

SECTION 16

SUBSIDENCE CONTROL

SUBJECT: Repair of Subsidence Damage to Surface Lands

1. Purpose: To establish procedures for repair of material damage to surface lands caused by mine subsidence.
2. Definitions: Material damage is damage to the surface of the land that reduces it's value or damages or diminishes it's reasonable foreseeable use.
3. Legal Authority: 22-3-14(a), 38-2-16.2(c)(1)
4. Policy/Procedures: Each person who conducting mining operations which result in subsidence that causes material damage shall restore the land to a condition where it is capable of supporting any uses it was capable of supporting prior to subsidence. (In accordance with 38-2-3.12(a)(6). A permittee cannot have a right to subside in the instance). Usually this will involve the filling or closing of subsidence cracks and/or regrading the area to blend with the surrounding contour and should include establishment of vegetative cover in species appropriate for the land use and sufficient to prevent erosion and siltation.

Once material damage resulting from subsidence is discovered, the inspector should provide written notice to permittee that the damage has occurred and order the permittee to repair the damage. This notice and order can be provided on an inspection report (MR-6) served on and signed by an agent of the permittee or by certified mail. The order should cite 38-2-16.2(c) and should describe the location of the damage and appropriate actions required to repair the damage and reclaim any disturbance created by the repairs. Alternatively, the order may require the permittee to submit a plan and proposed time schedule for making repairs. The order shall also establish a deadline to begin and/or complete the repairs and reclamation or to submit the appropriate plans.

Page Two

If the order requires plans be submitted, the inspector should review the plans and proposed deadline (with advice from the permit review team members as appropriate) and notify the permittee in writing if additional information is necessary. Once the plan is acceptable, the inspector should order the permittee to complete repairs in accordance with the plan. Again, an inspection report signed by an agent of the permittee or a certified letter should be used to serve the order. No violation exists unless the permittee fails to repair material damages in a timely manner, or the damage was caused by a violation of the permit conditions, or unless the material damage is causing imminent harm to the environment or imminent danger to the public health and safety in accordance with 22A-3-16(a). In these cases, the appropriate NOV or IHCO shall be issued by the inspector.

Where it will be necessary to enter surface lands not owned or leased by the permittee, the permittee should obtain a right of entry agreement with the landowner.

The inspector should use some judgement in determining the appropriate remedial measures required by the order. Factors to consider include the likelihood of public endangerment, the extent and difficulty of work necessary to accomplish the repairs, the accessibility of the area and the attitude of the surface owner.

SUBJECT: Subsidence Control - Public Notice of Underground Mining

1. Purpose: Clarify timing requirement for notice of underground mining sent to surface owners.

2. Definitions:

3. Legal Authority: 22-3-14(a); 38-2-16.1(a)

4. Policy/Procedures: Where mining will begin immediately upon permit issuance, initial notification of underground mining to residents/property owners must occur within thirty (30) days of permit issuance. This notice should be sent to all resident/property owners that will be impacted during the first six (6) months of projected underground mining.

All additional notices must be sent to residents/property owners at least six (6) months prior to underground mining beneath their property.

All notifications must be sent certified mail and the return receipt maintained at the respective mine office and made readily available to the inspector at his request.

The operator is responsible for continually monitoring changes in land ownership and the construction of new structures within the subsidence control area.

WV Division of Environmental Protection
Office of Mining and Reclamation
Inspection and Enforcement

Series: 16
Pg. No: 1 of 1
Revised: 2-98

SUBJECT: Subsidence Damage or Water Loss Related to Mining

1. Purpose: Procedure to replace water loss related to mining.

2. Definitions: N/A

3. Legal Authority: 22-3-14(b)(9)

4. Policy/Procedures:
 1. Inspector investigates and determines if water loss is related to mining.
 2. If the inspector determines water loss is mining related, the inspector should notify the permittee via DMM-6 to replace the water supply.
 3. If the water loss is not replaced, the inspector should issue a NOV or CO as the case may dictate.
 4. If the property owner refuses to let the permittee enter upon their property, contact the I & E supervisor for appropriate action or guidance.

