



**MAINE POWER  
RELIABILITY PROGRAM**  
A CENTRAL MAINE POWER COMPANY PROGRAM

**PERU, MAINE  
APPLICATION FOR  
SHORELAND ZONING PERMIT  
AND  
FLOOD HAZARD DEVELOPMENT  
PERMIT**

**Section 243A Transmission Line Construction  
&  
Section 229 Transmission Line Rebuild**

***Prepared for:***

Central Maine Power Company  
83 Edison Drive  
Augusta, Maine 04336

***Prepared by:***



TRC  
400 Southborough Drive  
South Portland, ME 04106

February 2009

## **APPLICATION FORM**

# TOWN OF PERU

P.O. Box 429 26 Main Street Peru, ME 04290  
(207) 562-4627 (207) 562-8653 (fax) townperu@roadrunner.com

PLEASE READ this cover sheet!!! Application for Property Change/Building Permit issuance is attached.

**Section 1. Construction Permits:** No building or structure shall hereafter be built, enlarged or moved without a permit from the Board of Selectmen. The applicant for a Building Permit will provide the Board of Selectmen with a plan of the proposed work and the fee as specified in Section 3. If the Board of Selectmen find that the structure and its location will meet all requirements of existing law, they will issue a Building Permit. If the applicant fails to comply with these requirements, or if it appears that the proposed work does not comply with the requirements of existing law applicable to the subject, the Board of Selectmen shall refuse to issue the Building Permit. Any fees collected will be refunded minus a \$10.00 processing fee. If requested, the Board of Selectmen will state, in writing, the reason(s) for such a refusal.

**Section 2. Term of Permit:** No Building Permit or renewal thereof granted hereunder shall be valid unless the work for which it is issued is commenced within 6 (six) months from date of issue or renewal, and the work so commenced is completed within 1 (one) year. The Board of Selectmen may allow a greater period for the completion of said work.

**Section 3. Building Permit Fees.**

0 – 200 sq. ft. = \$10.	201 – 500 sq. ft. = \$15.	501 – 800 sq. ft. = \$20.	
801 – 1000 sq. ft. = \$25.	1001 – 1200 sq. ft. = \$30.	1201 – 1400 sq. ft. = \$35.	1401 – 1600 sq. ft. = \$40.
1601 – 1800 sq. ft. = \$45.	1801 – 2000 sq. ft. = 450.	2001+ sq. ft. = \$50 plus \$.03 per sq. ft over 2000	

**Section 4. Penalty.** Whoever violates any of the provisions of this ordinance shall be punished by a fine of not more than \$100.00 (One hundred dollars) plus costs which shall be recovered on complaint to the use of the Town of Peru.

Please complete and return to the Town Office with the appropriate application fee.

If the property is located in Shoreland Zoning, the application must be reviewed and a decision rendered by the Code Enforcement Officer and Planning Board prior to any final decision from the Board of Selectmen. The Planning Board meets on an "as needed" basis. If the property is NOT in Shoreland Zoning, the application must be reviewed and a decision rendered by the Code Enforcement Officer prior to any final decision from the Board of Selectmen.

Any new or modified entrance to a town road requires a permit from the Road Commissioner and must be issued prior to any other permit issuance. It is the responsibility of the applicant and/or owner to check the building site for road runoff/ drainage situations prior to construction. The Town is NOT responsible for problems resulting from owner negligence. If a culvert is required, payment for culvert is required before receipt of culvert. Decisions on need, type/size of culvert are solely the discretion of the Road Commissioner. The Town will install the culvert and be responsible for the maintenance thereafter.

If you are located on a state highway, you must contact MDOT regarding utility installation or highway opening (driveway) permits. You may do so at [www.mainedot.gov](http://www.mainedot.gov) (Licenses, Permits & Applications) or by calling 207-624-3488 (Charles Horstmann). Peru is located in Region 3.

Plumbing Inspector, David Errington must be contacted prior to a Property Change Permit being issued if there is new plumbing or additional living space involved to determine the need for a waste disposal design and/or a plumbing permit. Any costs billed to the Town by the PI or CEO that are over and above fees already paid, will be re-billed to the applicant for reimbursement to the Town.

Concerns involving the Town must be addressed through the proper channels (Plumbing Inspector, Code Enforcement Officer, Road Commissioner, Board of Selectmen) prior to construction. Any difficulty arising from the permit process will initially be submitted to the Board of Selectmen.

## Directory

John (Jack) Plumley, Code Enforcement Officer 597-2299  
David Errington, Plumbing Inspector 562-8081 (148 Auburn Road, Peru)  
Joe Roach, Road Commissioner 562-4657 (O) 557-1208 (Cell)  
William Hussey, Fire Chief 562-7079 (H)

**Planning Board** Joe Roach J.R. Worthington Skip Campbell Steve Fuller Ronald Ashworth  
557-1208 562-7499 562-7303 562-8336 562-8487

**Selectmen** Jim Pulsifer Bill Scott Rodney Jamison Corey Jacques Laurieann Milligan  
562-8278 562-7089 562-7291 562-8663 562-8185

# TOWN OF PERU

P.O. Box 429 26 Main Street  
Peru, ME 04290  
(207) 562-4627 562-8653 (fax)  
townperu@roadrunner.com

Fee \_\_\_\_\_

Date Town Office received: \_\_\_\_\_

## BUILDING / LAND USE & SHORELAND ZONING PERMIT APPLICATION

To be used in conjunction with the Town of Peru Shoreland Zoning Ordinance.

