

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI NOTICE OF COMMUNICATION**

COMES NOW Kansas City Power & Light Company (“KCP&L”) and KCP&L Greater Missouri Operations Company (“GMO”)(collectively, the “Company”) and for its Notice of Meeting states as follows:

The Company files this Notice of Meeting in all of its contested cases pending before the Missouri Public Service Commission (“Commission”). The Office of the Public Counsel was invited pursuant to 4 CSR 240-4.017(3) and attended.

**Event:** Iatan Meeting and Tour with MoPSC and OPC  
**Date/Time:** Friday, July 26, 2019 @ 11:30 a.m.  
**Location:** Iatan Generating Station 20250 State Route 45 N, Weston, MO 64098

**Attendees included the following:**

|  |                  |   |
|--|------------------|---|
| <u>Missouri Public Service Commission:</u> | Ryan Silvey      | Chairman                                |
|  | Jeremy Juiliette | Staff Auditor                           |
|  | Jared Giacone    | Staff Auditor                           |
|  | Karen Bretz      | Staff Counsel                           |
|  | Morris Woodruff  | Chief Regulatory Law Judge              |
|  | Nancy Dippell    | Regulatory Law Judge                    |
|  | Jennie Wells     | External Litigation                     |
|  | Doug Fear        | Staff Services                          |
|  | Helen Davis      | Budget and Fiscal Services              |
|  | Michael Fortson  | Budget and Fiscal Services              |
|  | Amanda Coffey    | Engineering Analysis                    |
|  | Valerie Groose   | External Litigation                     |
|  | Annabelle Attias | Staff Counsel                           |
|  | Michael Rush     | Critical Infrastructure Safety Engineer |
| <br><u>Office of Public Counsel:</u>       | <br>Marc Poston  | <br>Public Counsel                      |
|  | John Robinett    | Utility Engineering Specialist          |
| <br><u>Company Personnel:</u>              | <br>Kevin Bryant | <br>Chief Operating Officer             |
|  | John Bridson     | VP Generation                           |
|  | Mark Howell      | Iatan Plant Manager                     |
|  | Don Hughes       | Iatan Unit Director                     |
|  | Roger Steiner    | Corporate Counsel                       |
|  | Matt Dority      | Director Regulatory Affairs             |

A copy of PowerPoint presentation presented to the attendees is attached.

Respectfully submitted,

*/s/ Robert J. Hack*

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**ATTORNEYS FOR KANSAS CITY POWER &  
LIGHT COMPANY AND KCP&L GREATER  
MISSOURI OPERATIONS COMPANY**

**CERTIFICATE OF SERVICE**

The undersigned certified that a true and correct copy of the foregoing document was sent by electronic transmission, facsimile, U.S. Mail or e-mail to all parties of record in all of its contested cases pending before the Missouri Public Service Commission on this 29<sup>th</sup> day of July 2019.

*/s/ Robert J. Hack*

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Robert J. Hack



# Iatan Generating Station

*Mark Howell*  
*Plant Manager*





# Welcome to Iatan Generating Station





# Safety

## PLEASE :

- Wear PPE: glasses, hat, safety shoes, long sleeves, hearing protection
- Do not separate from group
- Do not touch
- Stay clear of areas with red flashing lights, safety tape and warning signs
- Equipment can start without warning
- Evacuation procedures
- Ammonia is on site



# Iatan Generating Station



## Station Overhead Mapping

Revised - 2015 December



|                |                |                    |                  |                     |                   |                     |         |     |
|----------------|----------------|--------------------|------------------|---------------------|-------------------|---------------------|---------|-----|
|                |                |                    |                  |                     |                   |                     |         |     |
| Assembly Areas | Storm Shelters | Contractor Parking | Employee Parking | Radioactive Devices | Anhydrous Ammonia | Wind Socks or Flags | Showers | AED |





# Iatan Facts

## Common Facts

- Iatan – Nickname of OTOE tribe Chief who lived from 1780 – 1837
- Approximately 3000 acres for site
- Iatan provides 33% of GPE's coal fired net generation and can supply enough electricity to serve approximately 1,000,000 homes
- Iatan has a coal inventory of 1.1 M Tons. We consume 20,000T of coal a day with both units at full load.
- 135 car DP trains deliver 16,000 Tons of coal per cycle. It takes 5 – 6 hours to unload a train.