WV Division of Environmental Protection
Office of Mining and Reclamation
Inspection and Enforcement

Series: 16
Pg. No: 1 of 1
Revised: 2-98

SUBJECT: Subsidence Control - Mine Development Map Review

1. Purpose: To clarify the requirement for review of mine development maps.

2. Definitions:

3. Legal Authority: 22-3-14(a); 38-2-16.2(e)

4. Policy/Procedures: During each complete inspection of an active underground mining operation, the inspector is to review the most current mine development maps to determine if mining is proceeding in accordance with the approved subsidence control plan. All mining operations are required by the Division of Miners Health Safety and Training to maintain an up-to-date map indicating all current and previous mining. A copy of these maps are to be kept at or near the mine site. In addition 38-2-16.2(e) and 22-3-15(b) provides the agency with the authority to require this information be submitted to the Director or his authorized agent.

SUBJECT: Pre-subsidence Structure Survey Procedures

1. Purpose: Establish pre-subsidence structure survey procedures.

2. Definitions:

3. Legal Authority: 38-2-3.12 and 38-2-16.2

4. Policy/Procedures: The survey process begins with the operator informing in writing all residents or owners of non commercial dwellings or manmade structures located within a thirty (30) degree angle of draw projected from the mining limits. This notification must state the reason for the survey and that denial of access will mean that no presumption of causation will exist. The notification must be mailed or delivered to the resident/owner via certified mail or signed and witnessed receipt. The certification number will be referenced on the letter.

Surveys must be submitted and acknowledged by this agency prior or simultaneously to owners and residents receiving the Notice (six month notice) described in 38-2-16.1 of the West Virginia Surface Mining Reclamation Regulations. No mining may take place in any area for which a survey is required until such survey is completed, and acknowledged by this office.

The list of residents and owners shall be reviewed and updated by the permittee at a minimum annually for new structures and residents. Within fifteen (15) days of becoming aware of any changes to the original survey (new residents/structures/etc.) the permittee must complete and submit to this agency a revised survey. Any new individuals and/or structures must have a survey if mining (mineral extraction) in the area is not completed.

A copy of the notice of the right to a survey along with the return receipt must be submitted to the appropriate Regional Office. A "Notice" will be mailed to the permittee advising the permittee that these surveys must be conducted by the insurance carrier who has indemnified the permittee for subsidence related damages. If the carrier elects to engage the services of another entity to conduct the survey, the carrier must certify, in writing, that this person or entity is qualified to do such work.

Once the Regional Office receives the surveys, they shall be logged in and date stamped. Then, one copy of each survey will be submitted to Headquarters for review.

Upon review by headquarters staff, if the survey is found to be complete and adequate, it will be sent back to the regional office. The regional office will then notify the permittee that the survey has been reviewed and appears to be of sufficient detail to identify the condition of the structure. The permittee shall provide a copy to the owner/resident at this time.

A "log" will be kept at each Regional Office to track each survey during the process. Each survey shall be entered in the log book at the Regional Office and contain the following information:

- 1.) Resident/Owner
- 2.) SMA or Permit Number
- 3.) Permittee Name
- 4.) Date Notification received by owner/resident
- 5.) Date "Notice" sent to permittee
- 6.) Date "Notice" received by permittee
- 7.) Date survey received
- 8.) Date survey acknowledge (accepted)
- 9.) Date acknowledgment letter sent

The following guidelines must be adhered to when reviewing a pre-subsidence survey. The guidelines are provided to assist in evaluating whether the survey adequately documents pre-subsidence damage and other physical conditions which could be affected by subsidence. Each survey of a building and structure related thereto should be bound or stapled together and shall conform to the following format:

- Name of owner
- Name of tenant (if applicable)
- Permittee and SMA# or Permit #