1. Applicant / Property Owner Central Maine Power Company	2. Mailing Address 83 Edison Drive, Augusta, ME 04336	3. Telephone (207) 623-3521
4. Physical address 83 Edison Drive, Augusta, ME 04336	5. Tax Map #, Lot # Linear Electric Transmission Line Project - Multiple map and lot numbers	6. Book/Page/Date of ownership See Exhibit 5 - Proof of Right Title and Interest
7. Contractor Name, Address, Phone TRC 400 Southborough Drive, South Portland, ME 04106 (Attention: Richard Paquette) (207) 879-1930 (Ext. 126) rpaquette@trcsolutions.com		
8. Description of property including a description of all proposed construction, (e.g. land clearing, road building, septic systems, wells.)  The Maine Power Reliability Program (MPRP) is a project by Central Maine Power Company (CMP) to upgrade Maine's bulk power system. The portion of the MPRP located in the Town of Peru involves the construction of a new 115kV electric transmission line identified as "Section 243A" and the rebuild of the existing 115kV electric transmission line identified as "Section 229" (see Exhibits 1 and 2). These proposed upgrades are part of the MPRP, which will improve the reliability, safety, and security of the bulk power transmission system in Maine, while at the same time meeting the increasing demands for electrical power. CMP will not need to acquire additional lands for this purpose in Peru; rather this portion of the MPRP will be built entirely on land that CMP already owns. Refer to the attached application document for additional detail.		
9. Is there an existing septic disposal system? Type?  Not applicable.	10. Estimated cost of construction  Estimated construction cost in Peru: \$35.3 Million	
11. Lot area (sq. ft.)  Total MPRP Corridor area in Peru is approximately 140 acres	12. Frontage on road (ft.)  Not applicable.	
13. Sq. ft. of lot to be covered by non-vegetated surfaces CMP proposes to install a total of 201 transmission line poles in Peru for the MPRP. Each pole will occupy an area of approximately 5 square feet. No non-vegetated surfaces (e.g., pavement, permanent roads) are proposed in Peru. See application for more detail.	14. Is the proposed development located in the floodplain? What is the elevation above 100-year flood?  See attached floodplain application.	
15. Frontage on water body (ft.)  Not applicable	16. Height of proposed structure. No "structures" are proposed. See attached application.	
17. Existing use of property  Existing 115 kV Transmission Line	18. Proposed use of property— seasonal / year round?  Construct New Section 243A 115 kV Transmission Line Rebuild Existing Section 229 115 kV Transmission Line	

No "structures" as defined in the SLZ or Floodplain Ordinance are proposed for the MPRP in Peru. Refer to the attached application for additional details.

Note: Questions 19—23 apply only to expansions of portions of existing structures that are less than the required setback. Questions 21—23 apply only to projects where the Special Exception Allowance is sought.

19. a) Existing total floor area for all structures within 75' of a water body or wetland: _____ sq. ft.	20. a) Proposed total floor area of all structures within 75' of a water body or wetland (not to exceed 1000 sq. ft.) _____ sq. ft.
b) Existing total floor area for all structures within 100' of a great pond or river flowing to a great pond: _____ sq. ft.	b) Proposed total floor area of all structures within 100' of a great pond or river flowing to a great pond (not to exceed 1500 sq. ft.) _____ sq. ft.
c) Existing height of structure within 75' of a water body or wetland: _____ ft.	c) Proposed height of structure within 75' of a water body or wetland: _____ ft.
d) Existing height of structure greater than 75', but less than 100' from a great pond or river flowing to a great pond: _____ ft.	d) Proposed height of structure greater than 75', but less than 100' from a great pond or river flowing to a great pond. _____ ft.

NOTE: Refer to the Peru Shoreland Zoning Ordinance to define what constitutes a structure, height of a structure, floor area and basement and apply those definitions uniformly when calculating existing and proposed expansions.

NOTE: No portion of an accessory structure that is located less than the required setback from the water body or wetland may be expanded.

NOTE: Proposed total floor area includes the floor area of existing structure(s) within the setback area, plus the area of the proposed expansion.

**SPECIAL EXPANSION ALLOWANCE ONLY**

No "structures" as defined in the SLZ or Floodplain Ordinance are proposed for the MPRP in Peru. Refer to the attached application for additional details.

a) Proposed total floor area for all structures within 75' of a water body or wetland (not to exceed 1500 sq. ft.) _____ sq. ft.	b) Proposed total floor area for all structures within 100' of a great pond or river flowing to a great pond (not to exceed 2000 sq. ft.) _____ sq. ft.
22. Attach documentation / certification of compliance with vegetative clearing standards within 50' of the water body or wetland, or attach planting / re-vegetation plan as required.	
23. Attach required storm water mitigation plan.	

Additional permits, approvals, and/or reviews required (check if required):

Exterior plumbing permit (Approved HHE 200 application form)  Interior plumbing permit  DEP permit

Other: Public Utilities Commission, DEP Site Location Development, Natural Resource Protection Act, Air Emissions License, Stormwater Management, Submerged Lands Lease, Utility Location Permit, U.S. Army Corps of Engineers,

NOTE: Applicant is advised to consult with the Code Enforcement Officer and appropriate state and federal agencies to determine whether additional permits, approvals, and reviews are required.

I certify that all information given on this 4-page application is accurate. All proposed uses shall be in conformance with this application and the Town of Peru Shoreland Zoning Ordinance. I agree to future inspections by the Code Enforcement Officer at reasonable hours.

Applicant's signature

Date

## SITE PLAN

Please include:

- 1) Lot lines
- 2) Area to be cleared of trees and other vegetation
- 3) Exact position of proposed structures including decks, porches and outbuildings with accurate setback distances from the shoreline, side and rear property lines.
- 4) Location of proposed wells, septic systems and driveways
- 5) Areas and amounts to be filled or graded—must provide a soil erosion control plan describing the measures to be taken to stabilize disturbed areas before, during and after construction.
- 6) If the proposal is for the expansion of an existing structure, please distinguish between the existing structure and the proposed expansion.

Scale: \_\_\_\_\_ in. = \_\_\_\_\_ ft.

**Refer to Exhibit 1 - 2 for detailed project mapping as follows:**

### **Exhibit 1**

**Figure 1: MPRP Project Scope Map**

**Figure 2: USGS Project Overview Map**

**Maps 1 - 9: Aerial Photo Project Scope and Natural Resources Maps**

### **Exhibit 2**

**Transmission Line Configuration Cross-sections**

## FRONT OR REAR ELEVATION

Refer to Exhibit 1 - 2 for detailed project mapping as follows:

### Exhibit 1

Figure 1: MPRP Project Scope Map

Figure 2: USGS Project Overview Map

Maps 1 - 9: Aerial Photo Project Scope and Natural Resources Maps

### Exhibit 2

Transmission Line Configuration Cross-sections

## SIDE ELEVATION

Draw a simple sketch showing both the existing and proposed structures with dimensions.

**AGENT AUTHORIZATION LETTER**



Central Maine Power

August 15, 2008

Bureau of Land & Water Quality  
Division of Land Resource Regulation  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, ME 04333-0017

Municipalities (various)

Federal Agencies (various)

RE: Central Maine Power Company - Maine Power Reliability Program (MPRP)  
Agent Authorization

To Whom It May Concern:

Central Maine Power Company hereby authorizes TRC Engineers, Inc. and TRC staff to act as its agent for all activities associated with the acquisition of Federal, state and local permits related to the above referenced project.

Please call me at 626-9557 or email me at [gerry.mirabile@comco.com](mailto:gerry.mirabile@comco.com) with any questions. Thank you.