# Iatan Facts

## Common

- Iatan is one of the cleanest coal stations in the country
- FGD system removes > 95% of the SO<sub>2</sub> in the flue gas
- SCR removes 50% / 66 % of the NO<sub>x</sub>
- Hg is removed with PAC and FGD to >90%, <210 lb/year
- Particulate is controlled with Fabric Filters, >99% removal
- Iatan AQCS and Unit 2 were designed as a Zero Liquid Discharge facilities





# Iatan Facts

## Unit 1

- Commercial operation in 1980. 705 MW net generation
- Unit 1 burns 8,500 tons of coal per day
- Babcock & Wilcox subcritical boiler, General Electric Turbine/Generator
- Main Steam Conditions – 4,900,000 pph @ 2,400 psi, 1005 deg. F.
- Condenser cooling from the Missouri River – 300,000 gpm



# Iatan Facts

## Unit 2

- Commercial operation in 2010. 850 MW net generation
- Unit 2 burns 11,000 tons of coal per day
- Alstom Supercritical Boiler, Toshiba Turbine/Generator
- Boiler Efficiency is 37.9% compared to the average of 30.8% reducing CO2 emissions by 1.3 million tons/year
- Main Steam Conditions – 6,200,000 pph @ 3,600 psi, 1080 deg. F.
- Condenser cooling from well water circulated through a cooling tower



# Iatan Station - Overview

| Unit    | Year Completed | Location  | Energy Source | Total MW | KCP&L MW     | GMO MW     | GPE MW       | Operator                  | Other Owners   |
|---------|----------------|-----------|---------------|----------|--------------|------------|--------------|---------------------------|--|
| Iatan 1 | 1980           | Iatan, MO | Coal          | 705      | 494<br>70%   | 127<br>18% | 620<br>88%   | Kansas City Power & Light | Empire District Electric - EDE (85 MW)   |
| Iatan 2 | 2010           | Iatan, MO | Coal          | 850      | 465<br>54.7% | 153<br>18% | 618<br>72.7% | Kansas City Power & Light | EDE (102 MW),<br>KEPCO (30 MW) and<br>Missouri Joint Municipal<br>Electric Utility Commission -<br>MJMEUC (100 MW) |

## Iatan 1

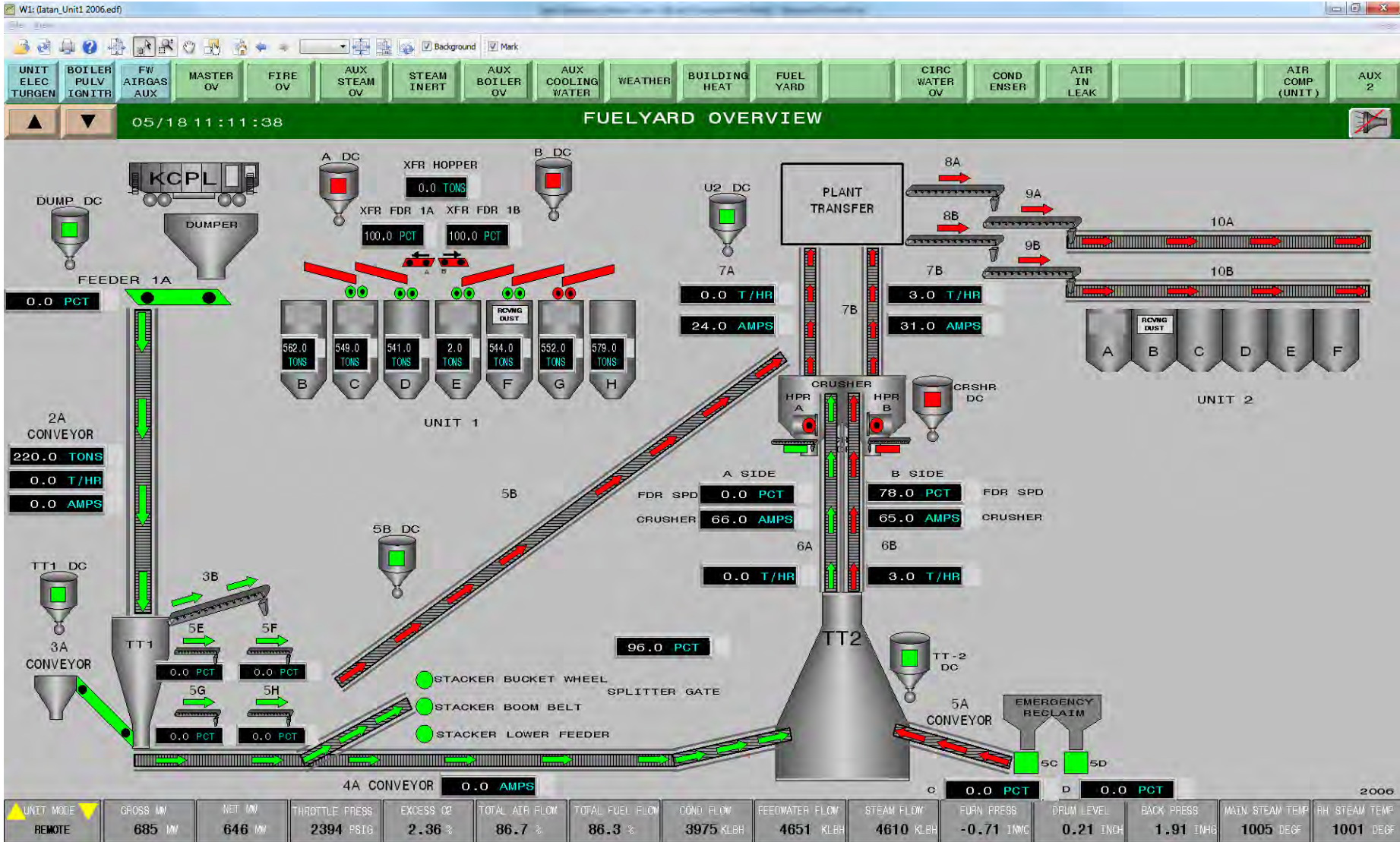
Retrofit installation of a new air quality control system (AQCS) on existing unit  
Sub-critical PC generating unit optimizing use of existing plant infrastructure

