

Project No. 10002

Revision 0
Specification No. 01090

SPECIFICATION
FOR
PROJECT SITE CONDITIONS
FOR
ecomaine - Portland, Maine

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REVISION INDEX

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PART 1 GENERAL

1.1 Summary

This specification defines the specific conditions and requirements for the **ecomaine** Power Station in Portland, Maine. The purpose of this specification is to provide site-specific information to be used in conjunction with all system and equipment specifications. The Seller shall fully review and understand all of the contents and requirements stipulated in the specification. The Seller shall perform all design, manufacturing and erection of systems and equipment in accordance with the site specific data provided herein. The Seller shall also render all necessary considerations and provisions to make the equipment completely suitable for the conditions and services specified and to ensure satisfactory and reliable operation of the equipment.

PART 2 – PROJECT CONDITIONS

2.1 Job Site Location

The job site is located in Portland, Maine, Cumberland County, Maine. The geographical location is:

Latitude 43° 39' North

Longitude 70° 18' West

2.2 Basic Site Conditions

2.2.1 Plant Elevation is 45 feet Above Sea Level.

2.2.2 The site is an existing trash to energy electrical generating station with a 11 MW steam turbine generator.

2.2.3 Noise Limit:
 - 85 dBA at 3 feet (near field)

2.3 Site Environmental Conditions

Meteorological Data	
Air Temperature (max)	95° F
Air Temperature (min)	-10° F
Air Temperature (Summer avg.)	80° F
Air Temperature (Winter avg.)	15° F
Summer Design	90 ° F
	76% RH
Winter Design	-5° F
	65% RH
Air Pressure @ 32° F.	28.9 in Mercury
Altitude	45 ft MSL.
Wind	(per 2006 IBC/ ASCE 7-05)

Summer (average)		7.5 mph
Prevailing Direction		Southwest
Winter (average)		8.8 mph
Prevailing Direction		Southwest
100 Year Flood Plain		45 ft MSL
Rainfall	Annual Average	36 in
	100 year storm	2.7" per hour
Snow	(IBC 2006/ASCE 7-05)	
	Ground Snow	Pg = 60 psf
	Importance	I = 1.0
	Exposure	Ce = 0.9
Earthquake	(IBC 2006/ASCE 7-05)	
	Short Period Acceleration	Ss = 0.319
	1 Second Acceleration	S ₁ = 0.078
	Site Class	D (Assumed)
	Importance	I = 1.0
	Seismic Design Category	B
Wind	(IBC 2006/ASCE 7-05)	
	Basic Wind Speed	V = 90 mph
	Importance	I = 1.15
	Exposure	C

2.4 Available Utilities

2.4.1 Service air pressure will be provided at 80-100 psig nominal.

2.4.2 Instrument air pressure will be provided at 80 –100 psig nominal.

2.4.3 Electrical Power is available as follows:

- 120 VAC, Single Phase, 60 Hz.
- 480 VAC, 3 Phase, 60 Hz.

2.4.4 Water – Later if Required

PART 3 EXECUTION

This Section Not Used.