Sincerely,

Gerry J. Mirabile  
Lead Analyst - Compliance

An Equal Opportunity Employer

83 Edison Drive | Augusta, ME 04336

tel (207) 623-3521

[www.comco.com](http://www.comco.com)

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An Energy East Company

## **MAINE POWER RELIABILITY PROGRAM DESCRIPTION**

### ***Maine Power Reliability Program***

The Maine Power Reliability Program (MPRP) is a project by Central Maine Power Company (CMP) to upgrade Maine's bulk power system. The vast majority of Maine's bulk power transmission system was placed into service in the early 1970s and is now reaching the limits of its ability to meet the growing electrical demand of Maine customers. Since the last major transmission infrastructure was completed more than 30 years ago, the patterns of both available generation and customer load have shifted significantly. For example, population has become more concentrated in the southern part of the state, while the generation needed to serve that load is now more distant and dispersed. When these pattern changes are combined with the increasing peak demand the current transmission infrastructure in Maine will, in very few years, become inadequate. In addition, the reliability and security standards mandated by law and administered by the North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council, Inc. (NPCC), and ISO New England (ISO-NE) have changed significantly in recent years. CMP must upgrade its bulk power system with this proposed project in order to meet the mandatory standards and to provide reliable electric service to Maine customers into the future.

CMP's system consists of both "transmission" and "distribution" lines. Transmission lines function as the highway system of the electrical grid by feeding electricity from where it is generated (such as at power plants) to substations. From there, the distribution system takes over by carrying the electricity from substations to customers. Transmission lines in Maine are typically operated at one of two levels – 115,000 volts, also expressed as 115 kilovolts ("kV") and 345,000 volts, often referred to as 345 kV.

CMP's 345 kV transmission system was built and put into service in 1971. Since then power consumption has more than doubled. In recent years, both CMP and ISO-NE have identified certain reliability issues with the 345 kV system that need to be assessed and addressed.

In January of 2007, the MPRP began a comprehensive needs assessment of CMP's bulk power transmission system. The study included a 10-year forecast to evaluate the system in Maine, including a review of system reliability and performance under various system conditions and operating scenarios, as well as a needs assessment to ensure a reliable transmission system in the most cost-effective manner possible. The study identified a number of significant reliability issues with Maine's bulk transmission system, including insufficient 345 kV transmission capacity, insufficient 115/345 kV transformation capacity, and insufficient transmission support and/or infrastructure in all regions served by CMP.

After completing the needs assessment, the MPRP team went to work to study possible solutions. This included both transmission and non-transmission alternatives, including energy efficiency, before designating its preferred solution. CMP ultimately selected a primarily transmission solution (a small geographic area know as the South Portland loop will be addressed through non-transmission alternatives) based on a number of factors, including electrical performance, cost effectiveness, impacts to landowners, and Maine's environment under various forecasts of future conditions. The proposed solution consists of a network of 345 kV and 115 kV transmission lines and associated substations throughout CMP's service territory where particular needs were identified (see Figure 1).

The proposed transmission solution ranges from Eliot in the south, Rumford in the west, Warren and Searsport in the east, and Orrington and Pittsfield to the north. In all, MPRP will encompass nearly 80 Maine towns, and will require approvals from the Maine Public Utilities Commission, the Maine Department of Environmental Protection, the Army Corps of Engineers, and numerous municipalities.

### ***Project Description in Peru***

The portion of the MPRP located in Peru involves the construction of a new 115 kV electric transmission line identified as “Section 243A” and the rebuild of the existing 115 kV electric transmission line identified as “Section 229” (Figure 2). These proposed upgrades are part of the MPRP, which will improve the reliability, safety, and security of the bulk power transmission system in Maine, while at the same time meeting the increasing demands for electrical power. CMP will not need to acquire additional lands for this purpose in Peru; rather this portion of the MPRP will be built entirely within the existing corridor on land that CMP already owns (see attached maps in Exhibit 1 and 2). Additional vegetation clearing in some portions of the existing CMP corridor is planned.

The following sections provide additional detail on the proposed MPRP facilities in Peru.

**Section 229 (Rebuild)** – Section 229 is an existing 115 kV electric transmission line that traverses the northern portion of the Town of Peru (Figure 2). The existing Section 229 CMP corridor crosses the Androscoggin River from Dixfield and enters the northeastern corner of Peru (see Map 1 in Exhibit 1). From this point the corridor crosses Route 108 (Auburn Road) and runs to the west and northwest roughly paralleling the Androscoggin River and Route 108 for approximately 7.7 miles before exiting Peru at the Rumford/Peru municipal boundary. The Section 229 corridor crosses a number of roads in Peru including Holman Road, Greenwoods Road, Miller Road, Ridge Road, Gammon Road, and Dickvale Road. CMP proposes to rebuild the entire Section 229 transmission line along this corridor (see Maps 1 – 9 in Exhibit 1).

Section 229 currently runs on H-frame structures that are typically 45-feet tall within an existing 150-foot wide corridor. An underground natural gas pipeline is also located within this corridor and is situated, in general, within a 50-foot wide easement abutting the southern edge of the existing corridor. CMP proposes to rebuild Section 229 offset to the south from the center of the corridor and pipeline on primarily single-pole structures that are typically 75 feet<sup>1</sup> above ground. The new Section 243A line will be offset to the north from the center of the corridor. CMP is proposing to use the taller single pole structures so that both transmission lines can be co-located within the existing 150-foot corridor. Through the use of the existing corridor, CMP has minimized project impacts to both landowners and environmental resources. Transmission line configuration cross-sections showing typical above ground pole heights are provided in Exhibit 2.

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<sup>1</sup> Structure heights vary due to varying terrain and the need to achieve spans which will avoid or minimize impacts to natural resources. Typical above ground structure heights are provided but some structures may exceed those heights in specific instances. Exhibit 3 includes a table identifying the number of structures within specific height ranges in Peru.

Construction of each single pole will require approximately 40 square feet of ground disturbance. In addition, CMP proposes to install H-frame structures at two locations along Section 229 based on engineering requirements. Construction of each H-frame structure will require approximately 120 square feet of ground disturbance.

