

Kentucky Professional Engineers in Mining 20th Annual Seminar

Underground Mine Mapping
Kentucky Mining Law Changes
Mine Rescue Teams

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Liability

The focus is definitely on the engineers.

- ▶ Professional engineers need to look to both the federal requirements as well as the state requirements in each individual state in which they are doing mapping work.
- ▶ Professional engineers need to be very mindful of the Code of Professional Conduct that is required in each of the states in which they are licensed.

The Queecreek Incident

- ▶ Queecreek Mining Company, Inc. acquired a lease and began the permit process for Queecreek No. 1 Mine.
- ▶ In 1994, Musser Engineering, Inc. was contracted to prepare an environmental permit application to the Pennsylvania Department of Environmental Protection.

The Queecreek Incident

- ▶ Musser searched Consol, OSM, MSHA and state map repositories in 1994-95.
- ▶ In 1995, PBS Coals assumed the project.
- ▶ Musser was neither contracted to prepare, nor submitted, any mine maps to MSHA pursuant to the requirements of the Mine Act.

The Queecreek Incident

- ▶ Musser's depiction of the Harrison No. 2 Mine workings were used by PBS to develop the Queecreek No. 1 Mine map.
- ▶ The mine map was submitted by PBS and was not certified by Musser.

The MSHA Accident Report

- ▶ Cause of inundation was use of an undated and uncertified map that did not show the complete and final mine workings.
- ▶ Root cause of the accident was the unavailability of a certified mine map in the Pennsylvania Mine Map Repository.

The MSHA Accident Report

▶ Contributing factors:

- Inadequate systems for collecting, maintaining, documenting, and providing old mining records and maps.
- The parties did not take “additional steps to confirm or address the potential hazard.”

The MSHA Accident Report

- ▶ Contributing factors:
 - Methods such as drilling to determine the extent of mining or de-watering could have been used
 - MSHA suggested that Musser should have put a disclaimer on its DEP permit application map drawing attention to the lack of a final map of the Harrison No. 2 Mine

Red Flags

- ▶ Other information indicated that the boundaries used were questionable.
- ▶ No search of production records was conducted.
- ▶ Discovered maps differed in the extent of workings shown.
- ▶ Discovered maps were uncertified and undated.

Abandoned Mine Mapping – Legal Issues

30 CFR §§ 75.1200-1202-1

- ▶ Adjacent mine workings within 1,000 feet;
- ▶ Mines above or below;
- ▶ Water pools above; and
- ▶ Either producing or abandoned gas wells located within 500 feet of such mine and any underground area of such mine.

Kentucky Revised Statute 352.450

- ▶ (g) Any worked-out areas within one thousand (1000) feet of the projections for the next twelve (12) months, designating whether active, abandoned, or pillared, and showing precautions to be taken if mines are projected towards old workings which cannot be examined.
- ▶ (h) Mines above or below;

Kentucky Revised Statute 352.450

- ▶ (i) Water pools above;
- ▶ (j) Location of all known oil and gas wells (both producing and abandoned) within the area required to be mapped;
- ▶ (k) areas of the mine which are inaccessible or cannot be entered safely and on which no information is available

Code of Ethics

- ▶ A professional engineer can:
 - Delegate tasks to others
 - Certify work of another identified professional engineer;
and
 - Modify work of another licensee so long as your work is clearly stated.

State Mapping Standards

Kentucky Regulation – 201 KAR 18:150, §5

- ▶ A professional land surveyor shall conduct research to obtain record description of each adjoining parcel.
 - A professional land surveyor shall evaluate historical records of the subject and each adjoining parcel;
 - ▶ Previous pertinent surveys;
 - ▶ Tax maps;
 - ▶ Topographic maps;
 - ▶ Aerial photographs; and
 - ▶ Public agency records.

Map Records

- ▶ Some records may have been lost in fires, floods or just simply lost.
- ▶ Mining companies usually have a good repository of maps.
- ▶ Mineral owners often have maps that have been supplied to them by their lessees or contract miners.
- ▶ The U.S. Geological Survey has topographical maps which often show symbols of adits representing portals that have been identified during mapping.

LIABILITY

► Suggestions

- Research is absolutely critical
- A thorough review of the particular company's available maps should be implemented
- Contact with the land owner and/or lessor should be made for other maps.
- Contacts should be made with adjoining land owners and mineral owners to secure any updates or missing maps.

LIABILITY

► Suggestions, Cont'd.

- A review of maps be undertaken in the state Mines and Minerals repository for any adjoining lands to your property.
- FOIA requests should be made to MSHA for the most recent and final mine maps for adjoining properties.
- Add additional language to state precisely what that engineer and/or land surveyor is certifying and the extent of such certification.