- A copy of the Notification for the Pre-subsidence Survey. If access is denied, include documentation.
- Address of structure, description of structure and location identifier keyed to the subsidence survey map
- Mailing address of owner and tenant
- Plan view of the relative location of structures surveyed (scale not required)
- ** General description of structure (number of stories, construction materials for frame, construction material for exterior finish and approximate age, if available.
- A general description of the survey methods and direction of progression of the survey, including a key to any abbreviations used.
- Sufficient exterior photographs (equal to the standard 35mm negative film format) to illustrate a wide angle full frame view of each exterior wall, close-up photographs to illustrate any pre-subsidence damages noted, and mid-range photographs to illustrate relationships of close-up photos to wide angle photos. Exterior photos should also illustrate the condition of visible foundation walls, sidewalks, steps, porches, chimneys, well houses, fences, utilities, garages, out buildings, and other exterior structures.
- Information on the type of water supply (public utility, private multi-dwelling water systems, well(s) spring, cistern).
- If water supply is any other than a public utility, survey must include water analysis (tds or spec. cond. at 25 degrees centigrade, pH, acidity, alkalinity, total Fe, total manganese, and sulfates) and a description of the type of system and treatment being used. For wells, give type (drilled or dug) and, if available, well log, depth, age, depth and type of casing or lining, static water level, flow data, pump capacity, drilling contractor and indicate source of data.
- ** Documentation of the conditions of each interior room to include comments on type of finishing material for each interior wall, ceiling and floor, and notations on

the location and approximate dimensions of any defect or unusual condition. Interior condition may be illustrated by drawings, sketches, narrative description and 35 mm (or equivalent) photographs.

- ** A notation of any unusual construction technique or method, especially extra-ordinary or sub-standard ("not-to-code") materials or spacings, absence of footer or foundations, pre-fabricated or modular construction, previous relocation of the structure, unusual lot construction or foundation preparation and similar unusual conditions.
- A notation describing any portion of the structure not documented and an explanation of why.
- Signature of the person conducting the survey, name and address of person or firm conducting the survey and a copy of insurance carrier documents certifying that the person or firm is qualified to conduct pre-subsidence surveys.

Photographs submitted with a survey may be contact prints of 35 mm negatives if information on how to obtain full size prints is provided. Videos can be used if they are accompanied by diagrams illustrating where the videos were taken. Items marked with "***" above may be entirely documented by photographs if sufficient photographs are included to adequately illustrate the required information.

SUBJECT: Pre-subsidence Structure Survey Procedures

1. Purpose: Establish pre-subsidence structure survey procedures.
2. Definitions:
3. Legal Authority: 38-3.12
4. Policy/Procedures:

This procedure supersedes the March 23, 1993 memorandum and is in response to The Energy Policy Act of 1992 and the March 31, 1995 Federal Register.

1. a. *Subsidence Survey Map:* The map described in 3.12 of the Surface Mining Reclamation Regulations must identify structures, location and type of domestic water sources, perennial and intermittent streams or renewable resource lands both on the permit area and adjacent areas within an angle draw of at least 30-degree. However, an angle other than 30-degree can be used based upon results of site specific analyses and demonstration that a different angle of draw is justified. Computer program packages predicting surface movement and deformation caused by underground coal extraction can be utilized.
- b. *Pre-subsidence Structural Survey:* The survey described in Series 16 of the I & E Handbook shall be submitted to and acknowledged by DEP prior to any underground extraction within the area defined by the angle shown in 1.a. above for any structure for which a survey is required. Structural surveys are required for all non-

commercial or residential dwellings and structures related thereto. No mining shall take place in any area for which a structural survey is required until such survey is submitted to and acknowledged by DEP.

For areas of extraction that is less than or equal to 60 percent, a pre-subsidence structural survey exemption may be requested by the permittee; provided, it is demonstrated that damage to the structure(s) will not occur (adequate support).