**Section 243A (New)** – Adjacent to the re-build of Section 229, CMP also proposes to construct approximately 7.7 miles of new 115 kV electric transmission line within Peru as part of the MPRP. This new transmission line will be constructed entirely within the existing 150-foot wide CMP Section 229 corridor in Peru (see attached maps in Exhibit 1). As with Section 229, the new Section 243A line will be constructed using primarily single-pole structures that are typically 75 feet<sup>2</sup> above ground. CMP is proposing to use the taller single pole structures so that both transmission lines can be co-located within the existing 150-foot corridor. Transmission line configuration cross-sections showing typical above ground pole heights are provided in Exhibit 2. Construction of each single pole will require a total of approximately 40 square feet of ground disturbance. In addition, at two locations along Section 243A, CMP proposes to install H-frame structures based on engineering requirements. Construction of each H-frame structure will require approximately 120 square feet of ground disturbance.

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<sup>2</sup> Structure heights vary due to varying terrain and the need to achieve spans which will avoid or minimize impacts to natural resources. Typical above ground structure heights are provided but some structures may exceed those heights in specific instances. Exhibit 3 includes a table identifying the number of structures within specific height ranges in Peru.

**SHORELAND ZONING PERMIT APPLICATION**

## SHORELAND ZONING PERMIT APPLICATION

The following application describes the MPRP's compliance with the Town of Peru Shoreland Zoning Ordinance. More specifically, this application identifies the shoreland zoning districts impacted by the MPRP and addresses the permitted land uses within these zones and the land use and approval standards of the ordinance.

### *Shoreland Zoning Districts Impacted*

The proposed project will traverse two districts in the Shoreland Zone in Peru:

- Limited Residential (LR); and
- Stream Protection (SP).

These individual zoning districts and their locations are identified and described as follows:

#### *1. A LR District located along the Androscoggin River*

Construction of the new Section 243A transmission line and the rebuild of Section 229 will cross a LR District associated with the Androscoggin River (see Map 1 in Exhibit 1). This shoreland zone extends 250 feet horizontally from the normal high water line of the Androscoggin River. The existing Section 229 CMP corridor crosses the river approximately 350 feet northwest of the convergence of the Dixfield, Canton and Peru municipal boundaries within the Androscoggin River. The existing corridor is approximately 150 feet in width and currently contains one 115 kV electric transmission line (Section 229) carried on a H-frame structure anchored in the ground by two poles.

CMP proposes to remove the existing H-frame structure and install two new single transmission line poles (Structures 243A-143 and 229-71) within the 250-foot shoreland zone of the Androscoggin River in Peru. Installation of each pole will result in approximately 40 square feet of ground disturbance. Approximately 0.15 acres of vegetation clearing is proposed along the northern edge of the existing corridor within this shoreland zone. Herbicides will not be used within 25 feet of this waterbody, or any other waterbody or open water wetland. In addition, CMP will implement the standards in its "Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects" (2007), (see Exhibit 6.) This manual contains erosion and sedimentation control requirements, standards, and methods that will be used to protect soil and water resources during construction of the various MPRP components. Refer to Section Q on Page 10 (Erosion and Sedimentation Control) for additional background on the CMP guidelines. Given the project will take place within an existing CMP utility corridor and the proposed disturbance area is very limited, the transmission line is not expected to affect the ecological functionality of the river or associated wetlands.

#### *2. A SP District located along Worthley Brook*

A SP District associated with Worthley Brook will be spanned by the construction of the new Section 243A transmission line and rebuild of the existing Section 229 transmission line in

Peru (see Map 2 in Exhibit 1). This shoreland zone extends 75 feet horizontally from the normal high water line of Worthley Brook. This SP district is crossed by the existing corridor approximately 1,400 feet east of Greenwood Road. No transmission line poles or vegetation clearing is proposed within this SP District as part of the MPRP.

### 3. *A SP District located along Spears Stream*

A SP District associated with Spears Stream will be crossed during the construction of the new Section 243A transmission line and rebuild of the existing Section 229 transmission line in Peru (see Maps 7 and 8 in Exhibit 1). This shoreland zone extends 75 feet horizontally from the normal high water line of Spears Stream. This SP district is crossed by the existing corridor approximately 1,200 feet southeast of Dickvale Road in Peru.

There is currently one existing H-frame Section 229 structure (Pole 157) located within the 75-foot shoreland zone of Spears Stream. This H-frame structure will be removed as part of the MPRP and two new single transmission line poles will be installed within this SP District as part of the construction of the new Section 243A and rebuild of Section 229 (Structures 243A-220 and 229-149). Installation of each single pole will result in approximately 40 square feet of ground disturbance and no vegetation clearing of the corridor is planned within this SP District.

In summary, two existing Section 229 H-frame structures (four poles total) will be removed and four new single poles will be added to the shoreland zone in Peru as part of the MPRP.

### ***Permitted Land Uses***

The MPRP is classified under the Ordinance as an “*Essential Service*,” which, pursuant to Table 1, is a permitted use in the LR and SP districts with the approval of the Planning Board. Essential services are also subject to the specific requirements of Section 15(L) of the Ordinance, addressed below.

### ***Land Use Standards***

The following section addresses the Land Use Standards found in Section 15 of the Peru Shoreland Zoning Ordinance.

#### **A. Minimum Lot Standards**

Not applicable.

#### **B. Principal and Accessory Structures**

Not applicable.

#### **C. Piers, Docks, Wharfs, Bridges, etc.**

Not applicable.

#### **D. Campgrounds**

Not applicable.

**E. Individual Private Campsites**

Not applicable.

**F. Commercial and Industrial Uses**

Not applicable.

**G. Parking Areas**

There will be no parking areas associated with the project.

**H. Roads and Driveways**

There will be no new permanent roads or driveways associated with the project, other than CMP-maintained access points and ways suitable for routine and urgent maintenance by its own vehicles. Temporary access ways, which do not add any impervious surface area, will be established for use during the construction phase. This will be an ongoing process as access will be established to areas undergoing immediate construction. Determinations surrounding the exact nature of the construction of these temporary access ways will be made by the contractor in consultation with an environmental representative. All access paths are temporary and will be removed once construction is complete. In general a “temporary long-term” access way will be established for general access to the corridor for construction purposes. These temporary access ways will be in place for more than one growing season, but will be removed once all aspects of construction in that area are complete. Access to pole sites, either for removal or installation, will be achieved by temporary access ways which will be in place for no more than one growing season. Areas where soils have been disturbed will then be mulched with straw. Vegetation will be allowed to reestablish itself once the temporary access ways have been removed.

