

SECTION 6

BLASTING

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

Series: 6
Pg. No: 1 of 1
Revised: 2-98

SUBJECT: Blasting Logs

1. **Purpose:** Approval of company blasting log in lieu of MR-37
2. **Definition:** n/a
3. **Legal Authority/Reference:** 38-2-6.4(a)
4. **Policy/Procedure:** Companies may use their own blasting log if prior approval has been granted by the Director.

SUBJECT: Blasting Certification Revocation

1. Purpose: Outline procedure for initiating revocation of a Blaster Certification
2. Definition: n/a
3. Legal Authority/Reference: 22-3-17, 38-2-6.1 & 6.7
4. Policy/Procedure:

If a situation develops where an individual certified blaster is in violation of the Act, Surface Mining Regulations pertaining to blasting, or the Blaster's Certification Regulations, the following procedure will apply:

1. Inspector documents violation on MR-15 and issues an NOV to Permittee (Permittee always responsible for violation) and sees that a copy of the NOV is given to the certified blaster.
2. Send Headquarter's copy of the NOV to the attention of the Blasting Coordinator (Tony Grbac) along with a request to revoke the certified blaster's certification (if situation calls for revocation).
3. Blasting Coordinator will ensure that the steps required to be taken to revoke a certification are followed and shall pursue final revocation by the director.
4. If the situation warrants, the Blasting Coordinator will also pursue Individual Civil/Criminal penalties against the certified blaster.

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SUBJECT: Preblast Surveys

1. **Purpose:** Define "persons approved by the Director" who conducts the pre-blast survey.
2. **Definitions:**
3. **Legal Authority:** 22-3-13(b)(15)(E); 38-2-6.8, 38-2-11.1(a)(2); 38-2-11.1(c)
4. **Policy/Procedures:**

The insurance carrier who has indemnified the operations under the provisions of Chapter 22A-3-8 of The Code of West Virginia, shall conduct the pre-blasting survey in accordance with the provisions of Section 38-2-6.8 of the Rules and Regulations. If the carrier or the operator elects to engage the services of an outside agency or person to conduct the preblast survey, then the insurance carrier shall certify and submit in writing that this agency or person is acceptable to do such. This submittal shall be reviewed and approved by The Division of Environmental Protection prior to acceptance of the preblast survey.

SUBJECT: Preblast Survey Procedures

1. Purpose: Establishes preblast survey procedures
2. Definitions: "30 days prior to beginning of blasting operations" shall mean at least 30 days prior to the date specified in the blasting advertisement as the date blasting will be initiated.
3. Legal Authority: 22-3-13(b)(15); 38-2-6.8 & 38-2-2.116
4. Policy/Procedures:

The preblast survey process begins with the operator informing in writing all residents or owners of manmade dwellings or structures located within one-half mile of the permit area. This notification, Sample letter Number 1, must state how to request a preblast survey and 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.

The "30 days prior to beginning of blasting operations" means at least 30 days prior to date specified in the blasting advertisement as the date blasting will be initiated.

Surveys requested more than ten days before blasting must be submitted to and acknowledged by OMR prior to commencement of blasting operations.

Any survey requested after blasting operations have begun must be submitted to and acknowledged by OMR within 30 days of receipt of request or blasting must cease.

The list of one-half mile residents and owners should be reviewed and updated at a minimum annually for new structures and residents. Any new individuals must be notified of their right to a preblast survey.

Once the request is received at the appropriate Regional Office, a "Notice to Perform Preblast Survey" (Sample Letter Number 2) will be mailed to the permittee. This "Notice" will advise the permittee to conduct the requested survey(s) and that these surveys must be conducted for the insurance carrier who has indemnified the permittee for property damages and bodily injury. If carrier elects to engage the services of another agency to conduct the survey, the carrier must certify, in writing, that this person or agency is qualified to do such work.

Then a letter (Sample Letter Number 3) will be sent from the Regional Office notifying the owner/resident that their request has been received and the request has been forwarded to the permittee for processing. This will advise them that a copy of the preblast survey will be made available to them and they will have an opportunity to disagree if they feel that it does not represent the condition of their structure.

Permittees will submit completed surveys to the regional office where the survey will be date stamped as received, logged in, and forwarded to headquarters. Headquarters office will notify the regional office clerks once surveys are accepted, and return accepted surveys to the regional office clerk for filing.

Finally, the Regional Office will notify (Sample Letter Number 4) the permittee that the requested preblast survey has been reviewed and appears to be complete and adequate. The permittee shall promptly provide a copy to the owner/resident who made the request.

