

**Section 20**  
**Blasting**

## **1.0 ASSESSMENT**

It may be necessary to blast ledge and large rocks at select locations during construction of the proposed Maine GenLead 115-kilovolt transmission line. The specific areas where blasting will take place will be limited to structure (pole) locations where bedrock is exposed or shallow in depth, potentially to facilitate moving or breaking large boulders to provide access to structure locations. Blasting will not be required at the Keene Road Substation.

If blasting is required, a blasting contractor will precede the construction crews and will probe designated pole and anchor locations using a tracked drilling machine. If bedrock is detected at structure locations, two to four 4-inch diameter pilot holes will be drilled, the explosives will be placed and stemmed in the holes, and the blast will be conducted. Blasting to accommodate such pole construction will only require small charges because of the limited removal of rock required. The shattered rock will then be excavated and the pole installed and backfilled. When bedrock is detected at an anchor location, a two- to four-inch hole will be drilled and a mechanical-expansion steel rockbolt anchor will then be installed.

In limited circumstances, blasting may be required for breaking or moving large boulders that restrict construction equipment from accessing structure locations. However, the relative size of the charge will still be small considering the limited amount of excavation required to allow for vehicle or equipment movement.

No adverse effects from blasting on either sensitive natural resources or private landowners are anticipated because the majority of the project is in remote locations, and the minimal size of the individual charges used would have limited affects outside the immediate vicinity of the blast. In all cases, blasting will be conducted in general conformance with the U.S. Department of Interior Rules 816.61-68 and 81 7.61-68, and the Blasting Guidance Manual, Office of Surface Mining, Reclamation and Enforcement, U.S. Department of Interior, to limit peak particle velocity and ground vibration to safe levels. Noise and air blast effects will be mitigated by use of proper stemming techniques, and the occurrence of flyrock will be limited by using blasting mats, where appropriate. Based on review of aerial photographs and local tax maps, there are 19 structures located within 500 feet of the proposed project and 130 other structures located within 2,000 feet of the proposed transmission line (see Table 20-1).

**TABLE 20-1. STRUCTURES WITHIN 2,000 FEET OF PROJECT CENTERLINE**

Town	0-500 ft.	501 ft.-2000 ft.	Subtotal by Town
<b>Chester</b>			
Dwellings	7	39	46
Other	4	15	19
<b>Woodville</b>			
Dwellings	1	2	3
Other	0	0	0
<b>Mattawamkeag</b>			
Dwellings	0	4	4
Other	1	4	5
<b>Molunkus Township</b>			
Dwellings	1	11	12
Other	0	10	10
<b>Macwahoc Plantation</b>			
Dwellings	0	4	4
Other	0	1	1
<b>North Yarmouth Academy Grant</b>			
Dwellings	0	0	0
Other	0	0	0
<b>Reed Plantation</b>			
Dwellings	0	7	7
Other	0	5	5
<b>Glenwood Plantation</b>			
Dwellings	1	13	14
Other	2	2	4
<b>T3R3 WELS</b>			
Dwellings	1	1	2
Other	0	0	0
<b>T4R3 WELS</b>			
Dwellings	0	0	0
Other	0	0	0
<b>Linneus</b>			
Dwellings	1	8	9
Other	0	4	4
<b>Oakfield</b>			
Dwellings	0	0	0
Other	0	0	0
<b>Totals by Type</b>			
Dwellings	12	89	101
Other	7	41	48
<b>Total</b>	<b>19</b>	<b>130</b>	<b>149</b>

For any blasting that is conducted, Maine GenLead will require the construction contractors to comply with these referenced guidance measures and to provide blasting procedures that incorporate, at a minimum, the following components:

- A pre-blast inspection of structures within 500 feet of any blast site;
- Notification of the Town of Oakfield and each affected landowner of the blasting procedures, methods, safety measures, and blasting schedule (including any test blasts) prior to implementation;
- Ground vibration at structures not owned or controlled by the Permittee or contractor will not exceed the frequency-dependent limits shown in Figure B-1 of Appendix B, Bureau of Mines Report of Investigations 8507;

- Air overpressure (airblast) at properties not owned or controlled by the Permittee or contractor will not exceed the standard given in the Department Rules Chapter 375.10(C)(4)(c);
- Flyrock will be controlled by appropriate methods so that it remains within the construction work area and will not enter a protected natural resource, unless alteration of that resources has been previously approved by the Maine Department of Environmental Protection;
- A record of each blast will be kept that documents blast site locations, type and amount of explosives used, the details of each blast design (number/depth of holes, amount of charge/hole, initiation method, delays if any, amount/type of stemming and blasting mats used), date and time of each blast, name and contact information for adjacent property owners, and other information to be generally consistent with the applicable requirements at 38 M.R.S.A. §490-Z.14.(L);
- Procedures for safe storage, transportation, use and clean up of blasting equipment and explosive materials, including appropriate signage indicating its location; and
- Individual site superintendent(s) will be responsible for planning, scheduling, and implementing all blasting during project construction, and ensuring that these individuals are informed of blasting procedures required by the Applicant, the government guidance documents referenced above, and Project permit conditions.