## Iatan 2

New 850 MW super critical pulverized coal (PC) generating unit  
Permit, design, construction, startup, testing and operational in-service



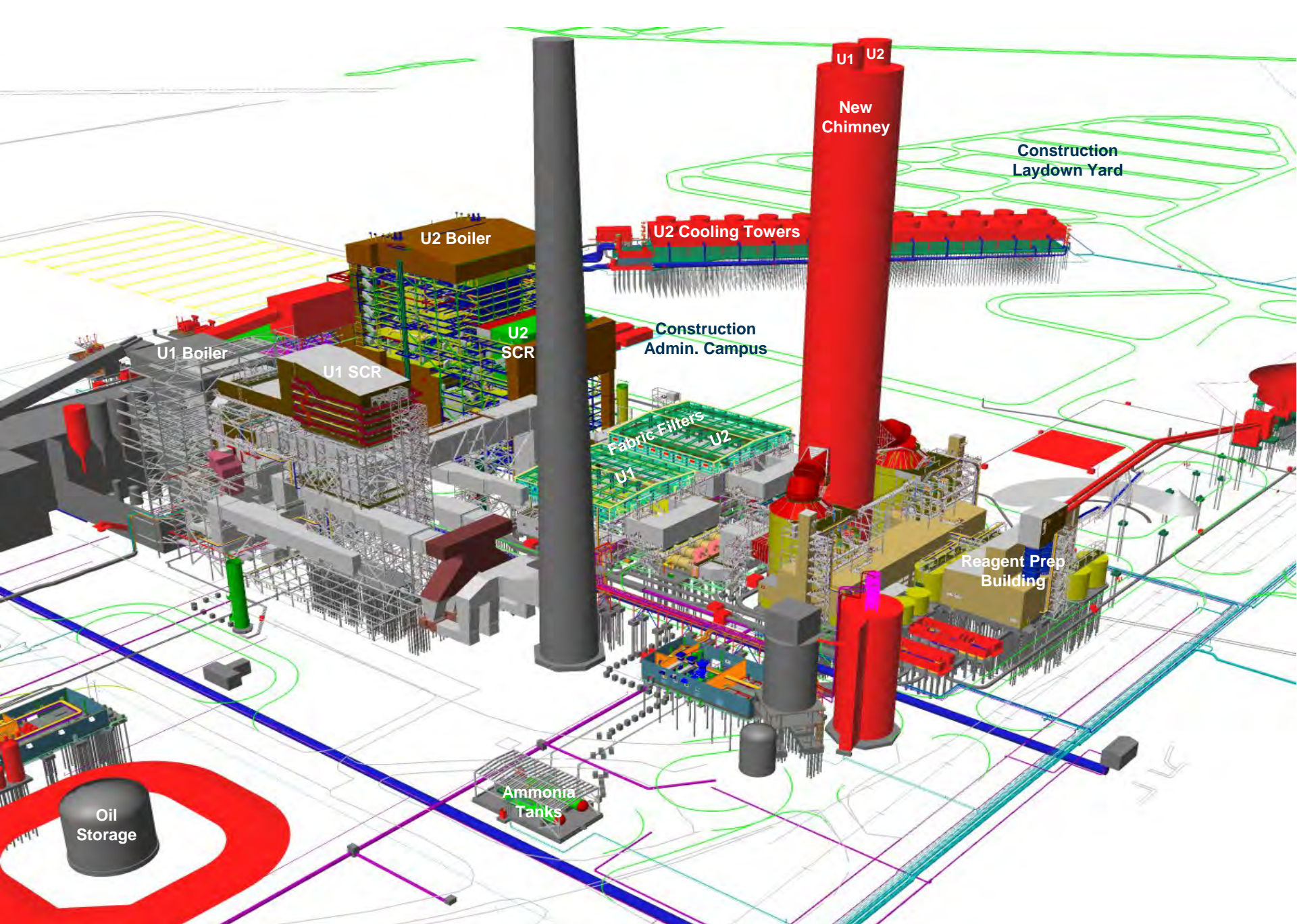
# Fuel Yard Overview





# Dumper





U1 U2  
New Chimney

Construction Laydown Yard

U2 Boiler

U2 Cooling Towers

Construction Admin. Campus

U1 Boiler

U2 SCR

U1 SCR

Fabric Filters  
U1 U2

