Existing Plant 45 dB
New Plant 43 dB
Difference -2 dB

Existing Plant 48 dB
New Plant 49 dB
Difference +1 dB

Existing Plant 39 dB
New Plant 42 dB
Difference +3 dB

Existing Plant 47 dB
New Plant 38 dB
Difference -9 dB

Existing Plant 39 dB
New Plant 42 dB
Difference +3 dB

Existing Plant 45 dB
New Plant 42 dB
Difference -3 dB

DIFFERENCE IN SOUND LEVELS IMPERCEPTIBLE FROM HISTORIC LEVELS
PROPOSED VS EXISTING FACILITY COMPARISONS

06.20.2013 FOOTPRINT POWER LLC
SIDE BY SIDE COMPARISON

PLAN VIEW

Existing Facility occupies approx.

700,000 gsf
on 65 Acres

Proposed Facility occupies approx.

200,000 gsf
on 20 Acres
OVERLAY COMPARISON

PLAN VIEW

Existing Facility occupies approx.

700,000 gsf
on 65 Acres

Proposed Facility occupies approx.

200,000 gsf
on 20 Acres
EXISTING FACILITY

+/- 500’ Ht. of existing stack
230’ Ht. of proposed stack
125’ Ht. of proposed HRSG

PROPOSED FACILITY

Side by Side Comparison
East Elevation (from Harbor)

+/- 500’ Ht. of existing stack
230’ Ht. of proposed stack
125’ Ht. of proposed HRSG

Extent of existing facility
Extent of new facility
OVERLAY COMPARISON

EAST ELEVATION (FROM HARBOR)

+/- 500’ Ht. of existing stack

230’ Ht. of proposed stack

125’ Ht. of proposed HRSG

Extent of existing facility

Extent of proposed facility
EXISTING FACILITY

+/- 500’ Ht. of existing stack

230’ Ht. of proposed stack

125’ Ht. of proposed HRSG

PROPOSED FACILITY

+/- 500’ Ht. of existing stack

230’ Ht. of proposed stack

125’ Ht. of proposed HRSG
OVERLAY COMPARISON

SOUTH ELEVATION (FROM SALEM)

+/- 500' Ht. of existing stack

230' Ht. of proposed stack

125' Ht. of proposed HRSG

Extent of existing facility

Extent of proposed facility
+/- 500' Ht. of existing stack

230' Ht. of proposed stack
125' Ht. of proposed HRSG

EXISTING FACILITY

+/- 500' Ht. of existing stack

230' Ht. of proposed stack
125' Ht. of proposed HRSG

PROPOSED FACILITY

SIDE BY SIDE COMPARISON
WEST ELEVATION
(FROM DERBY ST)
OVERLAY COMPARISON

WEST ELEVATION (FROM DERBY ST)

+/- 500’ Ht. of existing stack

230’ Ht. of proposed stack

125’ Ht. of proposed HRSG

Extent of existing facility

Extent of proposed facility
EXISTING FACILITY

+/- 500' Ht. of existing stack

230' Ht. of proposed stack

125' Ht. of proposed HRSG

PROPOSED FACILITY

+/- 500' Ht. of existing stack

230' Ht. of proposed stack

125' Ht. of proposed HRSG

SIDE BY SIDE COMPARISON

NORTH ELEVATION
(FROM FORT AVE)
OVERLAY COMPARISON

NORTH ELEVATION (FROM FORT AVE)

+/- 500’ Ht. of existing stack

230’ Ht. of proposed stack

125’ Ht. of proposed HRSG

Extent of existing facility

Extent of proposed facility
NEW VISUAL IMPACT STUDY

LOCATIONS

5) Derby Wharf
6) Salem Common
7) Salem Willows
8) Fort Ave
5) View from Derby Wharf

Proposed

May 4th 2012
6) View from Salem Common

May 5th 2013

+/- 500 FEET

230 FEET
7) View from Salem Willows

Nov 7th 2012

Proposed
8) View from Fort Avenue

Proposed

+/- 500 FEET

230 FEET

May 13th 2013
VISUAL IMPACT STUDY LOCATIONS: OVERLAYS

1) Bentley Elementary
2) Winter Island
3) Marblehead
4) Cat Cove
5) Derby Wharf
6) Salem Common
7) Salem Willows
8) Fort Ave
1) View from Bentley Elementary

