



**Boardman to Hemingway
Transmission Line Project**

Appendix F—Framework Blasting Plan

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1 1.0 INTRODUCTION

2 Idaho Power Company (IPC) is proposing to construct and operate approximately 304 miles of
3 new transmission line known as the Boardman to Hemingway Transmission Line Project
4 (Project), including 299 miles of a 500-kilovolt (kV) single circuit and rebuild of 5.3 miles of
5 existing 138-kV and 69-kV double circuits between the proposed Grassland Substation near
6 Boardman, Oregon, and the Hemingway Substation approximately 30 miles southwest of
7 Boise, Idaho. The Project includes ground-disturbing activities associated with the construction
8 of above-ground single- and double-circuit transmission lines involving towers, access roads,
9 staging areas, fly yards, pulling sites as well as associated substations, communication sites,
10 and electrical-supply distribution lines. The Project crosses private land and public lands
11 administered by the Bureau of Land Management (BLM), U.S. Forest Service (USFS),
12 and states of Idaho and Oregon.

13 1.1 Blasting Plan Purpose

14 This Framework Blasting Plan (Plan) describes the framework for the procedures,
15 safety measures, and monitoring the contractor will adhere to while implementing blasting
16 activities along the transmission line right-of-way (ROW) during construction of the Project.
17 The contractor will be required to submit a detailed blasting plan (Contractor's Blasting Plan) to
18 IPC that is consistent with the provisions in this Plan. The objective of this Plan is to be
19 consistent with requirements for blasting defined by federal, state, and local regulations.

20 2.0 GENERAL REQUIREMENTS

21 The contractor will comply with the rules and regulations of the U.S. Department of Labor
22 (DOL); the U.S. Department of Transportation (DOT); the Federal Bureau of Alcohol, Tobacco,
23 and Firearms (ATF); the Occupational Safety and Health Administration (OSHA); and all federal,
24 state, county, and local regulations governing the transportation, storage, handling, and use of
25 explosives. Regulations related to blasting that apply to the Project include, but may not be
26 limited to, those listed in Table 2-1.

27 The contractor shall verify applicable regulations and obtain and provide IPC with copies of all
28 required blasting-related permits.

29 Blasting operations shall be conducted under the direct and constant supervision of personnel
30 legally licensed and certified in the jurisdiction blasting occurs. The contractor shall provide IPC
31 with documentation of their experience and licenses prior to blasting.

32 Blasting shall be used only after other reasonable means of excavation have been researched
33 and determined to be unsuccessful in achieving the required results. IPC may specify locations
34 (e.g., near adjacent utilities or structures and environmentally sensitive areas) where
35 consolidated rock shall be removed by approved mechanical equipment in lieu of blasting.

36 Flyrock shall be controlled in all areas, generally by a combination of blast design, adequate
37 stemming, and matting, including but not limited to fabricated mats, overburden, and sand-pad
38 matting. Controlled blasting may be considered for flyrock control where other methods are
39 unsafe or ineffective. The contractor shall demonstrate effective blasting design for flyrock
40 control during test shots where the use of controlled blasting without blast mats or padding is
41 proposed. If flyrock should occur, that flyrock shall be immediately collected and disposed of at
42 disposal sites approved by IPC and property owners.

1 **Table 2-1. General Blasting Requirements**

Agency	Rule/Regulation	Permit Required
US Bureau of Alcohol, Tobacco and Firearms (ATF)	Explosives License/Permit	Federal ATF Explosive User Permit- ATF Form 5400.13/5400.16
US Department of Transportation (DOT)	49 CFR 177- Carriage by Public Highway	Shipments must be accompanied by shipping papers, per 49 CFR 177.817
US Occupational Safety and Health Administration (OSHA)	1926.55- Occupational Health and Environmental Controls	(no permit, but also never saw the word blasting!)
OSHA	1926.900- Safety and Health Regulations for Construction	(no permit)
OSHA	29 CFR 1910.109 – Explosives and Blasting Agents	(no permit)
State of Oregon Fire Marshal	ORS Chapter 480.200, and OAR Chapter 837-012-1200	Certificate of possession, and certificate of registration for magazines
Oregon Department of Fish and Wildlife	ORS 509.140 et seq. OAR 635-425-000 et seq.	In-water Blasting Permit (ORS talks about the need for a permit, OAR is specific to the In-Water Blasting Permit)
Oregon Department of State Lands	ORS- 198.600 et seq. OAR 141-085-0005 et seq.	State Lands Proprietary Authorization, Removal-Fill Permit
Oregon Occupational Safety and Health Division	OAR 437-03-1926.902(d), Construction OAR1926.900 Blasting and the Use of Explosives Subdivision U.	No permit (funny, the blasting qualifications don't even mention the certifications required by the fire marshall)
Oregon Department of Environmental Quality	OAR 340-035-003	No permit (this is a noise ordinance that specifies certain decibels depending on time of day or night)
Local police or fire departments		Should check for local permits

2 **3.0 CONTRACTOR'S SITE-SPECIFIC BLASTING PLAN**

3 The contractor shall submit a Contractor's Blasting Plan that will be reviewed by IPC. The
4 Contractor's Blasting Plan must be prepared by a qualified engineer. IPC's approval of the
5 Contractor's Blasting Plan shall not relieve the contractor of liability for harmful consequences or
6 violation of permit requirements of its blasting operations. The Contractor's Blasting Plan will
7 provide general specifications for all blasting activities.

8 The contractor will implement the environmental protection measures (EPMs) included in
9 Appendix E of the Plan of Development as part of the Contractor's Blasting Plan:

1 **4.0 TRANSPORTATION AND STORAGE OF EXPLOSIVES AND**
2 **BLASTING MATERIALS**

3 When transporting and storing explosives and blasting material, the contractor will implement
4 the EPMs included in Appendix E of the Plan of Development. :

5 **5.0 PROTECTION OF ABOVEGROUND AND UNDERGROUND**
6 **STRUCTURES**

7 The contractor will exercise control to prevent damage to aboveground and underground
8 structures, including buildings, pipelines, utilities, springs, and water wells. The contractor will
9 implement the EPMs included in Appendix E of the Plan of Development.

10 **6.0 SAFETY**

11 The contractor shall include in its procedures all federal, state, county, and local safety
12 requirements for blasting. To protect worker and public safety, the contractor's blasting
13 procedures will implement the EPMs included in Appendix E of the Plan of Development.

14 **7.0 MONITORING**

15 Before, during, and after blasting, the contractor will monitor the effects of the blasting
16 operations on the environment by doing the following:

- 17 • Measure the PPV from at least 3 points, including any pipeline, water well, potable
18 spring, utility, foundation or aboveground structure, or other point of interest within
19 200 feet of the blast area.
- 20 • Following each blast, the blast area shall be examined for indications of excessive
21 overbreak, cracking, or ground displacement (block movement). The contractor shall
22 immediately suspend blasting operations and review the blasting procedures if
23 overbreak or ground cracks extending half the distance to the edge of the permanent
24 ROW occurs.
- 25 • Seismographic monitoring can be discontinued only with written IPC authorization if
26 blasting performance consistently produces PPVs lower than the maximum allowable
27 limit at relevant points of interest.
- 28 • Complete the blasting log immediately after each blast and submit a copy to IPC.
- 29 • If blasting is planned within 200 feet of water well or spring used as a potable water
30 source, basic water-quality testing will be conducted before and after blasting (well
31 yield, pH, total dissolved solids, suspended solids, nitrates).
- 32 • A biological monitor will monitor the effects of blasting on wildlife species.
33 See Appendix H for details on proposed wildlife monitoring.