In areas of developmental mining (*less than or equal to 60 percent extraction*), a postponement of the pre-subsidence structural survey may be requested by the permittee; provided, it is demonstrated that damage to the structure(s) will not occur. No mining (*extraction greater than 60 percent*) within the angle of draw shall occur until the pre-subsidence structural survey is completed.

In areas for which a pre-subsidence structure survey exemption and/or postponement is granted and the percent extraction exceeds 60 percent, the exemption and/or postponement for the structural survey is voided for the entire underground mining operation. In addition, the presumption of causation will apply to any damage to structure(s) as a result of earth movement within a 30-degree angle of draw from any underground extraction.

If water supply is any other than a public utility, the permittee must submit information described in Series 16 of the I & E Handbook with the request for exemption or postponement.

NOTE: 30-degree angle of draw is only for survey purpose. 15-degree angle of critical deformation is for protection zone and must be clearly denoted on the subsidence map.

c. *Schedule of Compliance:*

- Not-started Permits: Both a. and b. above must be submitted to and acknowledged by DEP prior to initiation of any mining activities.

- No mining shall take place in any area for which a structural survey is required until such survey is submitted to and acknowledged by DEP.
- Existing Permits with Reserves: Both a. and b. above must be submitted to and acknowledged by DEP no later than August 1, 1996. The structural survey (b.) must at least include the area(s) projected to be mined by January 1, 1997. No mining shall take place in any area for which a structural survey is required until such survey is submitted to and acknowledged by DEP.
- A permittee may submit for review existing surveys if the permittee believes they have surveyed an area previous to this policy to the extent that it complies with this policy. This information may be deemed acceptable provided it satisfies the intent of this policy, provides sufficient information to adequately investigate complaints, and the affected party has been notified and concurs.
- Previously mined areas: Both a. and b. above are not required for areas where mining was completed prior to August 1, 1996. However, both a. and b. above are required for previously mined areas only if second mining is contemplated.

2. *Presumption of Causation:* If alleged subsidence damage to any non-commercial or residential dwellings and structures related thereto occurs as the result of earth movement within the area which a pre-subsidence structure survey is required, a rebuttable presumption exists that the underground mining operation caused the damage.

- a. If the permittee was denied access to the land or property for the purpose of conducting the pre-subsidence survey, no presumption of causation will exist.

Page 4

- b. The presumption will be rebutted if, for example, the evidence establishes that:
- the damage predated the mining in question;
 - the damage was proximately caused by some other factor or factors and was not proximately caused by subsidence; or
 - the damage occurred outside the surface area within which subsidence was actually caused by the mining in question.
- c. In any determination whether damage to protected structures was caused by subsidence from underground mining, all relevant and reasonably available information will be considered by the DEP.

3. *Liability:* Regardless of the date of issuance, permittee is liable for subsidence damage caused by underground mining that occurred after October 24, 1992.

4. *Maintenance Cost of Replacement Water Supply:* Replacement of water supply includes an equivalent water delivery system. Therefore, the permittee is responsible for payment of operation and maintenance cost of the equivalent water delivery system which is in excess of customary and reasonable delivery cost for the premining water supply. Upon agreement by the permittee and the water supply owner, the obligation to pay such operation and maintenance costs may be satisfied by a one-time payment in the amount which covers the present worth of the increased annual operation and maintenance cost agreed to by the permittee and the water supply owner.

5. *Bonding for Subsidence Damage:* When subsidence related material damage occurs to lands, structures, or water supply, and if DEP issues violation(s), the DEP may extend the 90-day abatement period to complete repairs, but shall not exceed one year from date of violation notice. Provided, however, the permittee demonstrates, in writing, that it would be unreasonable to complete repairs within the 90-day abatement period. If extended beyond 90-days, as part of the remedial

Page 5

measures, the permittee shall post an escrow bond to cover the estimated costs of repairs.

NOTE: Memorandums dated March 7, 1995 and April 24, 1995 regarding groundwater wells and protection of streams remain in effect.