OBJECTIVES
- Define the phrase “Trained”
- Union Sanitary District Overview
- What Was The Need
- Training System
  - Training Modules
  - Assessments
  - Train The Trainer (SME to Trainer/Learning Facilitator)
- Results and Management Lessons Learned
- USD and the term “Trained”

BEFORE WE BEGIN
Complete the following statement:

“WHEN I SAY AN EMPLOYEE HAS BEEN TRAINED

$$I \quad MEAN:$$
WHO ARE WE?

- Special District to provide Waste Water Treatment
- Founded 1918
- Service area
- About 325,000 people
- About 762 miles of pipe
- Average dry flow 27.5 MGD
- About 130 employees

What Was The Need For A System

- No Training System or Program Exists

- OSHA/CAL-OSHA, Other Federal, State, Local regulations - Compliance

- Need for a skilled workforce
  - No degree to some college
  - Yet, some must be certified
  - Nobody is providing our system specific training

- 25% of workforce indicates they will retire within the next 5 years
- 25% of the workforce could retire today

Resources Applied

- Full Time Technical Training Coordinator
- Full Time Plant Operator Trainer
- Full time intern the past three years
- Support from over twelve operating group SMEs
- The Lab (right outside the door)
THE TRAINING SYSTEM

Training Modules

Training System

WHAT IS A TRAINING MODULE?

A collection of documents that together, provide a system the District can use to train, qualify/certify, and assess employees in the proper performance of their job.

- Job Competency Requirement (JCR)
  - Competency Assessment (CA)
  - Standard Answer (SA)
  - Standard Operating Procedures (SOP)
- Do not cover in this presentation

Job Competency Requirement

The minimum knowledge and skills that an individual must demonstrate

- Three sections
  - 300 Section: Tasks (listed in a sequence of accomplishment)
  - 200 Section: Systems (mostly Knowledge / some Skills)
  - 100 Section: Fundamentals (Knowledge)
REVERSE ENGINEER

PAVING

To know **how** to do this:

**300 Task: Conduct Final Rollover of Patch**

You need to **know** this:

**200 System: Utility Compactor (Roller)**

You need to **understand** the fundamentals about this:

**100 System: Working Around Hot Mix Asphalt**

DEVELOPMENT

- Counter Intuitive
  - Develop the 300 Tasks first
  - As you refine the tasks section you then start developing the 200 Systems section
  - As you develop the 300 Tasks and the 200 Systems:
    - Knowledge that is fundamental to completion of the JCR needs to be captured
    - Develop the 100 Fundamentals (Subjective)

**Do You Really Know?** - **OR** -

**Do You Really Want To Know?**

- Given a task:
  - Who determines when an employee successfully demonstrates the task?
  - What do you base success upon? What was your standard?

- In other words, WGLL or What Good Looks Like (Pronounced Wiggle)
STANDARD ANSWERS (SA)

- USD uses Standard Answers to define WGIL

- Steps in Development of Standard Answers:
  - Developed by the Subject Matter Expert (SME)
  - Reviewed by the SME and Coach
  - Approved by the topic area Manager

COMPONENTS OF A SKILL
STANDARD ANSWER FOR PAVING

300 Task: Conduct Final Roll Over the Patch

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What are the probable indications if this component fails?
E. What means of communications are used?
F. Satisfactorily perform this task.

COMPONENTS OF A SYSTEM
STANDARD ANSWER FOR PAVING

200 System: Utility Compactor

- What models/types are available?
- Where is it located?
- How does it operate?
- What maintenance is done to ensure proper operation?
- What is its capacity?
- What are the probable indications if this component fails?
- Normal operating parameter status (ON/OFF Flow/Amp/Level etc.)
SKILL COMPETENCY DEVELOPMENT

- Think of a position where you work that you are familiar with the tasks

KNOWLEDGE COMPETENCY DEVELOPMENT

PAVING JCR TASKS
THE TRAINING SYSTEM

Training Modules  Assessments

Training System

ASSESSMENT DEVELOPMENT

- What do we assess?
  - The knowledge and skills required to do the job

- Where are the assessment competencies?
  - In the training module we developed (300 Series)

- We base our assessment the competencies the employee are trained in

- Expanding into critical thinking / scenario driven training (If, Then, Else process)
ASSESSMENT

- Assess whether the employee has the knowledge and skill to complete the task in accordance with the Standard Answer (T, M, E or, KSA).

  - T - Information was not successfully transferred from Trainer to Employee. (Classroom, On-The-Job (OJT), Computer Based, etc.)
  - M - Was the equipment and/or tools inoperative or defective thus affecting the employee's ability to accomplish the task. Was the equipment not to specification? Too old? A new piece of equipment? Was the documentation inadequate or wrong?
  - E - Did the training environment affect the employee's accomplishment of the task. Environmental factors include: Time constraints and Temperature/Weather.
  - KSA - Did the employee not have the requisite KSA to accomplish the task.

Gauge Effectiveness Of:
- Instruction
  - Instruction
- Instructors
  - Knowledge Retention
- Tools/Equipment

Provide Data To:
- Team Balanced Score Card
- Operational Excellence Scorecard
- Succession Planning
- Long Term Staffing

Provide Input To:
- Employee Development Plan
- Employee Performance Appraisal

Using Assessment Data
ARE YOU MONET?

A Subject Matter Expert once said about module development:

...this is an art. You cannot just do this. You cannot be assigned to do it out of the blue. It is no different from painting. If you never learned to paint, the outcome probably won't look good.

What Makes An Subject Matter Expert, An Expert Trainer?

- What is the process at your site when assigned to train a co-worker?
- The Train The Trainer course
  - Four Modules
    1. Adult Learning Theory
    2. Training Module Development
    3. Training Strategies and Techniques
    4. Competency Assessment

Know what an assessment is and why we use them
Develop an assessment from a Training Module
Assess an employee's performance
Develop Standard Operating Procedures (SOP)
Course of Instruction

THE TRAINING SYSTEM

Training Modules
Assessments

Benefits and Management Lessons Learned
Train the Trainer

Results
- Over thirty modules developed to date
  - Tractor Loader Backhoe (Collections)
  - SCADA (Plant Operator)
  - Pump Station Mechanic (Maintenance)
- Extensive process review
- Retain Expert Knowledge
- Instruction and assessments completed in seven modules
- Employee feedback 4.8 on a 5.0 scale
- Researching uses in:
  - Professional development plans
  - Beginning discussion with executive team and union
Results

- Construction and use of a dedicated training center

Results

- Workforce Development Tied To Strategic Plan
- Use of Balanced Scorecard
  - Progress (Modules Developed, Employees Assessed)
  - Performance (Safety, ROI (Cost Vs Benefit))
  - Beginning to use Kirkpatrick Level 4 evaluations
  - Employee use of K&S and Coach Observation of Performance
- Awarded Training Magazine Top 125 Global Training Organizations for 2011

Management Lessons Learned

- It’s going to take you longer than you want
- Resources taken away from work
- Details, details = Frustration
- It’s not an event, it’s a process
Management Lessons Learned

- Leadership drives the bus
  - Or it dies

- Not everyone can
  - Develop a module

- Train fellow employees

- Assess fellow employees

USD AND THE TERM “TRAINED”

- When we say an employee has been trained:

  Training occurs when instruction is given either:
  - on the job (OJT)
  - in the classroom
  - or both

  accomplished in concert with/or followed by successful demonstration of the acquired knowledge or skill

THANK YOU

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