May 4th 2012

+/- 500 FEET

230 FEET
230 FEET

+/- 500 FEET

3) View from Marblehead

May 4th 2012
230 FEET

+/- 500 FEET

4) View from Cat Cove

Nov 7th 2012
5) View from Derby Wharf

May 4th 2012
6) View from Salem Common

May 5th 2013

+- 500 FEET

230 FEET
7) View from Salem Willow

Nov 7th 2012
8) View from Fort Avenue
SHADOW STUDY
June 21 is summer solstice, when the sun is at its highest angle and casts the smallest shadows.
June 21 is summer solstice, when the sun is at its highest angle and casts the smallest shadows.
SHADOW STUDY
ON JUNE 21
12:00PM ET
SHADOW STUDY ON JUNE 21 12:00PM ET
SHADOW STUDY ON JUNE 21 5:00PM ET
SHADOW STUDY ON JUNE 21 5:00PM ET
December 21 is winter solstice, when the sun is at its lowest angle and casts the longest shadows.
December 21 is winter solstice, when the sun is at its lowest angle and casts the longest shadows.
SHADOW STUDY ON DECEMBER 21 12:00PM ET
SHADOW STUDY
ON DECEMBER 21
3:00PM ET
SHADOW STUDY ON DECEMBER 21 3:00PM ET
FAA (FEDERAL AVIATION ADMINISTRATION) OBSTRUCTION LIGHTS

CEMS PLATFORM (CONTINUOUS EMISSIONS MONITORING SYSTEM)

EXHAUST FLUE

DESIGN CONSTRAINTS

FAA REGULATIONS
AERODYNAMIC - EMISSIONS - NOISE
STRUCTURAL
CONSTRUCTABILITY
EQUIPMENT
Lighthouses, such as the ones on Winter Island and Bakers Island, are painted different colors on the top and base for daymarking.

They also include walkways or platforms at the top to allow for both maintenance and ship to shore communication.
Fort Pickering Lighthouse (Winter Island)
Salem, MA
The Captain’s Walk or Widow’s Walk is a rooftop platform that was designed to observe vessels at sea.
Crows Nests on sailing ships, named after the early use of crows as a navigational aid, is another form of ship to shore observation.
View from Salem Harbor Station
Salem, MA
PREVIOUS STACK

- Flues
- Metal Edging
- FAA Lights
- Concrete Stack
- CEMS Platform (Inside Stack)
REVISED STACK

- CONCRETE STACK
- CEMS PLATFORM
- OBSERVATION BALCONY AND SAFETY RAILS
- TEXTURED CONCRETE
- FLUES
- METAL EDGING
- FAA LIGHTS
AXIS BETWEEN FLUES

SALEM OLD TOWN HALL

SALEM ALIGNMENT

MISERY AND BAKER'S ISLANDS
ALONG PATH NEAR WEBB STREET
ALONG PATH NEAR WEBB STREET
SALEM HARBOR STATION ENTRANCE
VIEW TOWARDS SALEM
PERMANENT LANDSCAPE
NO EXISTING TREES TO BE REMOVED WITHIN NGRID EASEMENT
ALONG PATH NEAR WEBB STREET
1. CTG HALL
2. LOUVERS
3. POWER DISTRIBUTION CENTER
4. GRAVEL
5. PAVEMENT
FACILITY MATERIALS BOARD

1. LANDSCAPED BERM
2. CTG HALL
3. STACK
4. STG HALL
5. COMMUNITY OUTREACH BUILDING
LANDSCAPE MATERIALS BOARD

1. PATHWAY
2. INTERIOR LANDSCAPE
3. MARINE SHRUBLAND
4. COASTAL WOODLAND
5. COASTAL WOODLAND & UPLAND MEADOW
ALONG PATH NEAR WEBB STREET