Reagent Prep Building

Oil Storage

Ammonia Tanks



# Animations

- Iatan

Unit 2

<http://wwwi.kcpl.com/genweb/operations-programs/training/animations/flash/iatan/i2-steam-and-water-cycle.swf?636220717503673837>

Unit 1

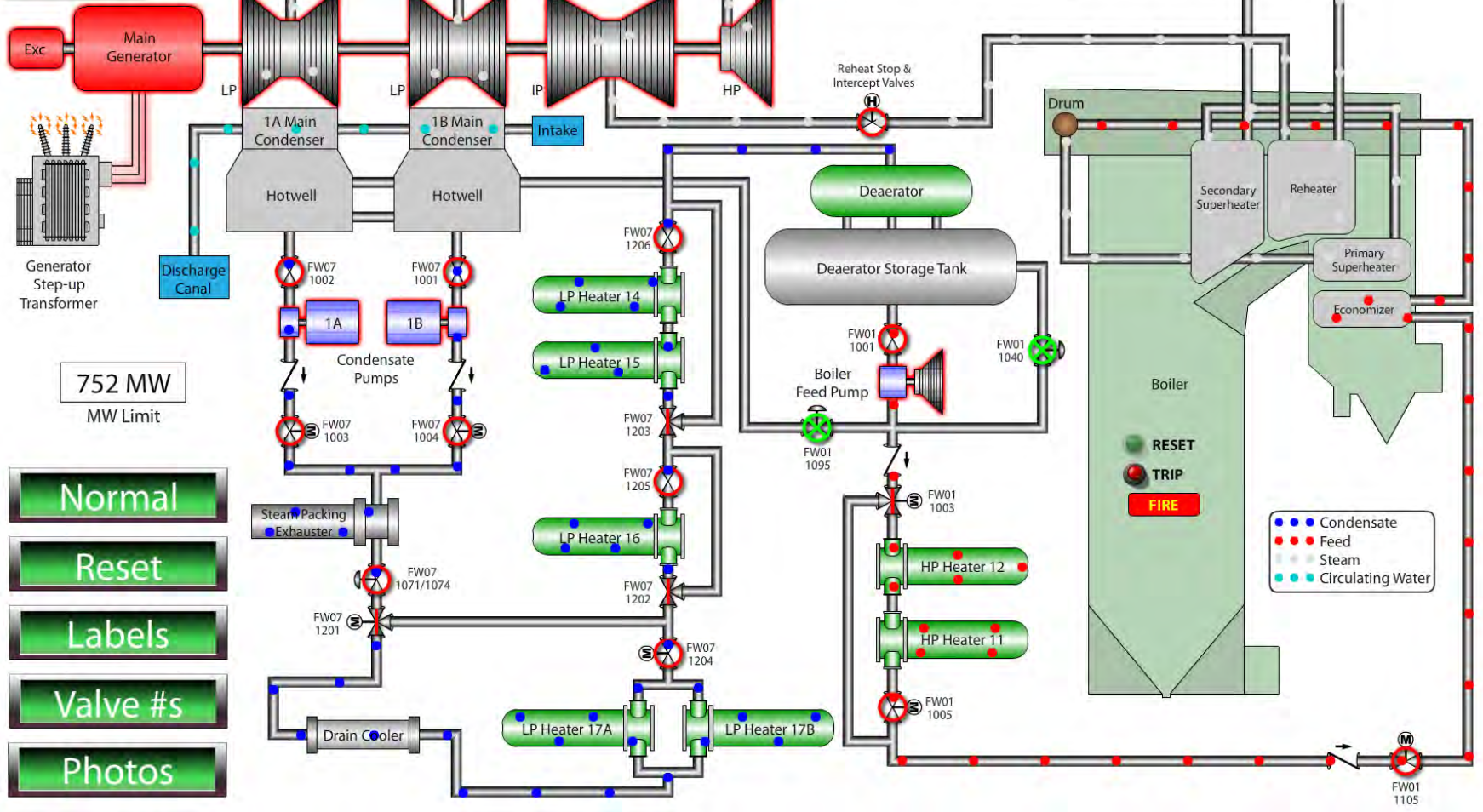
<http://wwwi.kcpl.com/genweb/operations-programs/training/animations/flash/iatan/i1-steam-and-water-cycle.swf?636220799680094173>