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

- 1.) Resident/Owner
- 2.) SMA or Permit Owner
- 3.) Permittee name
- 4.) Date request received
- 5.) Date notification letter sent
- 6.) Date notification letter received by permittee
- 7.) Date survey received from the permittee
- 8.) Date survey was sent to Headquarters
- 9.) Date survey acknowledged (accepted)

- 10.) Date the accepted survey is received from Headquarters.
- 11.) Date acknowledgement letter is sent to permittee

Before blasting begins, the inspector should review the logbook to ascertain whether all surveys have been submitted. Additionally, the inspector should review the permittees proof of Letter Number 1 delivery (i.e., "green card" or signed statement by owner/resident.

These guidelines are provided to assist in evaluating whether the pre-blast survey adequately documents pre-blasting damage and other physical conditions which could be affected by blasting. Each survey of a building should be bound securely (not stapled) together and shall include all the following items:

- * Name of owner/tenant, permittee, SMA # or permit #, and the structure number from the permit blasting map which must appear on the survey cover.
- * Current insurer with address.
- * A copy of the request for the preblast survey. If a survey is conducted without a written request, then provide an explanation.
- * Address of structure or description of structure location
- * 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 to illustrate a wide angle full frame view of each exterior wall, close-up photographs to illustrate any pre-blast 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 unless an untreated water sample can be readily obtained (e.g. plumbing disconnection), a sample of the treated water will be allowable if noted in data. 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. If this cannot be accomplished, then the surveyor must justify in detail narrative.
- ** 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/or photographs. Should the person requesting the survey refuse access, the survey shall note this situation.
- ** A notation of any unusual construction technique or method, especially extraordinary 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 explanation of why. (e.g., non-accessible areas).
- * 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-blast surveys. **(A more detailed listing of these requirements can be found on the checklist pages 13 through 16.)**

Photographs submitted with a survey must be 3x5 prints or larger (35mm or equivalent. Contact prints are allowable only if the survey contains a statement that full size (3x5 inch or larger) prints will be made available. Prints must be provided, upon request, to the DEP-OMR and/or the owner/resident who requested the survey at no cost, when there is a question regarding blasting damage. Also, provide the address and phone number (within the survey) to contact whenever full size prints are needed. Prints must be provided within 30 days of request. Videos can be used as a supplement only.

Items marked with ** above may be entirely documented by photographs if sufficient photographs are included to adequately illustrate the required information.

Sample notification letter, notice to perform preblast survey, supervisor's response to preblast survey request, acknowledgement of completed survey and checklist, logforms, preblast survey process, follows and should be used as presented, except for appropriate name changes.

Page 18 is the standardized pre-blast survey log form to be used for tracking surveys.

LETTER #1
NOTIFICATION FROM PERMITTEE TO 1/2 MILE RESIDENTS AND OWNERS

Date _____ Certified Mail # _____

Name and address of resident or owner

Dear XXXX,

Your home, building, school, church or other man-made structure is located within 1/2 mile of surface mine permit number _____ of _____ Company. The mining operation is located in _____ District. _____ County _____ miles N S E W of _____. (nearest post office) The longitude is _____ and latitude _____.

As the resident or owner of a structure within 1/2 mile of the permit boundary, you have the right to request a preblast survey. By regulation, blasting could begin 30 days from receipt of this letter. To insure that a survey is conducted prior to blasting, the Director must receive your request within 20 days. You may request a survey by writing to the following address:

Director
Division of Environmental Protection
(Regional Office Address)

A preblast survey is a recording of the structural and physical condition of your dwelling and will be conducted at no cost to you. This survey will be completed for our insurance company and includes photographs, drawings and other general information about the structure. If wells or springs are used for the water supply, a sample will be taken and included in the survey. The completed survey will also provide you with the name and address of our current insurance carrier. In addition, if any changes are made to the structure you have the right to request the preblast survey be updated.

Please include permit number _____ in your request.

The completed preblast survey report will be kept on file at the Division of Environmental Protection. A copy will be mailed to the person requesting the survey. Upon receipt you should review the contents. If you disagree with the results you should notify the DEP in writing.

XXXXXXXXXXXXXXXXXXXX

LETTER #2
NOTICE TO PERFORM PRE-BLAST SURVEY
(DATE)

(COMPANY NAME)
(ADDRESS)

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: Requests for Pre-Blast
Survey(s)
Permit No.:

Gentlemen:

Please find enclosed copies of requests for pre-blast surveys for the above-captioned surface mining operation.