Measures will be taken to avoid and minimize impacts to streams and wetlands through the use of crane mats, temporary bridges, geo-textile fabrics, and culverts, when necessary. Appropriate erosion controls will be installed wherever necessary. If necessary, mats will be placed parallel to the upland edge as abutments to further protect bank stability and establish stability. No extensive grubbing (grading to remove root systems) within wetland crossing areas will be done prior to mat placement. However, some minor grading may be required to ensure mat stability and construction access safety. All such grading will be performed on a limited basis and only with prior approval by CMP’s environmental representatives. Streams that are too wide to cross with crane mats or temporary bridges will be avoided.

**I. Signs**

There will be no signage associated with the project.

**J. Storm Water Runoff**

With the exception of the immediate area occupied by the support structures, there is no increase in impervious surface area associated with the transmission line, therefore, there will be no significant storm water run-off generated from the project. All new construction will be designed to minimize storm water runoff from the site in excess of the natural predevelopment conditions.

**K. Septic Waste Disposal**

Not applicable.

**L. Essential Services**

(1) A guiding principle in the design of the MPRP transmission line upgrades has been to utilize the existing transmission line corridors to the maximum extent possible. Only where existing corridors cannot accommodate the proposed upgrades while meeting safety and reliability standards is CMP seeking to widen the existing corridors. Creating an entirely new corridor is a last resort. As a result, the vast majority of the transmission line upgrades proposed as part of the MPRP are located within or immediately adjacent to existing corridors. Co-location of the transmission line upgrades, as opposed to the creation of new corridors, has multiple benefits, including the minimization of impacts to communities, individual property owners, and the environment. Within Peru, the construction of the new 115 kV transmission line and rebuild of the existing 115 kV line will occur entirely within the existing 150-foot wide Section 229 transmission line corridor and no additional vegetation clearing will be required outside this existing corridor.

(2) The new and rebuilt transmission lines will traverse the SP Districts associated with Worthley Brook and Spears Stream. Within the corridor, CMP has, to the greatest extent practicable, sited each individual single pole structure so as to avoid, and where unavoidable to minimize, adverse impacts on surrounding uses and resources. As part of this avoidance and minimization effort, CMP has attempted to site the single pole structures so that none are located within the SP districts. In Peru, however, due to the fact that the existing corridor crosses two SP Districts, CMP was unable to avoid entirely the SP Districts. Nevertheless, CMP was able to span the SP District associated with Worthley Brook so that no poles would be located within that district, and has limited the number of poles within the SP District associated with Spears Stream to only two new single pole structures located at the outer edge of the 75-foot shoreland zone. Due to the location of the existing corridor and the nature of the transmission line as a linear project, there are no reasonable alternatives for locating these structures outside the SP districts. The amount of ground disturbance associated with the planned structures will be small, i.e., limited to the immediate vicinity of the pole placements, and since the project is co-located with the existing transmission line corridor, which contains structures of a similar bulk and style, locating these structures within the SP Districts causes the least overall impact when compared with the alternatives. Avoiding these districts would require expanding or moving the existing transmission line corridor or erecting much taller and much more substantial structures (e.g., steel towers with concrete footings) to achieve the required spans over these districts. The overall environmental and visual impacts of either of these alternatives would be greater than the impacts associated with the project as planned.

**M. Mineral Exploration and Extraction**

Not applicable.

**N. Agriculture**

Not applicable.

**O. Timber harvesting**

Not applicable.

**P. Clearing of Vegetation for Development**

Some clearing of vegetation will be required within the service corridor to accommodate the project and ensure that the project meets federal reliability and safety standards. The amount of clearing will be limited to that which is necessary for development of the project, and is generally limited to removal of species that are capable of growing tall enough to interfere with the transmission lines (so-called “capable species”), and, in some instances, the occasional removal of mature “danger trees”. Danger trees are trees that are large enough and positioned in such a manner that they could fall into the conductor, thereby posing a severe reliability risk. The removal of danger trees is a relatively infrequent activity. Non-capable species are allowed to remain to ensure that the corridor is vegetated, which prevents erosion and provides wildlife habitat. No grubbing (i.e., stump removal) will take place.

The cutting work is performed using equipment typical of logging operations including cable and hook skidders, forwarders, tree movers, chain saws, and logging trucks. In general all trees, saplings of capable species, and sometimes tall shrubs are cut at ground level. All root systems are left intact as the ground is not grubbed or graded. All slash (i.e., limbs, tree trunks, wood chips, etc.) from the cutting operation is disposed of in accordance with the Maine Slash Law (12 M.R.S.A. § 9333). The remaining vegetation is typically composed of scattered growth of small shrubs of non-capable species and herbaceous plants. After initial clearing, the condition of these cleared areas generally resembles that of a high-quality forestry operation. Specifically, although there is very limited height structure to the vegetation, great care is taken to prevent rutting and erosion.

After construction is completed, non-capable species are allowed to grow to ensure that the corridor is vegetated, which prevents erosion and provides wildlife habitat. Over a relatively short period of time (generally within one calendar year), the newly cleared portions of the corridors will exhibit the early-successional habitat type that is typical of existing transmission line corridors in Maine. See attached maps in Exhibit 1 for more detailed information on clearing locations.

**Q. Erosion and Sedimentation Control**

With the exception of the immediate area around the base of the support structures there is no increase in impervious surface area associated with the transmission line. The amount of ground disturbance associated with this project will be limited to the immediate vicinity of the pole placements and the impacts associated with access roads. CMP has developed a standard manual, “Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects” (2007), which it uses as a routine part of all transmission and substation projects. (A copy of the manual is included in Exhibit 6.) This manual contains erosion and sedimentation control requirements, standards, and methods that will be used to protect soil and water resources during construction of the various MPRP components. The manual was developed in consultation with the Maine Department of Environmental Protection (DEP) and is largely based on DEP’s *Maine Erosion and Sediment Control BMPs*, dated March 2003, and DEP’s Chapter 500, and contains specific Best

Management Practices appropriate for electric transmission line construction. These guidelines will be followed in the construction of transmission lines.

**R. Soils**

Based on the applicant’s analysis of the Soil Survey Geographic Database compiled by the United States Department of Agriculture – Natural Resources Conservation Service, soils within the transmission line corridor will accommodate the proposed MPRP construction activities. Soil constraints within the transmission line corridor will be managed and mitigated through implementation of erosion and sediment control measures, proper site and project design, and special construction procedures. If concrete foundations for specific poles should need to be constructed, soil borings will be conducted and the foundations will be designed in accordance with soil characteristics.

