

# Project Cargo Review of Risk Management Concerns and DSU Claim Issues

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**Liberty**  
International  
Underwriters.

# Transfield Kemerton

Project – Simple Cycle Power Plant

Location – Kemerton, Western Australia

Conveyance Limit – A\$64M (Total SI – A\$112M)

DSU SI – A\$32M (IP – 14mths)

Deductibles – Cargo \$25,000, DSU 30 Days

LIU Line – 100%

# Summary of Risk

## **Critical Items –**

- Two Gas Turbines – 14mth lead time
- Two Generators – 9mth lead time
- Two Transformers – 14mth lead time

## **Bottleneck Shipment –**

- Two GT plus Two Transformers from Siemens Germany
  - Conveyance Limit – A\$64M, DSU \$34M – Fully Exposed
  - GT11 on foundation: 06. April 2005
  - GT12 on foundation: 11. May 2005

# RM considerations

## RM Considerations to Voyage –

- Supplier – Siemens – Berlin – mid size type 190,000kgs.
- Delivery method - process to port proven – trailer from Berlin works to Berlin barge port, load to Rhine River barge, offloaded at Bremerhaven by floating crane, trailer transfer to lay down area, trailer load via ramp to vessel, jacked down onto stools and secured for voyage
- Freight Forwarder – Fracht AG, proven track record on projects, Bowin, BTSC, BMCL
- Vessel – “Isolde” (Wallenius Wilhelmsen), RoRo type (PCTC), 85 build, Class LR Liner run Europe – Australasia. Vessel types used in the past for these GT models.
- Surveyor – Kapitan H-J Moller und Partner, Captain Eberhard Schwarz, known to us for at least eight years.

# Loss Details

## Brief Details of Loss (Location / Cause)

- 16<sup>th</sup> Feb 2005, GT discharge from river barge by floating crane
- Landed to a Scheuerle 6 axle platform trailer via steel beams and anti-friction mats.
- Secured using 15 x 12 tonnes lever tensioned lashing chains
- Trailer to be transferred about 150 meters to a lay down area
- 09.25 unit fully secured to trailer, trailer noted to be slanting in a fore and aft direction due to location of C of G. – Stevedores coffee break
- During this period, trailer operator believed to have been preparing trailer for movement, i.e. leveling.
- Trailer apparently tilted over in excess of 16 degrees and load toppled off, over barge and into the dock.

## Arrival by barge



## Offload from barge



## Cargo lashing on transporter



## Second Turbine



# Turbine Recovery





# Claims Handling

- Immediate interaction with insured with recommendations that Siemens are contacted to establish if replacement unit available.
- Instructed insured to ensure 3<sup>rd</sup> party carriers are held liable.
- Confirmed with Siemens that “so far as concerned” underwriters agreed to salvage of unit.
- Confirmed that all salvage operations and costs were for the account of Siemens in the first instance.
- Agreed that preservation measures should be taken.
- Appointed experts to examine unit when opened.
- Negotiated (through Crawford & Co) with Siemens an overall settlement to include credit for salvaged unit and credit against insured value.

# Time Line

- DOL – 16<sup>th</sup> Feb
- Replacement Turbine Leaves Siemens – 19<sup>th</sup> February 2005
- Salvage Operation Complete – 21<sup>st</sup> February 2005
- Damaged turbine back loaded to barge for passage back to Berlin – 23<sup>rd</sup> February 2005
- Replacement Turbine Loaded to Original Vessel – 24<sup>th</sup> February 2005
- Turbine Expert Appointed – 25<sup>th</sup> February 2005
- Claim Estimate Reinsurers – 1<sup>st</sup> March
- Turbine Expert Witnessing Opening of Unit – 3<sup>rd</sup> and 4<sup>th</sup> March 2005
- Microscopic Investigation Completed – 1<sup>st</sup> Week April 2005
- Siemens final report issued – 28<sup>th</sup> April 2005
- Investigation of selling turbine on open market - Tentative Offer of US\$1M - Mid March to Mid April 2005
- Negotiation with Siemens to retain damaged unit for salvage value of A\$3.8M – 27<sup>th</sup> April 2005
- Negotiation on replacement cost with Siemens Finalized – Reduction in A\$3.1M – 6<sup>th</sup> May 2005