You are hereby ordered to conduct the requested surveys in accordance with the provisions of Section 6.8 of the rules and regulations which state:

On a request to the Director by a resident or owner of a man-made dwelling or structure that is located within one-half mile of the permit area, the operator shall conduct a pre-blasting survey of the dwelling or structure and submit a report of the survey to the Director.

These surveys must be conducted by the insurance carrier who has indemnified your company for property damages and bodily injury under the provisions of Chapter 22, Article 3, Section 13(b) (15) of the Code of West Virginia. If you or your carrier elects to engage the services of another agency to conduct the survey, the insurance carrier must certify, in writing, that this person or agency is qualified to do such work. The survey must be submitted and acknowledged by the Office of Mining and Reclamation and a copy provided to the person requesting the survey. Failure to do so may result in enforcement action by this Department.

If you have any questions regarding this matter, please contact this office.

Sincerely,

(SURFACE MINE RECLAMATION SUPERVISOR)

Enclosure(s)

NOTE: Pre-blast survey requests for applications pending approval may be delayed until your application is approved and a permit number is assigned, however, no blasting may occur prior to the survey.

LETTER #3
ACKNOWLEDGEMENT OF REQUEST FOR PREBLAST SURVEY

DIVISION OF ENVIRONMENTAL PROTECTION
(REGIONAL OFFICE ADDRESS)

Person requesting Survey
address

REF: Preblast Survey Request
Permittee Name
Permit No.

Dear ,

We have received your request for a preblast survey. Your request has been documented and forwarded to the above referenced company for processing. They will be contacting you to make arrangements for the preblast survey.

When the survey is completed you will receive a copy. You should take the opportunity to review the report. If you disagree with the results you should notify the WV Division of Environmental Protection at the address above.

Please note that DEP inspection staff cannot evaluate or assess whether the occurrence of cracks and/or structural defects are blast related. However, we will respond to complaints concerning blasting to evaluate if the permittee is in compliance with law, regulation, and permit conditions.

Should you have any questions, please contact our office in (Region/office) at (phone).

Sincerely,

Environmental Inspector Supervisor

LETTER #4
ACKNOWLEDGEMENT OF COMPLETED PREBLAST SURVEY

DIVISION OF ENVIRONMENTAL PROTECTION
Regional Office/Address

DATE

COMPANY NAME
ADDRESS

RE: Preblast Survey(s)
Permit No.

Gentlemen,

This is to notify you that the completed preblast survey(s) requested on the above named permit has (have) been reviewed and accepted by the Division of Environmental Protection for the following individual(s):

PERSON(S) REQUESTING SURVEY

In accordance with 38-2-6.8(a)(3), a copy of each survey shall be provided to the person requesting the survey and to the Director. It is expected that you retain proof (i.e., certified mail receipt) that the person requesting the survey received their copy. In addition, we recommend that you maintain a copy of each survey in your files.

Be advised that it is your responsibility to review the 1/2 mile radius, at a minimum annually, for new construction or ownership which may require notification of the right to a preblast survey.

Should you have any questions regarding this matter, please feel free to contact this office.

Sincerely,

Environmental Inspector Supervisor

cc: Inspector

WEST VIRGINIA DEP PREBLAST SURVEY CHECKLIST

- _____ 1. Application bound together in booklet form
(stapling not acceptable).
- _____ 2. Name and address of owner/tenant, permittee,
SMA# or Permit#, and the structure # from the
permit blasting map must appear on the survey
cover.
- _____ 3. Current insurer with address and phone number.
- _____ 4. Copy of notification and request. Without
formal request (verbal) provide documentation.
- _____ 5. If owner refuses survey, a statement declaring
this situation should be noted and signed by
the owner if possible. If not, then a state-
ment describing the reason shall be stated and
signed by the surveyor.
- _____ 6. A general description of the survey methods and
direction of survey progression, including a key
to any abbreviations used.
- _____ 7. Plan view of structure(s) surveyed; description
of structure exterior and photographs (i.e.,
foundation walls, sidewalks, chimneys, age of
structure, construction materials, porches,
steps, and other exterior surfaces), sufficient
exterior photographs (equal to the standard 35mm
negative film format, 3 x 5 inch prints or

larger) to illustrate a wide angle full frame view of each exterior wall, close-up photos to show any preblast damages or defects noted, and mid-range photographs to illustrate relationships of close-up photos to wide angle photos.