**S. Water Quality**

To minimize spill potential during construction, no fueling or maintenance of vehicles will be performed within 100 feet of wetlands, streams or other sensitive natural resources. After construction, the electrical transmission line corridor is maintained to encourage the growth of scrub-shrub vegetation. Trees within the corridor that are capable of growing up into the conductors (“capable species”) must be removed for safety and reliability reasons. CMP uses a selective herbicide program to treat an area once every four years to maintain an early successional stage of growth. Herbicide is selectively applied (using a low-pressure backpack applicator) to capable species to prevent growth (or re-growth of a cut plant) of individual plants. CMP does not use herbicides within 25 feet of any waterbody or wetland with standing water. Crew forepersons are certified by the Maine Pesticide Control Board, and all herbicides are EPA registered. The selective use of herbicides within the transmission line corridor does not pose a threat to groundwater quality.

**T. Archaeological Sites**

Following consultation with the Maine Historic Preservation Commission (MHPC) CMP has conducted extensive investigations of potential pre-historic archaeological, historic archaeological and historic architectural surveys along the project corridor. Survey reports have been submitted to the MHPC.

### ***Approval Standards***

The following section addresses the Approval Standards found in Section 16 D of the Peru Shoreland Zoning Ordinance.

#### **1. Maintain safe and healthful conditions.**

The proposed project will maintain the same safe and healthful conditions which are already present in the transmission line corridor. The transmission line corridor and the structures within it are maintained to established industry standards so as to ensure the safety of utility workers and the general public. Maintaining sufficient clearances around the conductors is paramount to the safe and reliable operation of the line. These clearances are achieved through appropriate siting of the structures themselves and through vegetation maintenance practices as described above. All construction will be in accordance with CMP's transmission standards, general industry standards, and "Good Utility Practice," including all necessary liveline working clearances, strength factors, and reliability factors as governed by the National Electrical Safety Code (NESC). In all instances, the line will be designed to meet or exceed the NESC and other standards, as applicable. The transmission line and all facilities will be operated in full compliance with CMP safety standards, which fully comply with Federal Occupational Safety & Health Administration requirements.

A health concern that is sometimes expressed revolves around the electric and magnetic fields produced by transmission lines. These fields are produced by any electric equipment or anything that carries electric current. The World Health Organization and numerous other scientific agencies around the world have studied the issue extensively. These studies have been unable to establish that electric and magnetic fields produced by transmission lines such as those being proposed as part of the MPRP cause any adverse health effects. There is no scientific basis to project any adverse health effects as a result of the electric and magnetic fields produced by transmission lines associated with this project. Accordingly, this standard has been met.

#### **2. Not result in water pollution erosion or sedimentation to surface waters.**

As described above with respect to Ordinance Sections 15(J) and (S), the MPRP will not result in water pollution, erosion, or sedimentation to surface waters.

#### **3. Adequately provide for the disposal of all wastewater.**

There will be no wastewater disposal required for this project, and therefore this standard has been met.

**4. Not have an adverse impact on spawning grounds, fish, aquatic life, bird, or other wildlife habitat.**

Impacts to wildlife, habitat, and unique critical areas are largely avoided through the use of the existing service corridor, which has been in place for several decades. In general, given the existing landscape characteristics of the site, construction and maintenance of the project is not expected to create conditions that are not already common to the project area. It is fully anticipated that local wildlife populations will adapt and respond to any additional alterations much as they already do to ongoing land uses within the vicinity of the proposed project. Therefore, impacts to wildlife are expected to be minimal to non-existent. Identified significant wildlife habitats and natural areas, such as vernal pools and rare plant locations, will be avoided and impacts will be minimized to the extent practicable through careful siting and placement of poles. Once installed the transmission line structures, due to the minimal amount of ground surface area they occupy, will have no significant impact on these critical natural areas. Significant wildlife habitats and natural areas will be avoided to the greatest extent practicable during construction, including measures that are taken to ensure any impacts will be minimal and temporary. Thus, this standard has been met. See attached maps, (Exhibit 1), and the sections related to specific Shoreland Zone Districts for more detailed information.

**5. Conserve shore cover and visual, as well as actual, points of access to inland waters.**

The proposed project will take place entirely within the existing corridor, and since the corridor already contains structures of a similar nature, the proposed project will not significantly affect visual points of access to inland waters, and will have no impact on actual points of access to inland waters. The corridor will continue to be maintained in a vegetated state, thereby preserving a similar degree of shore cover which currently exists.

**6. Protect archaeological and historic resources as designated in the comprehensive plan.**

As discussed above with respect to Ordinance Section (15)T, the project will protect archaeological and historic resources.

**7. Will avoid problems associated with flood plain development and use.**

As depicted in the attached maps, only six of the proposed structures are located within the 100-year flood plain. Because of the nature of a transmission line and the minimal additional impervious surface associated with the project, construction and maintenance of the proposed transmission line will not cause or increase flooding or cause a flood hazard to any neighboring structures. Furthermore, the program will not affect runoff/infiltration relationships. Thus, the project will avoid problems associated with flood plain development and use.

**8. Be in conformance with the provisions of Section 15, Land Use Standards.**

As discussed above with respect to Ordinance Sections 15(A) through (T), above, this project complies with all of the provisions of Section 15 of the Ordinance.

# **FLOODPLAIN MANAGEMENT PERMIT APPLICATION**

## FLOODPLAIN MANAGEMENT PERMIT APPLICATION

The following application describes the MPRP's compliance with the Floodplain Management Ordinance for the Town of Peru, Maine (Effective March 19, 2007). This application identifies the regulated Federal Emergency Management Agency (FEMA) delineated floodplains impacted by the MPRP and addresses the requirements of Article III and Article VI of the Peru Floodplain Management Ordinance.

### *FEMA Flood Zones*

The proposed project will cross four FEMA-mapped 100-year Flood Zones. These flood zone areas are shown on the FEMA Flood Insurance Rate Maps (FIRM) for the Town of Peru (Community Panel No. 230098, May 17, 1990). Three of these flood zones are identified as Zone A and one is identified as Zone AE. These flood zones are described as follows:

- Androscoggin River (Zone AE) – FEMA has mapped a Zone AE flood zone (Elevation 403 feet) for the Androscoggin River at the existing CMP Section 229 crossing (see FIRM 230098 0025 B). The proposed transmission lines (Section 243A and Section 229) will span this flood zone (see Map 1 in Exhibit 1). No poles or temporary access ways are located within this flood zone.
- Worthley Brook (Zone A) – The existing corridor crosses the flood zone associated with Worthley Brook (see FIRM 230098 0025 B). Currently, one H-frame structure associated with Section 229 (Pole 94) is located within this flood zone. CMP proposes to remove this H-frame structure and install two single poles (Pole 243A-162 and Pole 229-90) and an associated temporary access way within this flood zone (see Map 2 in Exhibit 1).
- Upper Story Brook (Zone A) – The existing Section 229 corridor crosses the flood zone associated with Upper Story Brook (see FIRM 230098 0025 B). CMP proposes to span this brook and flood zone with the Section 243A and Section 229 transmission lines (see Map 5 in Exhibit 1). No poles will be located within this flood zone. However, CMP proposes to install a temporary access way to cross this brook and flood zone during construction.
- Spears Stream (Zone A) – The existing corridor crosses the flood zone associated with Spears Stream (see FIRM 230098 0015 B). Currently, two H-frame structures associated with Section 229 (Pole 157 and 158) are located within this flood zone. CMP proposes to remove these two existing structures and install four new single poles within the 100-year flood zone of Spears Stream (see Maps 7 and 8 in Exhibit 1). In addition, CMP proposes to install two temporary access ways to cross this flood zone during construction.

