CITY OF PORTLAND, MAINE RESURGAM
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 11/27/17

Analysis Parameters

Location:	CUMBERLAND County, ME	Height (ft):	275
Code:	ANSI/TIA-222-G	Base Elevation (ft):	0.00
Shape:	Triangle	Bottom Face Width (ft):	3.50
Tower Manufacturer:	Pirod	Top Face Width (ft):	3.50
Tower Type:	Guyed		

Ice & Wind Parameters

Structure Class:	II	Design Windspeed Without Ice:	98 mph
Exposure Category:	B	Design Windspeed With Ice:	40 mph
Topographic Category:	1	Operational Windspeed:	60 mph
Crest Height:	0.0 ft	Design Ice Thickness:	1.00 in

Seismic Parameters

Analysis Method: Equivalent Modal Analysis & Equivalent Lateral Force Methods

Site Class: D - Stiff Soil

Period Based on Rayleigh Method (sec): 0.87

T_L(sec):	6	p:	1.3	C_S:	0.058
S_S :	0.245	S_1 :	0.079	C_S, Max:	0.058
F_a :	1.600	F_V :	2.400	C_S, Min:	0.030
S_{ds} :	0.261	S_{d1} :	0.126		

Load Cases

1.2D + 1.6W Normal	98 mph Normal to Face with No Ice
1.2D + 1.6W 60 deg	98 mph 60 degree with No Ice
1.2D + 1.6W 90 deg	98 mph 90 degree with No Ice
1.2D + 1.6W 120 deg	98 mph 120 degree with No Ice
1.2D + 1.6W 180 deg	98 mph 180 degree with No Ice
1.2D + 1.6W 210 deg	98 mph 210 degree with No Ice
1.2D + 1.6W 240 deg	98 mph 240 degree with No Ice
1.2D + 1.6W 300 deg	98 mph 300 degree with No Ice
1.2D + 1.6W 330 deg	98 mph 330 degree with No Ice
1.2D + 1.0Di + 1.0Wi Normal	40 mph Normal with 1 in Radial Ice
1.2D + 1.0Di + 1.0Wi 60 deg	40 mph 60 deg with 1 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	40 mph 90 deg with 1 in Radial Ice
1.2D + 1.0Di + 1.0Wi 120 deg	40 mph 120 deg with 1 in Radial Ice
1.2D + 1.0Di + 1.0Wi 180 deg	40 mph 180 deg with 1 in Radial Ice
1.2D + 1.0Di + 1.0Wi 210 deg	40 mph 210 deg with 1 in Radial Ice
1.2D + 1.0Di + 1.0Wi 240 deg	40 mph 240 deg with 1 in Radial Ice
1.2D + 1.0Di + 1.0Wi 300 deg	40 mph 300 deg with 1 in Radial Ice
1.2D + 1.0Di + 1.0Wi 330 deg	40 mph 330 deg with 1 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Seismic Normal
(1.2 + 0.2Sds) * DL + E 60 deg	Seismic 60 deg
(1.2 + 0.2Sds) * DL + E 90 deg	Seismic 90 deg