# Summary

- All parties onboard with need to expedite
- Replacement Turbine readily available
- Organized response driven by project experience claims personnel
- Importance of maintaining careful attention to quality of equipment used and ensure that attention maintained at all times. Substitute personnel should have been on site during coffee breaks and surveyor needs to pay attention to such issues

# Sithe Goreway

Project – Combined Cycle Power Plant

Location – Brampton, Ontario, Canada

Conveyance Limit – CAD 60,000,000 (Total sending's – CAD 215,500,00)

DSU SI – CAD 97,089,132 (IP – 18mths)

Deductibles – Cargo CAD28,500; DSU 30 Days

LIU Line – 70%

# Summary of risk

## Critical Items –

- Three Gas Turbines – 16 to 18 month lead time
- One Steam Turbine – 16 month lead time
- HRSG's – 15.5 to 17.5 months lead time (depending on which one)
- Various others with shorter time frames

# RM Considerations to Voyage –

- Supplier of HRSG's – Deltac Power Equipment (China) Co., Ltd – China – Units shipped in sections for ease of travel and erection – each piece about 300 tons
- Delivery method – Loaded aboard vessel in Nanjing, China, from ship to Rail in Becancour, Quebec
- Freight Forwarder – Convoy Logistics, Oakville, Ontario, Canada
- EPC – SNC Lavelin – experienced EPC contractor
- Vessel – M/V LEDA, voyage 51-084-28 Box type heavy lift vessel with means to self load and discharge.
- Surveyor at load port – **East China Adjusters & Surveyors Co., LTD.** Captain Alex Chen – Approved Survey list since inception

# Project timeline

- November 16, 2006 – Notified that HRSG provider – Deltak – had sought Chapter 11 protection
- Late November – informed that SNC Lavalin had taken over management of Deltak to allow completion of HRSG's
- January 23 – 26, 2007 – HRSG #1 loaded aboard M/V LEDA at Port of Nanjing, China – our surveyor in attendance – no notice that cargo improperly packed, stowed or lashed
- March 8, 2007 – Notified by SNC Lavalin that vessel had reported two HRSG bundles sustained damage on Feb 8, 2007.
- Deck log dated Feb. 08, 2007 at 08:00hrs. It was sunny, seas were 2.5 meters with winds out of NNE at force 4 (nice breeze).
- Vessel arrived Becancour at 1224 hrs on March 11, 2007

# Arrival of Vessel





## Time Line (cont.)

- Cargo consisted of 14 HRSG Modules
- 12 intact and direct discharged to Rail
- 2 damaged – harps discharged to truck and stored at facility – frames discharged to rail

## Repair time line

- April 10 to 20 -Units loaded on Trucks
- April 11 to April 20 - Arrival Trenergy
- Early May 2007 - Repair supplies arrive Trenergy
- July 26, 2007 - Repairs completed
- Mid August 2007 - Modules Installed

# Repairs in progress



# Lessons learned

- Important that surveyor be “hands on” and not merely record pack and stow. He must challenge when necessary.
- Underwriters must maintain good communication with Assured. Misunderstanding with Assured led to belief that claim wouldn't be addressed until the Assured provided a Plan for Execution, and underwriters approved the Plan.
- Underwriters failed to realize that this was cause of the delay issue until they received:
  - Rather heated phone call from Project manager weeks after the loss

# Lessons Learned

- **What should have been said (and eventually was):**
  - “The assured has an obligation under the terms of the policy to act at all times as a prudent uninsured. We therefore agree that the Assured should take all necessary steps to ensure that repairs to the damaged Modules are carried out in a reasonably expeditious manner at Trenergy Inc.’s facility in St Catherine’s, Ontario.”

# Ship Comparison



# Summary

- Load port surveyor did not properly ensure the cargo ready for shipment
- Plans were not started as soon as damages known (UW not informed until 1 month post incident)
- EPC contractor defensiveness
- Unclear communications with Assured and no written follow-ups

# Energia Del Sur (EnerSur)

- EnerSur - 2<sup>nd</sup> largest provider of electrical power in Peru at 830 MW (without Chilca 3)
- Est. in 1996, first PPA w/ Southern Peru Copper Corp in 1997
- Hydro and Thermal Generation
- Provided 52% of all new generating capacity in Peru from 2005 – 2009
- EnerSur growth - 200% between 2005 – 2009
- Free customers (PPA w/ EnerSur) and Excess Capacity (Grid)
- 20% total market share, 56% share in PPA market
- Regulated by COES (Comite de Opercion Economica del Sistema Interconectado Nacional)
- Dispatch based on unit efficiency – most efficient first to ensure safe, reliable power



