

Standardizing Work Methods

Process Review & Lessons Learned

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The Goal

- Establish the same work methods for handling asbestos-containing electrical equipment across a multi-state service territory.
- This “simple” policy change turned out to involve far more details than originally anticipated....

Dilemma: Handling Asbestos

T&D Asbestos removal:

- Is incidental to utility work
- Complicated administrative process
- Minimal health concern (assuming its removed properly)
- Literal compliance is impractical and creates a compliance dilemma.

Reasons for Policy Change

- 1. Align IH goals with company goals:**
 - System-wide consistency and standardization of work practices.

Reasons for Policy Change

2. Complicated Process:

- Existing work practices varied across regions.
- Work practices were based on local practices (no written procedures).
- Existing state requirements were different in each state, were not relevant to utility work, and actually worked against worker protection.

Reasons for Policy Change

3. Electrical hazard risk:

- Asbestos contractors tend to be less familiar with electrical equipment.
- Standard respirator use for protection from asbestos is inconsistent with FR policy*.

**FR Policy requires that workers limit use of PPE and tools to only those that are Fire Resistant (FR) – rated. Elastomeric and loose-fitting PAPRs are not FR-rated.*

Reasons for Policy Change

4. Cost:

- Contractors must be supervised by company employees (no labor cost savings)
- Slower repair of damaged equipment;
- Potential damage to utility equipment during asbestos removal;

5. Flexibility:

- Company workers would be able to remove asbestos and make repairs as needed;
- Reduces length of outage.

- 1. State Regulations:** Company culture historically favored a “conservative” approach to asbestos management:
 - Assume coverage by state regulations;
 - Specify the highest level of asbestos training and state asbestos worker licenses.

2. Uneven Asbestos Management

- Non-Specific Asbestos Training
- No written asbestos removal procedures
- “Tar Baby” Hazard: No one wants to get stuck managing it.

3. Perception of Risk

General Observation:

People tend to overestimate risk of the unfamiliar and underestimate it for the familiar.

- Back-drop: EPA and the popular press have fueled public concern about asbestos.
- “One fiber theory”: Training content tended to overstate health hazards.

3. Perception of Risk (continued)

- Both union employees and management perceived that:
 - Asbestos hazards trumped arc flash hazards
 - Respirator use was needed and had to be at the highest level possible: either a full-face elastomeric respirator or hooded PAPR.

4. Communication

- Limited dialogue between union and management: Main channel was via committees.
- Misunderstanding among management regarding how asbestos was being managed.
- No company-wide established communications channel for sharing asbestos-related information.

Actions needed to achieve policy goal:

1. Establish asbestos management framework and documents
2. Compile, organize, and evaluate exposure data
3. Revise other procedures to reflect policy changes
4. Revise training curriculum
5. Apply for state variances

Program Framework

- Communication – AMG
- Asbestos Work Classification
 - (1) Utility-Related (Seek Variances)
 - (2) Facility-Related (Outsource)
- PPE Use
- New Training Requirements

IH Database

- Compile data from across system
- Review quality
- Establish database protocol (business rules)
- Data Entry
- 88 utility-related samples collected from 1989 – present
- All results below regulated limits.

Procedure Changes

Medical Surveillance

- No exams unless an exposure is suspected

Exposure Assessments

- Establish asbestos sampling protocol Negative Exposure Assessments (NEA)

Respiratory Protection

- Prohibit use of non-FR rated respirators around energized equipment.

- **Documents created or revised to support policy change:**
 1. Asbestos Hazard Management Program
 2. Utility-Related Asbestos Work Method
 3. Dust Bubble Work Method
 4. HEPA Vacuum Clean-out
 5. Exposure Assessment & Medical Surveillance
 6. Respiratory Protection Program
 7. Powered Air Purifying Respirator (PAPR) SOP
 8. RSOP Asbestos Work

Content

- Training based on specific work practices
- Training Provider hired to conduct the same courses across the system

Asbestos Worker Licenses

- Discontinue all state worker licenses
- Training time reduced to 16-hr initial and 4-hour annual refresher

State Variances

Our Position:

No history of asbestos exposure; asbestos material is located in non-public places; exposure to arc flashes pose a more significant threat to workers than asbestos.

Requested Actions:

1. Eliminate worker asbestos licensing
2. Allow the use of internal asbestos work methods in lieu of state regulations
3. Allow National Grid to establish internal training requirements

Outcome:

1. All states granted variances as requested by National Grid.
2. States included MA, NH, NY, and RI
3. Vermont did not respond

Union Leadership Concerns:

1. Elimination of respirators
2. Allowing FR-rated disposable filtering face-pieces as voluntary use respirators
3. Failure to involve them in policy development.

Lessons Learned

- The distance between a goal and its completion increases with the number of stakeholders involved.
- Success depends on how well stakeholder expectations are managed.

Bottom Line:

- *Effective management of IH depends more on successful dialogue with stakeholders than with resource availability.*