



COALEX STATE INQUIRY REPORT – 135
January 8, 1990

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TOPIC: DEFINITION OF "MINE STABILITY"

INQUIRY: What does the phrase "mine stability" mean under subsidence control regulations [30 CFR Sec. 817.121(a) or SMCRA Sec. 516(b)(1), 30 U.S.C. Sec. 1266] or under other federal statutes?

SEARCH RESULTS: Using the COALEX Library and other materials available on LEXIS, research was conducted in the legislative history of SMCRA, Interior administrative decisions, federal and state caselaw, all titles of the United States Code and Federal Register preambles to proposed and final rules.

The phrase "maximize mine stability" is used when addressing subsidence issues and regulations. Mine stability is referred to as necessary to prevent or reduce "material damage" to surface lands, structures, etc. caused by subsidence; however, no materials were identified which specifically define the phrase in question. Occurrences of "mine stability" are discussed below. Copies of these materials are attached.

U.S. CODE AND CODE OF FEDERAL REGULATIONS

The phrase appears once in the U.S. Code (U.S. Code Service): 30 USCS Sec. 1266(b)(1) [SMCRA Sec. 516(b)(1)]. Surface effects of underground coal mining.

There are two entries in the Code of Federal Regulations (CFR): 30 CFR Sec. 817.121(a). OSM: Permanent Program Performance Standards -- Underground Mining Activities. Subsidence control.

The language mirrors that of the Act.

43 CFR Sec. 3484.1(c)(2). Bureau of Land Management; Minerals Management: Coal Exploration and Mining Operations Rules. Performance standards for exploration and surface and underground mining.

This section uses some of the same language as the OSM regulation and then adds that



operators "shall adopt measures...consistent with" the corresponding OSM rules: 30 CFR 784.20, 817.121, 817.122, 817.124 and 817.126.

LEGISLATIVE HISTORY

Surface Mining Control and Reclamation Act of 1977, Hearings on H.R. 2 before the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs, 95th Cong, 1st Sess 389 (February 25, 1977)(statement of R.E."Gene" Samples, President and CEO of Consolidation Coal Co.).

In presenting his view of the "negative impact of federal legislation", Mr. Samples states in the section "Bill Overlays Underground Mining":

"Underground operations, mine stability, subsidence, and disposal of mine refuse involve extremely complex geological and engineering considerations. Further, they cannot be divorced from the paramount concern for mine safety. These matters...are exhaustively covered by the Federal Coal Mine Health and Safety Act of 1969."

Regulation of Surface Mining, Hearings on H.R. 3 and related bills before the Subcommittees on the Environment and Mines and Mining of the House Committee on Interior and Insular Affairs, 93rd Cong, 1st Sess 777 (April, 1973)(statement of Hon. Ken Hechler, Representative to Congress from West Virginia).

Representative Hechler quoted from an unpublished Bureau of Mines study entitled "Environmental Effects of Underground Mining and of Mineral Processing":

"[P]reventative action can be taken to stabilize abandoned mines where subsidence has not yet occurred. Prevention, of course, can be most effective in active mines if permanent support of the overburden is incorporated in the mining process."

Surface Mining, Hearings on S. 77 and related bills before the Subcommittee on Minerals, Materials, and Fuels of the Senate Committee on Interior and Insular Affairs, 92nd Cong, 1st Sess 184 (November, 1971) (statement of Hon. Hollis M. Dole, Ass't Secretary, Mineral Resources, Dept. of Interior).

One of the "adverse environmental effects" of mining is "uncontrolled subsidence". Mr. Dole states that the Bureau of Mining has used "backfilling of mine voids" as a technique for "stabilizing abandoned mine workings beneath populated areas."

FEDERAL REGISTER ENTRIES

44 FR 14902 (MARCH 13, 1979). Permanent Program Final Preamble and Final Rules.

- a. 30 CFR 784.20 Subsidence control plan.
The requirement to provide data on "artificial supports and the bearing strength of coal pillars" which was in the proposed rules was deleted from the final rules. Backfilling is retained as an "alternate method", not a required method, "of reducing the likelihood of subsidence damage". (44 FR 15075).



b. 30 CFR 817.121-817.126 Subsidence control.

After stating that proper subsidence control measures are needed "in order to 'maximize mine stability'", the preamble to these sections continues with a technological discussion couched in terms of subsidence and provides a list of technical literature used in writing the rules:

"Determination of on- and off-site subsidence potential requires consideration of coal thickness mined, mining geometry and dimensions, and the nature of overlying and underlying strata."