- Boiler cycle

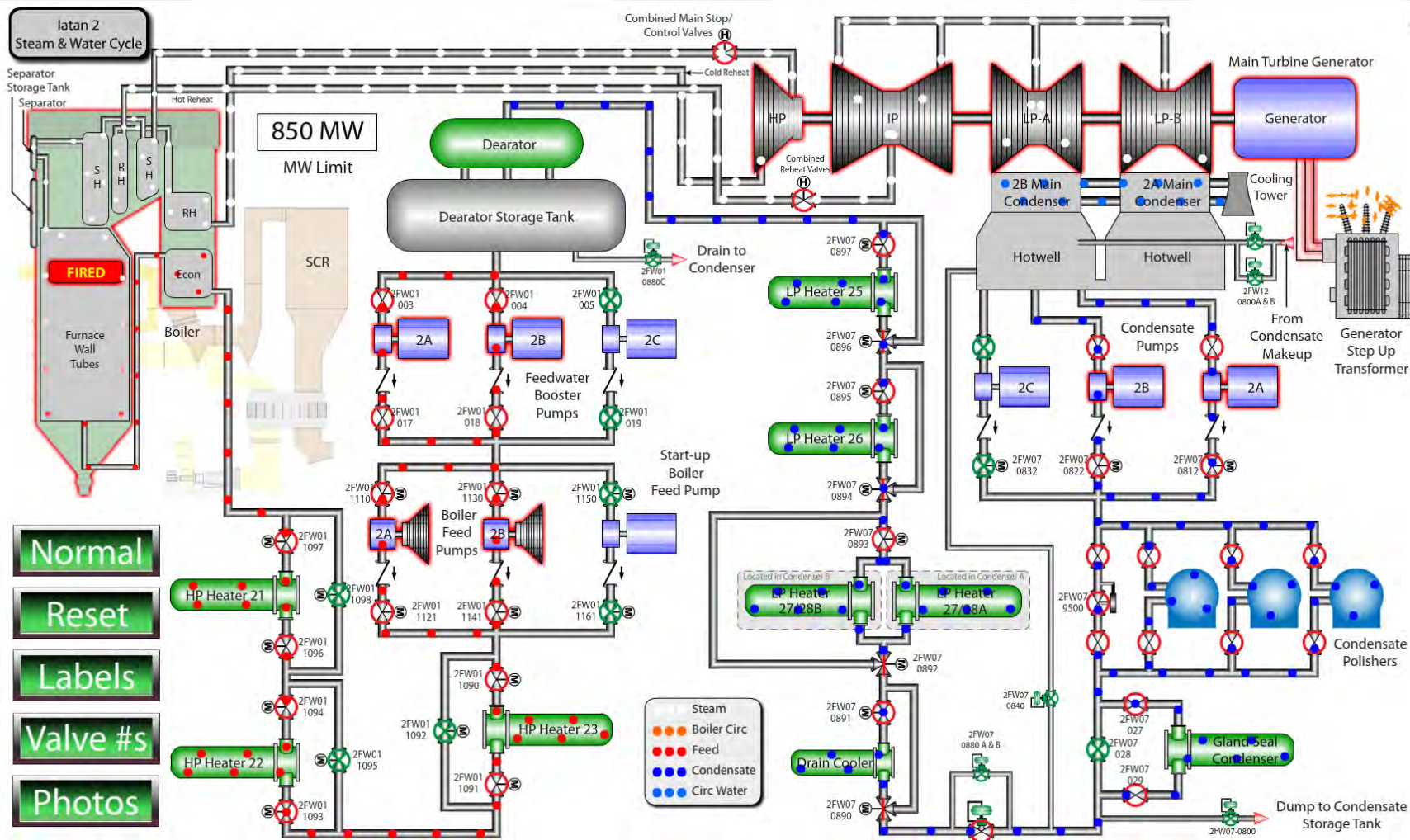
<https://vimeo.com/50557100>



