Training Agenda

9:00 – 9:10 am	Welcome
9:10 – 10:10 am	Presentation - Developing and Implementing an Effective Mechanical Service Tee Replacement Project
10:10 – 10:20 am	Break
10:20 – 11:20 am	Presentation - Selection and Supervision of Construction Contractors
11:20 – 11:30 am	Break
11:30 – 12:15 pm	Lunch with Screening of Video Shorts
12:15 – 1:00 pm	Panel Discussion
1:00 pm	Adjourn

Draft Outline Proposal of Training Program for Developing and Implementing an Effective Mechanical Service Tee Replacement Project
October 24, 2012

The training program would focus on the aspects of our natural gas asset management replacement program:

1. Distribution System and Available Records Overview
    a. System configuration, size, material types, age, etc.
    b. Geographical Information System Records
    c. Field book/main records (i.e., as built) records
    d. Service Sheet Records

2. Replacement Program Overview
    a. Numbers and types of resources used
        i. Construction
        ii. Mapping
        iii. Inspection
        iv. Customer contact
        v. Leak Survey
        vi. Auditing/regulatory/safety
        vii. Engineering
    b. General steps of the program
        i. Initial data collection/records review
        ii. Allocation of resources
        iii. Replacement process
        iv. Records update.

3. Data Collection and Review
    a. Mechanical service tee (MST) purchasing timeframe
    b. Time of install
    c. Conservative timeframe chosen for targeting replacement based upon initial and last purchase dates
    d. Types of MSTs installed
        i. KUB only purchased MSTs from Perfection only
        ii. Other manufacturers were available
    e. Known or probable location of installation

4. Allocation of Resources – Use of internal versus external resources
    a. Construction – Internal and external
    b. Mapping - Internal
    c. Inspection – Internal
    d. Customer contact - Internal
    e. Leak Survey – Internal and external
    f. Auditing/regulatory/safety – Internal
    g. Engineering – Internal

5. Prioritizing work – Focused on largest number of MST removal as possible

a. Subdivisions – More concentrated
b. Zip code – Less concentrated
c. Main replacement

6. Expected costs
    a. Leak surveys during the replacement
    b. Internal forces for inspection, replacement, mapping, auditing, and engineering
    c. Bids for zip code work for contractors – Cafeteria style bids
        i. Uncover in grass
        ii. Uncover in asphalt
        iii. Inspect only
        iv. Replace
        v. Cover
        vi. Restore

7. Tools, equipment, and personal protective equipment necessary to perform the work safely
    a. Combustible gas indicators
    b. Flame resistant clothing
    c. Excavation equipment
    d. Restoration materials

8. MST Replacement Process
    a. Communication to customers and affected members of the public
        i. Letters
        ii. Doorhangers
        iii. Personal contact
    b. Underground utility locating
    c. Proper traffic control techniques
    d. Excavation techniques for uncovering and replacing MSTs safely
    e. Emergency procedures when abnormal operating conditions are encountered
    f. Reinstating the natural gas service
        i. Leak inspections
        ii. Relights for the customer
    g. Proper purging techniques
    h. Proper data collection for Annual Report

9. Conclusions
    a. Best practices for collecting "as built" documentation for system mapping
    b. Lessons learned for uncovering and, when necessary, replacing a large number of MSTs

Informational Module for Selection and Supervision of Construction Contractors
October 24, 2012

The informational module would focus on the aspects of KUB's practice of selecting and supervising contractors to perform new construction installations of natural gas mains and services:

1. Support Structure
    a. Natural Gas Asset Management Team
        i. Purpose
        ii. Goals
        iii. Meeting Schedule
        iv. Membership
    b. Operator Qualification Working Team
        i. Purpose
        ii. Goals
        iii. Meeting Schedule
        iv. Membership
    c. KUB Departmental Collaboration
        i. Energy Systems Engineering
        ii. Underground Construction
        iii. Safety and Technical Services
        iv. Systems Operations
        v. Meters
    d. Contractor Collaboration

2. Pre-qualification Process
    a. Sample contracts
        i. General Conditions
        ii. Specifications
    b. Safety Questionnaire
    c. Insurance Verification
    d. References
    e. Bid limitations for existing and new contractors
    f. Operator Qualification (OQ) Plan
        i. Approval of contractor's plan
        ii. Discussion of KUB's plan and the requirements for adherence

3. Specifications for New Construction
    a. Use of detailed plans and drawings for all projects
    b. Use of detailed specifications for installation natural gas service lines and mains, cathodic protection, and welding
    c. Adherence to OQ Program for new construction installations
        i. Applicable covered tasks
        ii. Method of qualification – Computer-based training, classroom training, vendor presentations, performance evaluations
        iii. Documentation via third party software vendor – Energy WorldNet
    d. Damage Prevention for Excavators
        i. Courtesy Stop

        ii. Damage charges are enforced on at-fault contractors
        iii. Repairs made by KUB crews only

4. Quality Assurance
    a. Structure of Resident Project Representatives (RPR) Group
    b. Training of RPRs
    c. Use of RPR
        i. Duties
        ii. Responsibilities
    d. Uncover of Unobserved Installations
    e. Examination of fused welds
        i. Visual
        ii. Destructive Testing
    f. Examination of metallic welds
        i. Visual
        ii. X-ray
        iii. Destructive Testing
    g. Photographic Documentation of fused welds, welds, and pipe installations
    h. Pressure Testing with units equipped with GPS pinpointing, data logging, and record production
    i. Mapping of New Installations
    j. Follow Up of New Installations
        i. Visual Observation of above ground equipment
        ii. Tracer Wire
        iii. Mapping Documentation
        iv. Leak Survey
    k. Auditing
        i. Field Conditions Using Internal Resources for OQ
        ii. Field Conditions Using Third Party Fusion Trainer for OQ
        iii. Safety
        iv. Sediment and Erosion Control
        v. Office Records Review

5. Documentation
    a. Collection
        i. Fieldbooks
        ii. Utility Service Sheets
        iii. Pressure Test Receipts
        iv. Photographic Documentation
        v. Destructive Testing
        vi. Auditing Verification Sheets (i.e., Completed PHMSA Protocol 9 Forms)
        vii. OQ Verification
    b. Storage in Centralized Database

6. Post-Evaluation Process
    a. During the Project - Contract Employee Suspension and/or Contractor Debarment for Work Quality and Performance, OQ, Employee or Public Safety, and Environmental Issues

b. Upon Completion of the Project
    i. Considers Work Quality and Performance, Employee or Public Safety, and Environmental aspects of all construction projects
    ii. Score Affects Future Bidding Opportunities

Estimated Costs

	Hours	Rate	Cost	Total
Five Video Shorts				
Development of content	90	$75	$6,750	
Set up for video - TCH/CCR	10	$50	$500	
Set up for video - crew	8	$150	$1,200	
Set up for video - equipment	8	$100	$800	
Taping of videos - crew	16	$150	$2,400	
Taping of videos - equipment	16	$100	$1,600	
Taping of videos - TCH/CCR	16	$50	$800	
Videographer/editing			$7,500	
				$21,550
Training Program Content				
Development of training materials	100	$75	$7,500	
Review and approval of content	16	$100	$1,600	
				$9,100
Presentation per Location				
Set up/take down	4	$25	$100	
Rental costs for use of training facility and equipment			$550	
Lunch for participants	50	$10	$500	
Presentation of training content - Staff	8	$50	$400	
Presentation of training content - Staff	8	$75	$600	
Presentation of training content - Staff	8	$100	$800	
				$2,950
Videographer/editing			$2,500	
Creation of 50 DVDs	8	$25	$200	$2,700