NW Natural’s
Field Operations Training Approach:
Our Sherwood Training Facility

Citizens Committee On Pipeline Safety
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Bill Rehse
Manager, Field Operations Training
NW Natural - Company Overview

- 2nd Oldest Company in Oregon
- Headquarters in Portland, OR
- 730,000 Customers
- 14,000 miles of main
- 19 counties in western Oregon and southwestern Washington
- 13 Resource Centers
- ~1100 employees
Presentation Overview

- Summary of our training plan
- Overview of our training center – facilities and capabilities
- How we are using our training center
- Emergency response scenario-based training
- Benefits and learnings
- Q&A
Field Operations Training Plan

• Journey down a new path in Field Ops Training began in 2009
  • Long-term vision and plan proposed to our executive team

• Field Operations
  • ~ 350 employees, across 14 different workgroups

• Integrated Field Operations Training
  • Focus on ensuring standardization and consistency across Field Operations
    • In procedures, policies, standards
    • In way training is conducted and employees evaluated
    • In way standards are enforced in the field
Training Plan- Then vs. Now

• 2009
  • 3 Trainers, covering Construction and Customer Field Services (CFS)

• 2017
  • 1 Training Manager, 2 Training Supervisors, 11 Trainers, 2 Developers (plus a third developer through 2020)
  • Sherwood Training Center
  • Centralized Training Model
  • Professional Training Developers
  • Scenario-Based Emergency Response Training Program
  • Formalized Training for
    • Construction, CFS, System Operations, Locating, Leakage (~ 80% of Field Ops)
  • Trainer Development Program underway
Training Plan- Where we are headed

- Highlights of Vision for 2020
  - All areas of Field Operations have formalized training
  - Structured on-the-job training to supplement formal training
  - Evaluation of skills once back on the job
  - Improved post training job supports (e.g., short topical videos)
  - Technology is fully and effectively leveraged
  - Improved training and development program for Trainers
  - Effectiveness of training program fully evaluated
  - Training for contractors on NW Natural requirements
Sherwood Training Center- Utilization

• What we do at our center
  • Initial training
    • New to position or advancing in field
  • Quarterly training for all Field Ops employees
    • 4-8 hours/quarter
  • Emergency response training
Sherwood Training Center- Utilization

- Shift to centralized training model
  - NW Natural employees
  - Contractors
  - Fire Departments
Sherwood Training Center

- 4 classrooms
- 4 labs
- Training Town
- Training Field
Sherwood Training Center- Classrooms

- Smartboard technology
- Laptops connected to server
- One classroom - gas and air for demonstrations
- Storage
Sherwood Training Center- Classrooms
Sherwood Training Center- Classrooms
Sherwood Training Center - Flow Lab

- Regulation and metering
  - Residential
  - Commercial
  - High pressure
Sherwood Training Center- Flow Lab
Sherwood Training Center- Flow Lab
Sherwood Training Center- Light Up Lab

- 10 separate work stations, each including various appliances/equipment

- Ranging from 1940’s to current day equipment
  - Residential and Commercial

- Training on
  - Troubleshooting
  - Diagnostics
  - Activation

- Each station has independent houseline and meter
Sherwood Training Center- Light Up Lab
Sherwood Training Center- Light Up Lab
Sherwood Training Center- Welding Lab

• For training on oxy-acetylene welding
• 12 stations
• Initial Training
• Semi-Annual Testing
Sherwood Training Center- Welding Lab
Sherwood Training Center- Construction Lab

- Set up for training on variety of construction tasks (e.g., fusion, thermite welding, mechanical connections)
- Some permanent OQ testing stations
- Weekly Contractor OQ testing conducted
Sherwood Training Center- Construction Lab
Sherwood Training Center- Construction Lab
Sherwood Training Center- Training Town

- 1.2 acres
- 18 structures, including one triplex
- Modular home- 3 bedroom structure with unattached garage
- Fed with B pressure system
- Wireless sound system
- Covered viewing/shelter areas
- Electric air compressor
  - Damage simulation and purging
Sherwood Training Center - Training Town

Non-Leak Area
- Gas & electricity to props
- Light-up training
- Emergency response scenario based training

Underground Leak Area
- 56 leaks
- No electricity
- Emergency response scenario based training

Practical Training Area
- Excavation
- Squeezing pts - steel & poly
- Safety training:
  - High angle work
  - Fire suppression
  - Confined space
Sherwood Training Center- Training Town
Sherwood Training Center- Training Town
Sherwood Training Center - Training Town
Sherwood Training Center- Training Town
Sherwood Training Center - Training Field

- 2 vaults
  - 1 poly, 1 steel
  - Underground damages using compressed air

- 2 vaults
  - Confined space training

- Locating

- Hand digging

- Mechanized equipment training, including excavation and backfilling

- Pneumatic boring, reliner training

- Tower for high angle training
Sherwood Training Center - Training Field
Sherwood Training Center- Video

- Sherwood Training Center Video

https://www.youtube.com/watch?v=oLTjtu9ZpJo
Emergency Response Training

• Initial and ongoing refresher training
  • Initial – 3 day training, after approximately 9 months-1 year
  • Refresher- 2 day training on 3-year cycle

• Refresher model - mixed workgroups

• Classroom- (1/2 day)
  • Key objectives/priorities
  • Incident command, communication
  • Case studies
  • Procedures
Emergency Response Training

• Core - Scenario-based training methodology
  • Demonstrated scenarios
  • Practice/coached scenarios
  • Evaluated scenarios
  • Debriefs

• Employees are required to pass
  • Policy for retraining/retesting
  • Up to 3 attempts allowed
Sherwood Training Center- Fire Department Training

• Training makes direct contact annually with all 144 Fire Departments in our service territory

• Conducted training for over 2300 firefighters over the last 3 years

• Most trainings are conducted at FD Stations

• Promoting centralized training on natural gas emergencies for fire personnel
Centralized Fire Department Training
Sherwood Training Facility- Benefits

- Enhanced learning environment
- Quickly and easily shift from classrooms to labs to training town
- Provide realistic hands-on training
  - More effective
  - Better transfer to the job
Sherwood Training Facility- Benefits (cont.)

- Increased confidence
  - Employees
  - Trainers

- Better ability to integrate safety training

- Cultural change → training is now viewed favorably
  - Feedback from employees → Very positive
NW Natural Sherwood Training Facility

Questions?