# Energia Del Sur (EnerSur) Simba Project

## **Simba / Chilca 3 Project – Chilca, Peru**

- Expansion of Chilca generating plant to include a 3<sup>rd</sup> gas turbine unit - 192MW Siemens model SGT6-5000F
- EPC – Siemens Power Generation Inc.
- 2 existing GTs – Chilca 1 (TG 11) and Chilca 2 (TG 12)
- All Simple Cycle
- Total plant MW – 545MW
- EnerSur capacity with Chilca 3 – 1030 MW system wide
- Anticipated Project Completion Date – 3/28/09

# Energia Del Sur (EnerSur) Policy Details

## Section 1 – Physical Damage

- First Named Insured – Energia Del Sur as Principal/Owner
- Named Insured – Siemens Power Gen as EPC Contractor
- Limit - \$45M USD any one vessel, conveyance, and/or location
- Deductible - \$25K

## Section 2 – Marine Delay In Start Up

- First Named Insured – Energia Del Sur
- Limit – \$39.7M for 12 month indemnity (\$3.3M / month)
- Deductible – 30 Day



## Energia Del Sur (EnerSur) Loss Details – Hurricane Ike 9/13/08

- 110 crates / 23 truckloads of cargo moved to Intermarine Terminal staging area between 9/4/08 and 9/7/08 for shipping from the Port of Houston to Peru.
- Vessel (Intermarine Dart or Century) cutoff date was 9/8/08. Vessel delayed due to Ike. Loading delayed.
- Cargo included wide ranging items such as electrical equipment, generator enclosure panels, filters, piping, conduit, fuel and lube oil system components, instrumentation, misc. hardware
- Commencing 9/10/08, Siemens attempts to move cargo to high ground once it is determined that Ike landfall will be Houston area
- Siemens was able to move rail mounted generator to high ground, but unable to move crated cargo due shortage of personnel and trucks
- Cargo is inundated with surge waters up to 7ft.

# Energia Del Sur (EnerSur)

## Critical / Long Lead Damaged Equipment

<u>Equipment</u>	<u>Estimate</u>	<u>Expedited</u>	<u>Reduction</u>
LO Cooler	249 days	153 days	96 days
VT & Surge Cubicle	199 days	149 days	50 days
Generator Excitation Transformer	170 days	128 days	42 days

# Energia Del Sur (EnerSur) Project Scheduling

- Original Anticipated Completion Date – 3/28/09
- At time of loss, Project was 70% complete compared to plan of 60% as confirmed by Project Management consultant.
- At time of loss, Commercial Operation Date (COD) was projected to be 3/24/08 as confirmed by Project Management consultant.
- Due to loss, Siemens initially projected that Project would be delayed to Dec / Jan 2010, later revised to Nov. 2009, an 8 to 9 month delay. This would equate to a DSU loss of some \$29M gross based on \$3.3M / month.
- The expeditious replacement of equipment and installation of same at Project Site resulted in actual COD of Aug 2, 2009, a 4 month delay. At \$3.3M / month, this would project to a DSU loss of \$13.2M gross
- Other than the loss, Project Management consultant identified no factors that caused or contributed to the delay.

# Energia Del Sur (EnerSur) Ike Property Damage Claim

- Initial reserve established at \$5M based on initial surveyor site visits and inspection of damaged equipment.
- Claim for Property Damage made by Siemens as Named Insured.
- Siemens makes claim for Ike damaged equipment based on customs declared value at \$4.078M, later revised to \$4.437M. Siemens claim is based on selling price to EnerSur.
- Policy Valuation – invoice plus 10%
- Forensic Accountant advises that unverified cost is likely 40% - 50% of selling or likely in \$2M to \$2.5M range.
- In Dec. 2009, after much vigorous debate, Siemens agrees to make claim at invoice plus 10%, not selling price. Actual claim is now \$2.92M plus 10%.
- Claim documentation has been received and reviewed by Forensic Accountant

# Energia Del Sur (EnerSur) Ike Property Damage Claim

## Repair vs. Replace

- Extent of damage
- Time associated with sending to vendor for inspection and assessment
- Vendor's not necessarily repair capable
- Cost
- Control of Damaged Merchandise – OEM warranty provision
- Replacement more cost and time efficient