# Iatan 1 Steam and Water Cycle







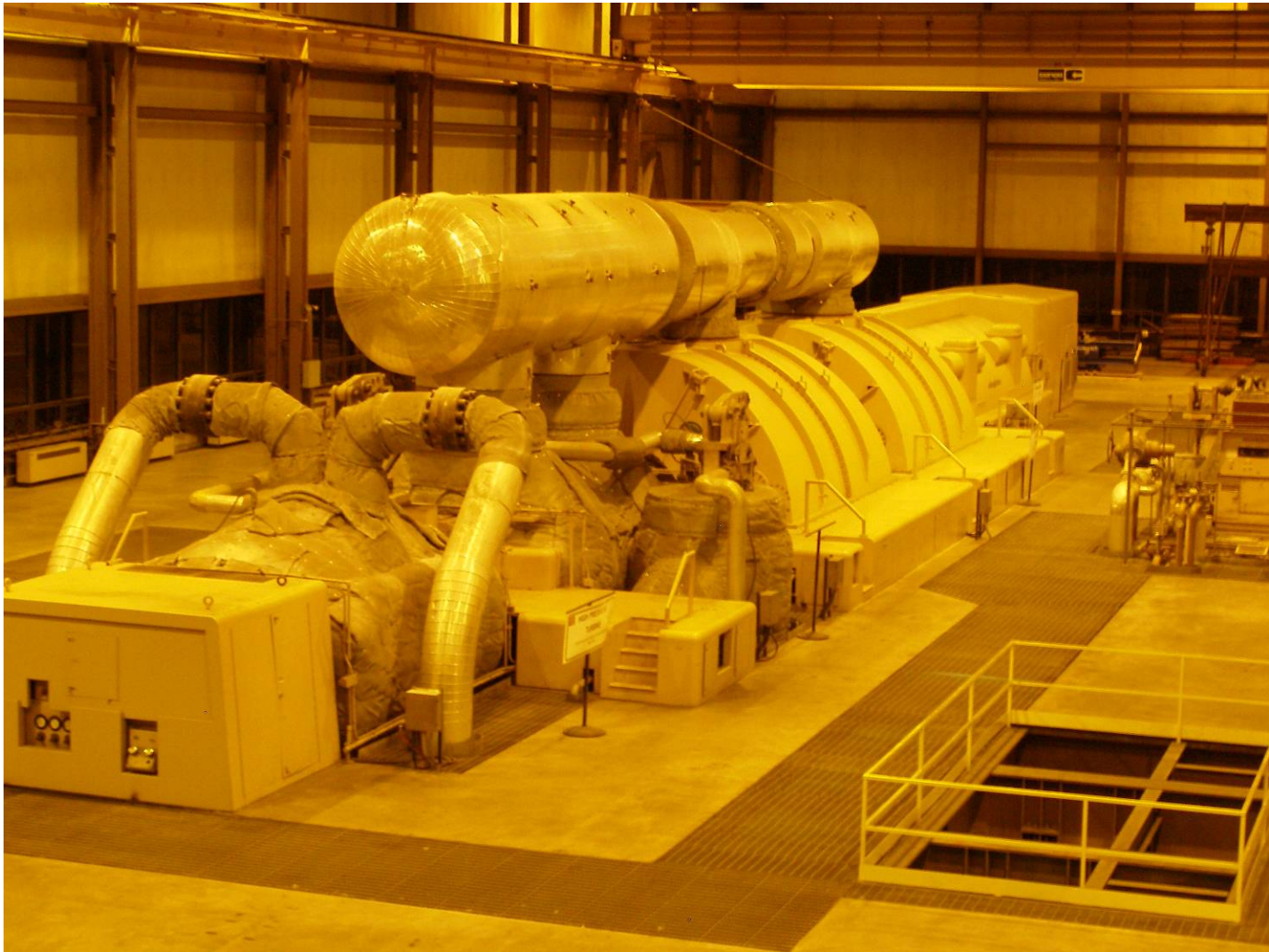


# Pulverizers



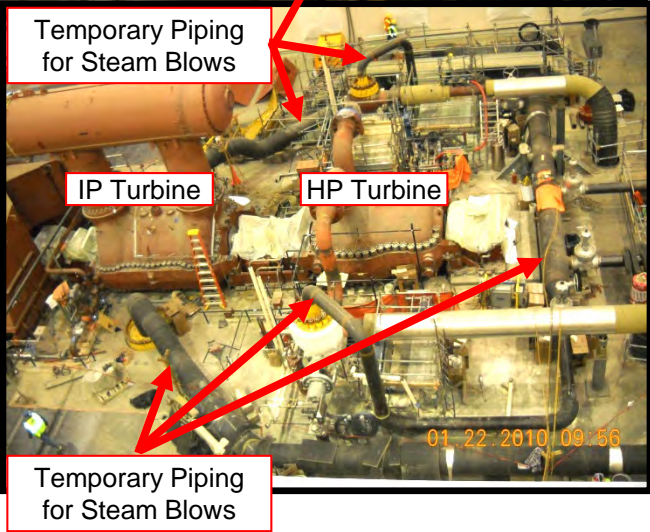
