Development Specialist Senior (3)
Workforce Development Specialist (2)
Workforce Development Specialist Senior (4)
Workforce Development Specialist (4)
Workforce Development Specialist Senior (4)
LMS Support / Tracking / Metrics (2)
Standardized Training & Development Approach

- 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

Workforce Development Manual → Job Task Analysis → Skill Maps → Training Materials → Implement

Maintain
Standardized Training & Development Approach

Skill Acquisition & Maintenance Program

Workforce Development Manual

Job Task Analysis

Skill Maps

Training Materials

Implement Maintain

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

Electricity | Natural Gas | Water | Wastewater
Standardized Training & Development Approach

Skill Acquisition & Maintenance Program

- **Job Task 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 Maps**
- **Training Materials**
- **Implement**
  - **Maintain**
Skill Acquisition & Maintenance Program

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

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Standardized Training & Development Approach
**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)
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

Drake Plant System Operator Apprenticeship Program

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

Drake Plant System Operator Apprenticeship Program

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.
Training Program Site (SharePoint)
Skill Map & JTA

Drake Plant System Operator Apprenticeship Program

**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.
Standardized Training & Development Approach

Training Program Site (SharePoint)
Program Materials
# Standardized Training & Development Approach

## Training Program Curriculum - ULS

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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 Orientation...
- Complete On Site Plant Safety ...
- Power Plant Terms And Definitions ...
- 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 Databases...
- 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 Hazard...
- 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