In summary, CMP will remove three existing H-frame structures (two poles per structure for a total of six poles) from mapped flood zones in Peru and install six new single poles in the flood zones as described above. There are no reasonable alternatives to locating these structures in the mapped flood zones identified above. Since the project is co-located within the existing transmission line corridor that contains structures of a similar bulk and style, locating structures within the flood zone causes the least overall impact when compared with the alternatives.

Avoiding these flood zones would require expanding or moving the existing transmission line corridor or erecting much taller and much more substantial structures (e.g., steel towers with concrete footings) to achieve the required spans over these areas. In contrast, the amount of ground disturbance associated with the planned structures will be small (i.e., approximately 40 square feet for each pole) and limited to the immediate vicinity of the pole placements. Therefore, the overall impacts to the floodplain of either of these alternatives would be greater than the impacts associated with the project as planned.

CMP's proposed construction within the flood zones is not anticipated to have any significant impact on flood levels given the minimal potential displacement of flood water by the transmission line poles. In addition, the diameter of the new poles would not be significantly larger than the existing poles currently located in the floodway. As such, the new poles would not result in any significant changes to flood levels.

The following section discusses CMP's compliance with the review standards of the Peru Floodplain Management Ordinance.

### ***Article III – Application for Permit***

The following section includes the information requested in Article III of the Town of Peru Floodplain Management Ordinance.

#### **A. Name, Address, and Phone Number**

*Applicant:*

*Central Maine Power Company  
83 Edison Drive  
Augusta, Maine 04336  
Attention: Mary Smith (207)623-3521*

*Applicant's Agent:*

*TRC  
400 Southborough Drive  
South Portland, ME 04106  
Attention: Richard Paquette (207)879-1930 ext.126*

#### **B. Map of Construction Site**

Figure 2 provides a U.S. Geological Survey map showing the extent of the MPRP in the Town of Peru.

#### **C. Site Plan of Existing and Proposed Development**

The flood zone information from the FEMA FIRM for the Town of Peru has been incorporated into the MPRP mapping. Exhibit 1 includes aerial photo based maps (Maps 1 – 9) showing detailed project information in Peru including the location of the CMP corridor, existing and proposed pole locations, proposed access paths, flood zones, wetlands and waterbodies, and other natural resource data.

**D. Statement of Intended Use**

The proposed development in the floodplain consists of the reconstruction of the existing Section 229 115 kV transmission line and the construction of the new Section 243A 115 kV transmission line within the Town of Peru.

**E. Statement of Development Cost**

Within the Town of Peru, CMP estimates that construction of the proposed facilities will cost approximately \$35.3 million.

**F. Statement of Sewage System Type**

Not applicable. No sewage system is proposed as part of this project in the Town of Peru.

**G. Specification of Dimensions**

The diameter of the new single transmission line poles proposed within the floodplain of Spears Stream and Worthley Brook will not be significantly larger than the poles associated with the existing Section 229 H-frame structures that are currently located in the floodplain. However, the above ground height of the poles will increase from a typical above ground height of 45 feet for the existing H-frame structures to a typical above ground height of 75 feet for the new single transmission poles. Exhibit 3 provides a table showing the height ranges of the proposed transmission line poles in Peru.

**H - K. Elevation Information**

The standards at Sections H through K apply only to the new construction or substantial improvement of “structures” as defined in the Town of Peru Floodplain Management Ordinance. The single transmission line poles proposed within the 100-year floodplain are not defined as structures because they do not consist of a walled and roofed building. Instead, these poles are defined as “minor development” under the Peru Ordinance. As such, the elevation requirements in Sections H through K do not apply to the proposed work in the Spears Stream and Worthley Brook floodplains in Peru.

**L. Water Course Alteration**

The proposed project includes the removal of existing 115 kV transmission line poles and the installation of new 115 kV poles and, as such, will not alter or relocate the course of Spears Stream or Worthley Brook. No poles will be placed within Spears Stream or Worthley Brook.

**M. Compliance with Article VI**

The project’s compliance with the Article VI Development Standards are presented in the following section.

***Article VI - Development Standards*****A. All Development**

The transmission line poles proposed within the floodplain will be adequately anchored to prevent flotation, collapse, or lateral movement during a flood. In general, the poles are buried to a depth measuring ten percent of the total pole length plus two feet. For example, a 90-foot pole would be buried eleven feet below the ground surface. All construction will be

conducted in accordance with CMP's transmission standards, general industry standards, and "Good Utility Practice," including all necessary liveline working clearances, strength factors, and reliability factors as governed by the NESC. In all instances, the line will be designed to meet or exceed the NESC and other standards, as applicable. The transmission line and all facilities will be operated in full compliance with CMP safety standards, which fully comply with Federal OSHA requirements.

**B. Water Supply**

Not applicable.

**C. Sanitary Sewage Systems**

Not applicable.

**D. On-site Waste Disposal Systems**

Not applicable.

**E. Watercourse Carrying Capacity**

Not applicable.

**F. Residential**

Not applicable.

**G. Non-residential**

Not applicable.

**H. Manufactured Homes**

Not applicable.

**I. Recreational Vehicles**

Not applicable.

**J. Accessory Structures**

The proposed facilities in Peru are not considered structures under the Peru Floodplain Management Ordinance. Therefore, this standard does not apply.

**K. Floodways**

CMP does not propose any development for the MPRP within the regulatory floodways identified by FEMA in the Town of Peru.

**L. Enclosed Areas Below the Lowest Floor**

Not applicable.

**M. Bridges**

Not applicable.

**N. Containment Walls**

Not applicable.