- _____ 8. Type of water supply (public utility, private multi-dwelling water systems, well(s), spring(s), cistern). Sampling and analyses required if not supplied by public utility. Required: t.d.s. or spec. cond. At 25 degrees centigrade, pH, acidity, alkalinity, total Fe, total manganese, and sulfates. Also, for wells, description of system (including treatment if applicable) and other pertinent information (i.e. depth, casing type, age, static water level, flow data, pump capacity, drilled or dug. If an untreated water sample cannot be readily obtained (e.g., plumbing disconnection) a sample of the treated water will be allowable if noted in data. If water sample cannot be secured, surveyor must justify in detail narrative.
- _____ 9. Documentation of each interior room describing condition including any defect (water leaks, cracks, etc.), type of finishing material for each interior wall, ceiling, and floor may be illustrated by sketches, narrative form, and/or

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photographs (35mm or equivalent photographs, 3 x 5 prints or larger. Should the person requesting the survey refuse access, the surveyor shall note this situation and sign the statement.

- _____ 10. Notation of unusual construction technique or method (i.e., sub-standard materials, excessive frame spacings, absence of footer or foundations, pre-fab or modular construction, inefficient guttering/downspouts).
- _____ 11. A notation describing any portion of the structure not documented and explanation of why (e.g., non-accessible areas).
- _____ 12. Signature of person conducting survey, name and address of person or firm conducting survey and a copy of insurance carrier document certifying that the person or firm is acceptable and qualified by the permittee to conduct the survey.
- _____ 13. Photographs submitted with a survey must be 3x5 prints or larger. Contact prints are allowable only if the survey contains a statement that full size (3x5 inch or larger) prints will be made available. Prints must be provided, upon request, to the DEP-OMR and for the owner/resident who requested the survey at no cost

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when there is a questions regarding blasting damage. Also, provide the address and phone number (within the survey) to contact whenever full size prints are needed. Prints must be provided within 30 days of request receipt.

Videos can be used as a supplement only.

_____ 14. Submit surveys to regional DEP office only.

PRE-BLAST SURVEY PROCESS

- PERMITTEE INFORMS OWNERS/RESIDENTS OF HOW TO REQUEST PRE-BLAST SURVEY
- OWNER/RESIDENT SENDS LETTER REQUESTING SURVEY TO DEP REGION OFFICE.
- REGION OFFICE ORDERS PERMITTEE TO CONDUCT REQUESTED SURVEY(S), AND REGION OFFICE NOTIFIES OWNER/RESIDENT THAT THEIR REQUEST FOR SURVEY HAS BEEN RECEIVED AND FORWARDED TO PERMITTEE.
- PERMITTEE COMPLETES SURVEY(S).
- PERMITTEE SUBMITS SURVEY(S) TO REGION OFFICE.
- REGION OFFICE STAMPS & LOGS SURVEY, AND FORWARDS TO HEADQUARTERS.
- HEADQUARTERS REVIEWS SURVEY, (CONTACTING PERMITTEE DIRECTLY FOR CORRECTIONS, IF NEEDED.)
- HEADQUARTERS NOTIFIES REGION OFFICE THAT SURVEY(S) IS ACCEPTED (USUALLY BY PHONE OR FAX). SURVEYS ARE SENT TO REGION OFFICE WITH HARD COPY OF ACCEPTANCE.
- REGION OFFICE NOTIFIES PERMITTEE THAT SURVEY(S) IS ACCEPTED.
- PERMITTEE PROVIDES COPY OF SURVEY TO OWNER/RESIDENT.

SUBJECT: Blasting Damage Claims

1. Purpose: Establish procedure for referring blasting damage claims to the Office of Explosives and Blasting
2. Definitions: Claim of Damage Caused by Blasting activities conducted pursuant to a permit granted under 22-3-1-et seq.
3. Legal Authority: 22-3A-5
4. Policy/Procedures:

Due to the enactment of Chapter 22, Article 3A of the West Virginia Code, the Office of Explosives and Blasting (OEB) has the duty and authority to address claims of alleged blasting damage caused by blasting from coal mining operations.

Therefore, upon receiving a blasting complaint, the assigned inspector will begin the investigation by reviewing the appropriate blasting logs and seismograph readings (if any) to determine if the permittee is in compliance with the Law, Regulations, and permit conditions. When this process is complete, the inspector will notify the complainant that a violation was issued or that the blast(s) and blast records are in compliance. The inspector will also notify the complainant that the damage claim is being referred to the OEB. The OEB will continue the investigation to determine if there is merit to the damage claim and assist the complainant in filing the claim per Article 3A.

The local inspector should continue to complete and distribute an MR-35 and indicate on it that the damage claim has been referred to the OEB and terminate the complaint investigation.

Note: Implementation of this procedure will preclude the need for copies of pre-blast surveys to be kept in the regional office. Please forward any new ones received in the region to the Office of Blasting & Explosives.