Coal Mine Safety

2007 Kentucky Legislative
Changes

Evolution of Kentucky Law

- ▶ After Sago and Kentucky Darby, substantial changes made in 2006.
- ▶ 2007: Additional changes through HB 207.
- ▶ www.lrc.ky.gov

Mine Equipment Review Panel

- ▶ Commissioner may implement recommendations.
- ▶ Subject to: (1) MSHA approval; (2) Budgetary constraints; and (3) No existing law to the contrary.

Intervention

- ▶ Representative of deceased miner, injured miner or other persons affected may intervene in penalty phase.
- ▶ Full rights of intervention—may participate as a party.
- ▶ Hearings will be open proceedings.

Accident Investigations

- ▶ Interviews shall be closed proceedings.
- ▶ How will this affect joint State/MSHA interviews?

Additional Penalties

- ▶ Adds mine seal construction plans and “unsafe working conditions.”
- ▶ “Unsafe” conditions subject to interpretation.
- ▶ Expands 2006 changes.

Increased Inspections

- ▶ Six underground.
- ▶ Two of the six must be electrical.
- ▶ Two surface.
- ▶ Risk-based analysis of inspection frequency.
Safer mines, fewer inspections.

Increased Foreman Training

- ▶ Effective January 1, 2009.
- ▶ Six hours annual training on: (1) changes in mine safety laws; (2) retreat mining; (3) disciplinary cases; (4) changes in technology; and (5) improving working conditions.
- ▶ Provided exclusively by OMSL.

MET/EMT

- ▶ At least two MET/EMT on every production shift.
- ▶ At least one on every non-production shift.
- ▶ Underground mines: At least one underground at all times while miners are working in the mines.

Fan Stoppage

- ▶ Continuous unless turned off for repair or maintenance.
- ▶ Begin withdrawal within 15 minutes of stoppage.
- ▶ When restarted, it must operated to ensure air quality and equalization of atmosphere.
- ▶ If restarted before withdrawal is complete, miners must remain at point of retreat and inby area pre-shifted.

Multi-Gas Detectors

- ▶ MSHA approved, hand held measuring methane, oxygen and carbon monoxide.
- ▶ Provided to: (1) each group of two or more miners working in close proximity to each other underground; (2) foreman; (3) fireboss; and (4) each person who works alone.
- ▶ One available at the face.
- ▶ Miners to be trained in use and signs posted with instructions on use.

Roof Control/Seal Plans

- ▶ Filed with State.
- ▶ Approved by MSHA.
- ▶ Seal construction shall be done in accordance with the approved plan.

Surface Mine Pre-shifts

- ▶ Within three hours prior to work.
- ▶ Roadways, pit areas, highwalls and dumping points.
- ▶ Pre-op exam on all equipment.

Retreat Mining

- ▶ Within 48 hours of retreat mining, notify OMSL.
- ▶ Within 48 hours of notice and before mining, OMSL shall ensure that every person is trained on the pillar plan.

Other areas

- ▶ Family liaison trained in mining and grief counseling.
- ▶ Criminal background checks for inspectors, safety analysts and instructors.
- ▶ Requirement for strobe light on SCSR cache deleted.
- ▶ Reportable accidents: Reference to “other serious accidents” deleted.
- ▶ Lifelines: “Flame resistant material” replaces “durable construction.”

Other Areas

- ▶ Commissioner has subpoena power to investigate even where there is no accident.
- ▶ Reciprocity: No certification if suspended or revoked in another state. Mining Board has discretion to grant if probated, such to probation in Kentucky, too.
- ▶ Electrical work to be performed by a certified electrician.
- ▶ 15 more safety analysts, if funds available.

THE MINER ACT

- MINE RESCUE TEAMS

- EACH OPERATOR MUST HAVE ONE (1) EMPLOYEE KNOWLEDGEABLE IN MINE EMERGENCY RESPONSE ON *EVERY SHIFT*.
- TWO (2) CERTIFIED TEAMS AT EACH MINE.
 - EACH MEMBER FAMILIAR WITH OPERATIONS.
 - EACH MEMBER IN TWO (2) MINE RESCUE CONTESTS PER YEAR.
 - MORE THAN 36 EMPLOYEES: ANNUAL TRAINING AT THE COVERED MINE.
 - LESS THAN 36 EMPLOYEES: SEMI-ANNUAL TRAINING
 - AVAILABLE AT MINE IN ONE (1) HOUR BY GROUND.

THE MINER ACT

- MINE RESCUE TEAMS - COMMERCIAL
 - LIMITATION OF LIABILITY
 - PROHIBITS ACTIONS FOR PROPERTY DAMAGE, INJURY OR DEATH.
 - DOES NOT PROHIBIT GROSS-NEGLIGENCE, RECKLESS CONDUCT OR ILLEGAL CONDUCT.
 - DOES NOT PRE-EMPT STATE WORKER'S COMPENSATION LAW.

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