## Energia Del Sur (EnerSur) Ike DSU Claim

- Enersur has made claim for DSU as First Named Insured.
- Original DSU loss estimate was \$29M based on an 8 to 9 month delay (gross of Siemens LDs).
- Claimed and agreed period of interruption is 3/24/08 to 8/2/09.
- Enersur's initial claim was approximately \$16.5M gross lost revenue.
- Project Accountant made site visit to Lima in June 2009 to review EnerSur's DSU claim calculation methodology.
- Final claim submission in Dec 2009 was for \$13,103,830 gross lost revenue. Additional claim was made for \$500,429 for expenses to avert and minimize DSU, such as rescheduling maintenance outages on TG11 and TG12.
- Project Accountant made site visit to Lima in Jan 2010 to audit final claim
- Agreed revenue loss is \$10,889,873 net.
- \$500,429 claim for expenses to avert is negotiated to \$364,530
- Final agreed and paid Section 2 loss is \$11,254,403 Net



## Energia Del Sur (EnerSur) Coverage Discussion Points

- Siemens declares Force Majeure (FM) under EPC contract. Siemens contends that:
  - Ike loss was beyond reasonable control of Siemens and its vendors
  - Not reasonably foreseeable
  - Not caused by negligence
- Fortuity – vessel delay of 9/8/08 and Ike tracking - was loss foreseeable?
- 60 Day temporary storage issue – Ike cargo back in transit
- Delay Liquidated Damages – Siemens liable for \$50K / day or \$1.5M / month if not FM
- Valuation
- Control of Damaged Merchandise – OEM warranty provisions
- Minimizing Loss – EnerSur's legal review and position

# Motiva Enterprises LLC

## Port Arthur Crude Expansion Project

- Motiva formed in 1998 as joint venture between Shell Oil and Saudi Refining
- 3 refineries – Port Arthur, TX; Convent, LA; Norco, LA
- 780,000 bbl / day system capacity
- Port Arthur Refinery built in 1903 as Texaco's 1<sup>st</sup> refinery. Current 325,000 bbl / day.
- Major products – gasoline, jet fuel, lubricant base oils, distillates
- Sept. 2005 – Expand Port Arthur to 600,000 bbl / day – largest refinery in US

# Motiva Enterprises LLC

## Port Arthur Crude Expansion Project

- The expansion includes 4 GE / Nuovo Pignone gas turbine generator sets to meet the increased power requirements of the expansion.
- MS6001 (frame 6) gas turbines rated at 36,125 kilo watts each at base load operation.
- GT replacement cost - \$7M - \$8M USD
- The exhaust heat from the gas turbines is run through heat recovery steam generators utilizing the heat for steam production
- Original Anticipated Project Completion Date – June 2010
- Revised Project Completion Date – Jan 2012

# Motiva Enterprises LLC Policy

## Section 1 – Physical Damage

- Principal Insured – Motiva Enterprises LLC as Principal
- Additional Insured – Bechtel / Jacobs as EPC Contractor
- Limit - \$70M USD any one vessel, conveyance, and/or location
- Deductible - \$100K

## Section 2 – Marine Delay In Start Up

- Principal Insured – Motiva Enterprises LLC
- Limit – \$480M for 24 month indemnity
- Deductible – 45 Days in aggregate