**O. Wharves, Piers and Docks**

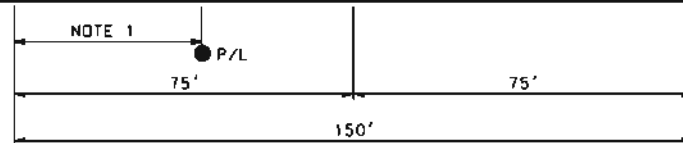
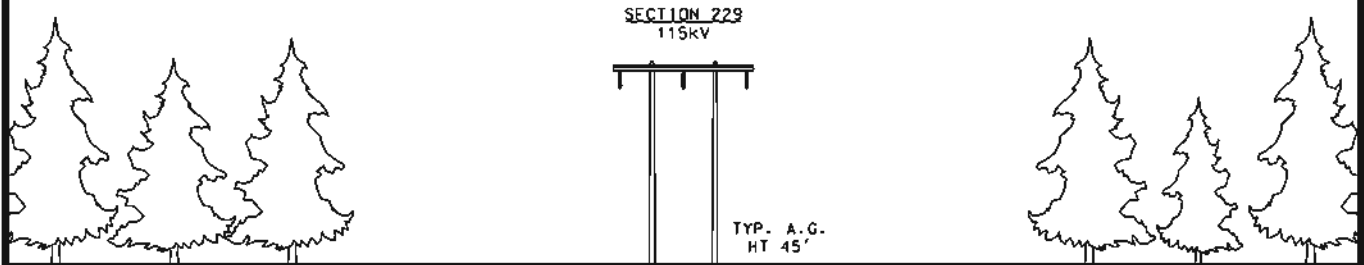
Not applicable.

**EXHIBIT 1**  
**Project Scope and Natural Resource Maps**

**EXHIBIT 2**  
**Transmission Line Configuration Cross Sections**

NOTE 1: GAS PIPELINE LOCATION  
VARIES ALONG R.O.W.

**EXISTING**

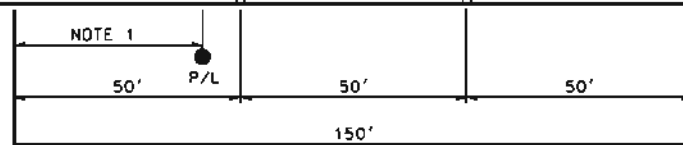
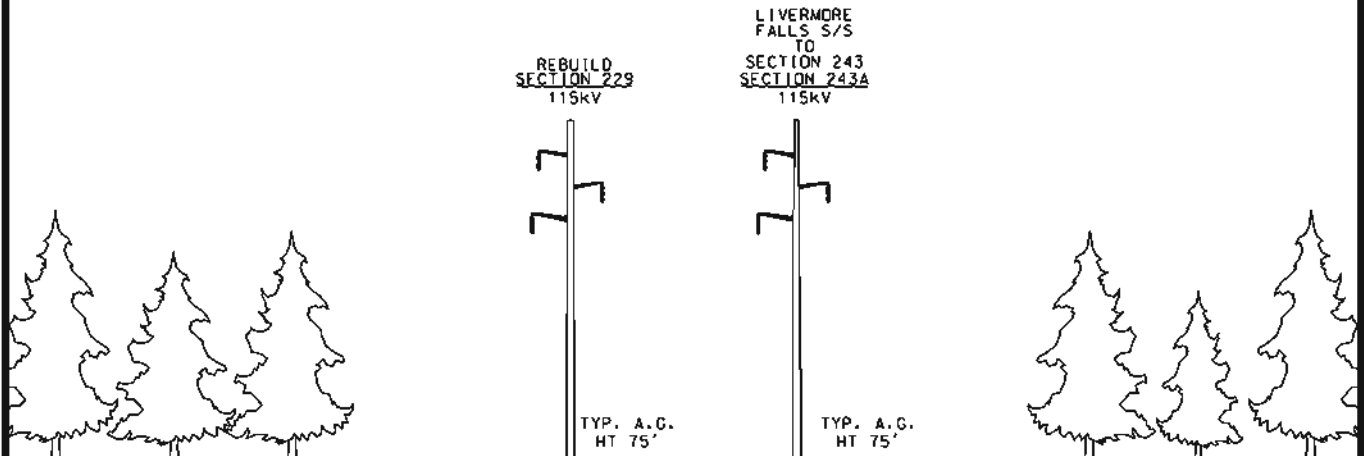


LIMIT  
R.O.W.

LIMIT  
R.O.W.

**LOOKING FROM RILEY S/S TOWARDS RUMFORD IP S/S**  
(APPROX. 12.3 MILES)

**PROPOSED**



LIMIT  
R.O.W.

LIMIT  
R.O.W.

**LOOKING FROM RILEY S/S TOWARDS RUMFORD IP S/S**  
(APPROX. 12.3 MILES)

THIS DRAWING SHALL  
BE REVISED ON THE  
CADD SYSTEM ONLY

**-DRAFT-  
FOR REVIEW ONLY**

SECTION 229 TP 29 TO POLE 182 STA. 0+00=348+41.38 TO 997+65

ENG. CONTRACTOR			
		///	
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		///	
		///	
B	UPDATED WITH S243A	2/5/09	PEI
A	ISSUED FOR REVIEW	1/28/08	PEI
NO.	REVISION	DATE	BY

**MAINE POWER RELIABILITY PROGRAM**

EXISTING AND PROPOSED R.O.W.  
ALTERNATIVE N5 FOR N-1-1 ANALYSIS

CHECKED SGW 1/30/09 DESIGNED KJF DATE 10/12/07  
DRAWN SAT APPR.

SEGMENT 39

CENTRAL MAINE POWER CO.  
TRANSMISSION ENGINEERING

SHEET N5-39-4

**EXHIBIT 3**  
**Structure Height Ranges**

**Maine Power Reliability Program  
Town of Peru  
Structure Height Ranges  
New Section 243A and Section 229 Rebuild**

<b>Town</b>	<b>New Pole Height (FT)</b>	<b>Number Of Poles</b>
<b>Peru</b>		
	51 - 60	2
	61 - 70	71
	71 - 80	69
	81 - 90	43
	91 - 100	9
	101-110	7
	<b>Total</b>	<b>201</b>

**EXHIBIT 4**  
**List of Abutters**

**EXHIBIT 5**  
**Proof of Right, Title, or Interest**

**EXHIBIT 6**  
**Environmental Guidelines for Construction and Maintenance**  
**Activities on Transmission line and Substation Projects**