"Another measure which can significantly reduce subsidence is placement of fill, whether hydraulically or pneumatically, behind a longwall face....Backfilling through surface bore holes has also been used by the Bureau of Mines in an attempt to limit subsidence over abandoned room and pillar mines." (44 FR 15272)

47 FR 16604 (APRIL 16, 1982). Proposed Rules.

OSM proposed these rules to "revise the subsidence control plan rule and the rules requiring protection from underground mining operations causing subsidence. This rulemaking is needed in order to eliminate unnecessary detail".

48 FR 24638 (JUNE 1, 1983). Final Rule.

a. 784.20 Subsidence control plan.

The final rule regulates planned subsidence "from longwall mining or any other full-extraction method", as well as "operations that plan to prevent or minimize subsidence." The subsidence control plan is "properly directed only to the evaluation of the surface impacts of underground mines."

The final rule did not incorporate the proposed rule's requirement for both a general and a detailed subsidence control plan. In discussing the two-tiered requirement of the proposed rule, one commenter made reference to "maximum mine stability": "[O]nly the general plan should be required where maximum mine stability is to be provided, whereas a detailed plan should be required for areas where planned subsidence is used."

b. 817.121 and 817.122 Subsidence control requirements.

"The final rule establishes a distinction between damage to land and damage to structures or facilities....[A]ll subsidence-caused material damage to the land is required to be repaired. Operator responsibility for material damage caused to structures of facilities is tied to liability under State law."

817.121(a). No comments were received nor explanations provided in this preamble for the phrase "maximum mine stability", which appears in this subsection.

817.121(g). This subsection requires the "submission of a detailed plan of the underground workings under a schedule approved by the regulatory authority....[T]he subsidence control plan, submitted with the permit application, provides information on



the underground areas where specific types of control technologies will be used, but does not require extensive information on the details of the underground workings. Submittal of such information can properly be delayed until the details of the mining operation are known more precisely."

48 FR 44777 (SEPTEMBER 30, 1983). Final Rule; Technical Amendments.

This rule corrects "typographical errors, misspellings, and obsolete part and section references."

50 FR 7274 (FEBRUARY 21, 1985). Notice of Suspension.

As a result of the District Court decision in Round II of the SMCRA litigation, the rule requiring "operators to redress material damage to structures caused by subsidence only to the extent required by State law" was suspended. "The Court held that it was improper for OSM to adopt without sufficient notice a final rule that represented a complete reversal of policy from the 1979 regulation."

52 FR 4860 (FEBRUARY 17, 1987). Final Rule.

"[O]perator responsibility for material damage to structures or facilities resulting from subsidence will derive from applicable provisions of State law."

ATTACHMENTS

- A. 30 USCS Sec. 1266(b)(1) [SMCRA Sec. 516(b)(1)]. Surface effects of underground coal mining.
- B. 30 CFR Sec. 817.121(a). OSM: Permanent Program Performance Standards -- Underground Mining Activities. Subsidence control.
- C. 43 CFR Sec. 3484.1 (c)(2). Bureau of Land Management; Minerals Management: Coal Exploration and Mining Operations Rules. Performance standards for exploration and surface and underground mining.
- D. Surface Mining Control and Reclamation Act of 1977, Hearings on H.R. 2 before the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs, 95th Cong, 1st Sess 389 (February 25, 1977)(statement of R.E."Gene" Samples, President and CEO of Consolidation Coal Co.).
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- F. Surface Mining, Hearings on S. 77 and related bills before the Subcommittee on Minerals, Materials, and Fuels of the Senate Committee on Interior and Insular Affairs, 92nd Cong, 1st Sess 184 (November, 1971) (statement of Hon. Hollis M. Dole, Ass't Secretary, Mineral Resources, Dept. of Interior).
- G. 44 FR 14902 (MARCH 13, 1979). Permanent Program Final Preamble and Final Rules.
 1. 30 CFR Part 784
 2. 30 CFR Part 817



OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT
U.S. Department of the Interior

- H. 47 FR 16604 (APRIL 16, 1982). Proposed Rules.
- I. 48 FR 24638 (JUNE 1, 1983). Final Rule.
- J. 48 FR 44777 (SEPTEMBER 30, 1983). Final Rule; Technical Amendments.
- K. 50 FR 7274 (FEBRUARY 21, 1985). Notice of Suspension.
- L. 52 FR 4860 (Feb. 17, 1987). Final Rule.