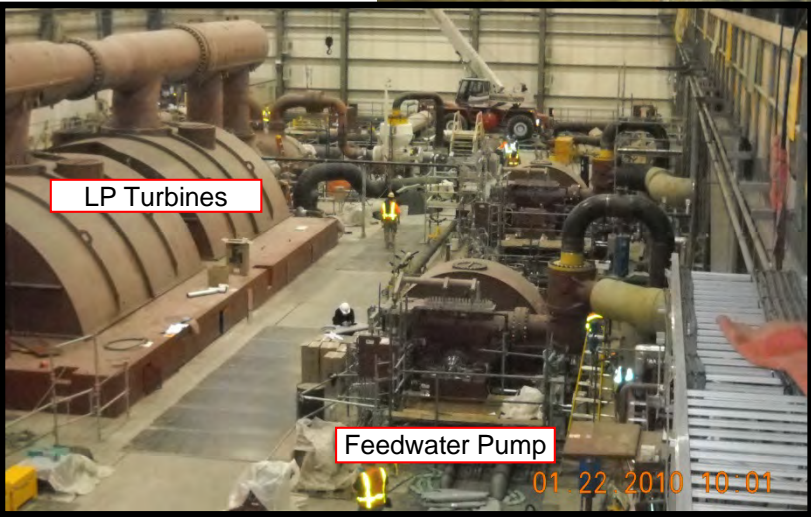
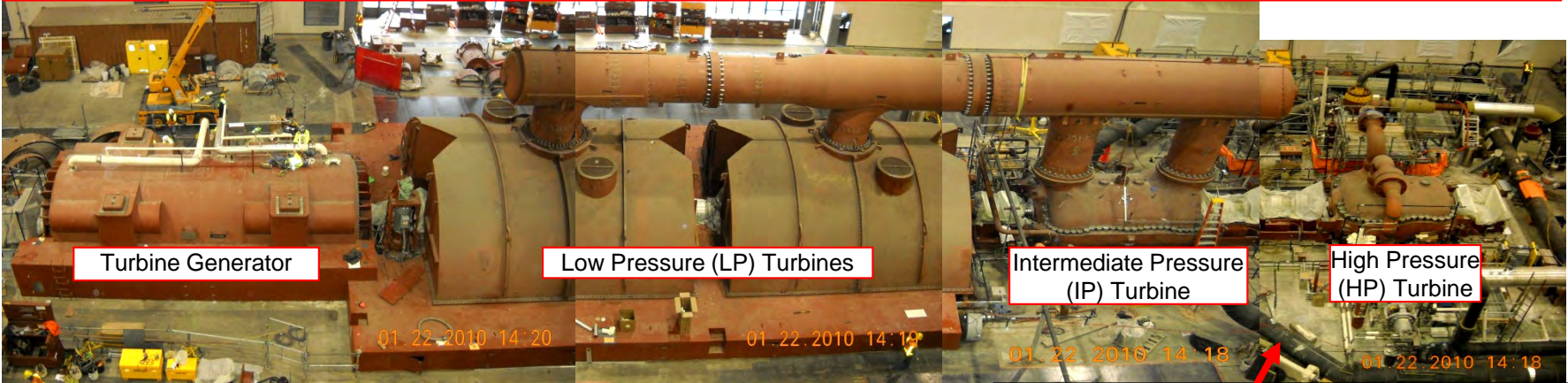


