

SECTION 20. BLASTING **20-1**

 20.A ASSESSMENT 20-1

TABLES

TABLE 20-1. STRUCTURES WITHIN 2,000 FEET OF PROJECT AREA¹ 20-2

SECTION 20. BLASTING

20.A Assessment

It may be necessary to blast ledge and large rocks at select locations during construction of the proposed Northeast Reliability Interconnect (NRI). The specific areas where blasting will take place will be limited to structure (pole) locations where bedrock is exposed or shallow in depth and potentially to facilitate moving or breaking large boulders to provide access to structure locations. In addition, blasting may be required to install grounding and foundations for the modifications to the Orrington 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, six to ten four-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 three-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 of large boulders which 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 because of the minimal size of the individual charges used. Bangor Hydro-Electric Company (BHE) will coordinate with Maritimes & Northeast Pipeline, LLC to determine specific requirements for blasting near the pipeline. In all cases blasting will be conducted in general conformance with the *U.S. Department of Interior Rules 816.61-68 and 817.61-68*, 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 42 residences located within 500 feet of the proposed project and 365 structures located within 2,000 feet of the proposed project (see Table 20-1).

TABLE 20-1. STRUCTURES WITHIN 2,000 FEET OF PROJECT AREA¹

Town	0-500'	501'-1000'	1001'-1500'	1501'-2000'		Total by Town
Orrington						3
Trailer			1			
House				1		
Barn				1		
Brewer						56
Trailer			2			
House	8	12	13	21		
Commerical		3				
Holden						130
Trailer		34	19	27		
House	3	13	10	19		
Barn			1			
Commerical			2			
Industrial Facility			1	1		
Eddington						147
Trailer	1	2		6		
House	16	49	41	29		
Commerical		3				
Bradley						6
Trailer			1	5		
T32 MD						5
Camps	4					
Valve Site	1					
Great Pond						2
Camps	2					
T34 MD						1
Valve Site	1					

TABLE 20-1. STRUCTURES WITHIN 2,000 FEET OF PROJECT AREA¹

Town	0-500'	501'-1000'	1001'-1500'	1501'-2000'		Total by Town
T37 MD BPP						4
Camp	1	2				
Valve Site	1					
NO. 21 TWP						2
Camp	1					
Valve Site	1					
Princeton						6
House		1	1	2		
Barn		1	1			
Baileyville						2
House & 1 Compressor Station	1					
Residences	29	111	88	110		
Camps	8					
Valve Sites	4					
Compressor Station	1					
Barns		1	2	1		
Commerical		6	2			
Industrial Facility			1	1		
Total	42	118	93	112		<u>365</u>

¹ Distances are approximate and were scaled from aerial photographs.

If blasting is conducted, BHE 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 privately owned structures within 500 feet of any blast site, and notify each affected landowner of the blasting procedures, methods, safety measures and blasting schedule (including any test blasts) prior to implementation;

- A daily blasting log 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, amount/type of stemming and blasting mats used), date and time of each blast, and name and contact information for adjacent property owners;
- Adequate procedures for storage and transportation of blasting equipment and explosive materials, including appropriate signage indicating its location;
- Safety measures associated with the storage, transportation, use and clean up of blasting equipment and materials; and,
- The individual site superintendent(s) that will be responsible for planning, scheduling and implementing all blasting during project construction, and ensure that these individuals are informed of all blasting procedures required by BHE, the government guidance documents referenced above, and project permit conditions.