# Unit 1 Turbine-Generator



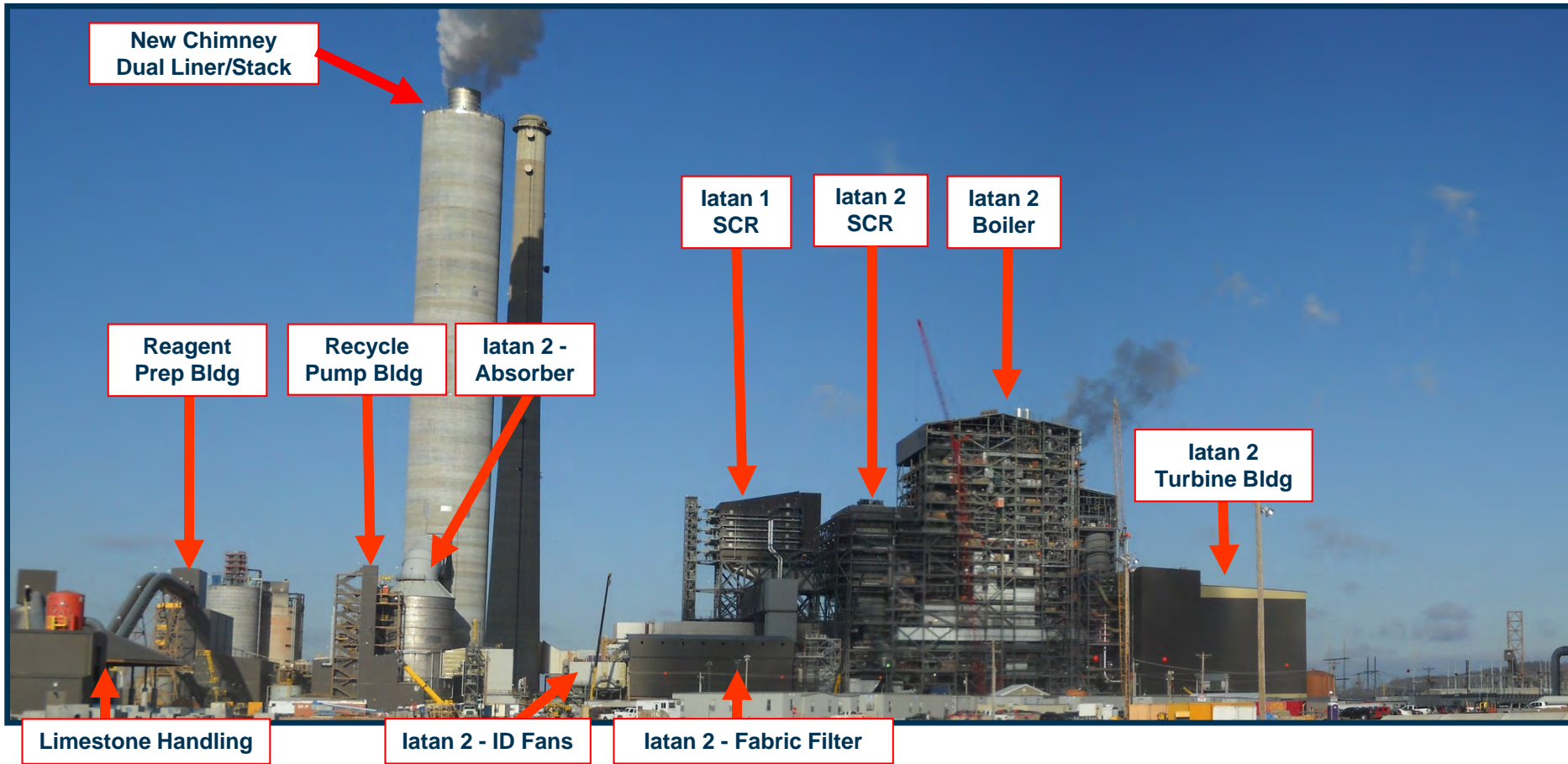
# January 2010

## Turbine Generator, Toshiba





# December 2009





# Iatan Flood 2019





And so it begins...







March 18





March 19

Mission Creek  
starts to overtop





March 21



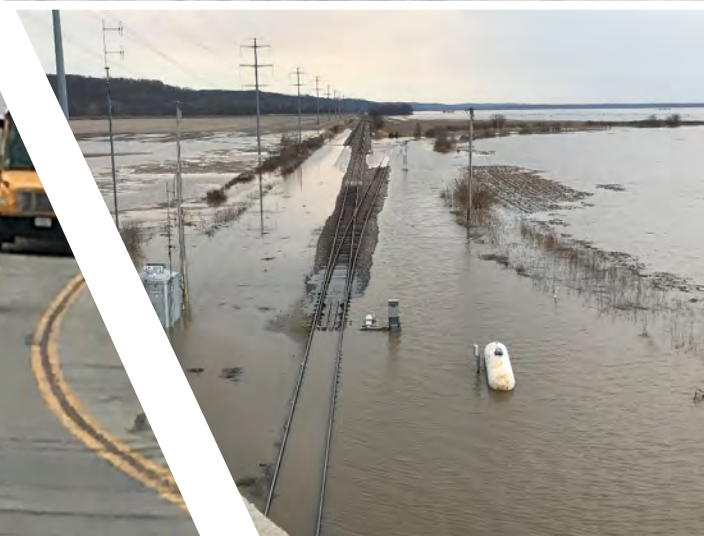


# March 22 – Wetlands flooded





March 23





# March 25 Busing and boating







March 24 Iatan Island







March 27





March 27 & 28





March 28

# Rail-truck transportation





## St Joseph Gauge

32.12' 3/22/19

32.07' 7/26/93

29.97' 6/28/11





# Tour Route

- Please be safe
- Please stay close to the group
- Open grating