LIU at 23%

Choice of Law = Texas



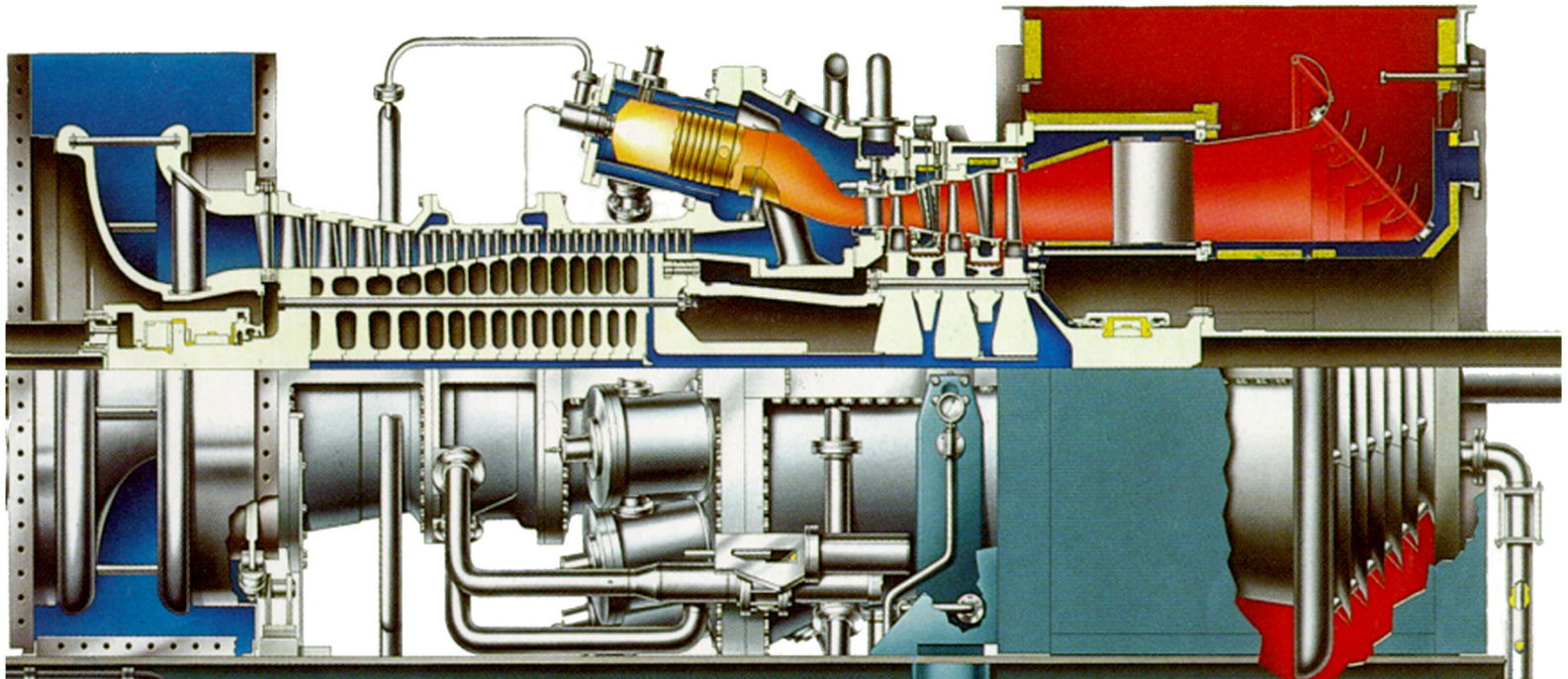
# Motiva Enterprises LLC Events

- The 4 gas turbines were loaded for ocean transport from Livorno, Italy in early August 2008 and discharged ex vessel (M/V Saudi Hofuf) at Barbours Cut Terminal in Houston on September 2, 2008.
- Crawford discharge survey - all 4 units arrived in good condition and covered with vinyl tarp
- All 4 units remained at Barbour's Cut Terminal through Hurricane Ike and until early to mid November 2008 when shipped to Project Site.
- In November, each unit was trucked to the Project Site and immediately placed on its foundation. Unit No. 1 arrived at the site on 11/8/08, Unit 2 on 11/11/08, Unit 3 on 11/13/08 and Unit 4 on 11/19/08.
- Bechtel Engineering Inspection Reports (EIR) show water entry in turbine inlet and discharge plenums. Water drained, but no further inspection or mitigation activity undertaken.
- LIU notified on 12/8/08.

# Motiva Enterprises LLC Events

- Bechtel proceeds with installation of ancillary equipment and inlet and exhaust ductwork.
- Boroscopes completed by GE on all 4 units from 2/17/09 through 2/24/09. Severe corrosion of the turbine internals.
- Units 3 & 4 pulled and shipped to GE Houston repair facility in April 2009. Units 1 & 2 in Jan 2010
- Units 4 & 3 opened in Fall 2009, Units 2 & 1 opened in Winter 2010.
- Actual scope of damage less than originally thought based on borescope inspections. Scope of repairs primarily dismantle, clean, polish, some TBC refurbishment. Some non loss / warranty items noted.
- GE repairs estimated at amount less than replacement
- Bechtel associated costs incl. crane rental
- Total repair expense estimated in the millions

## MS6001-B





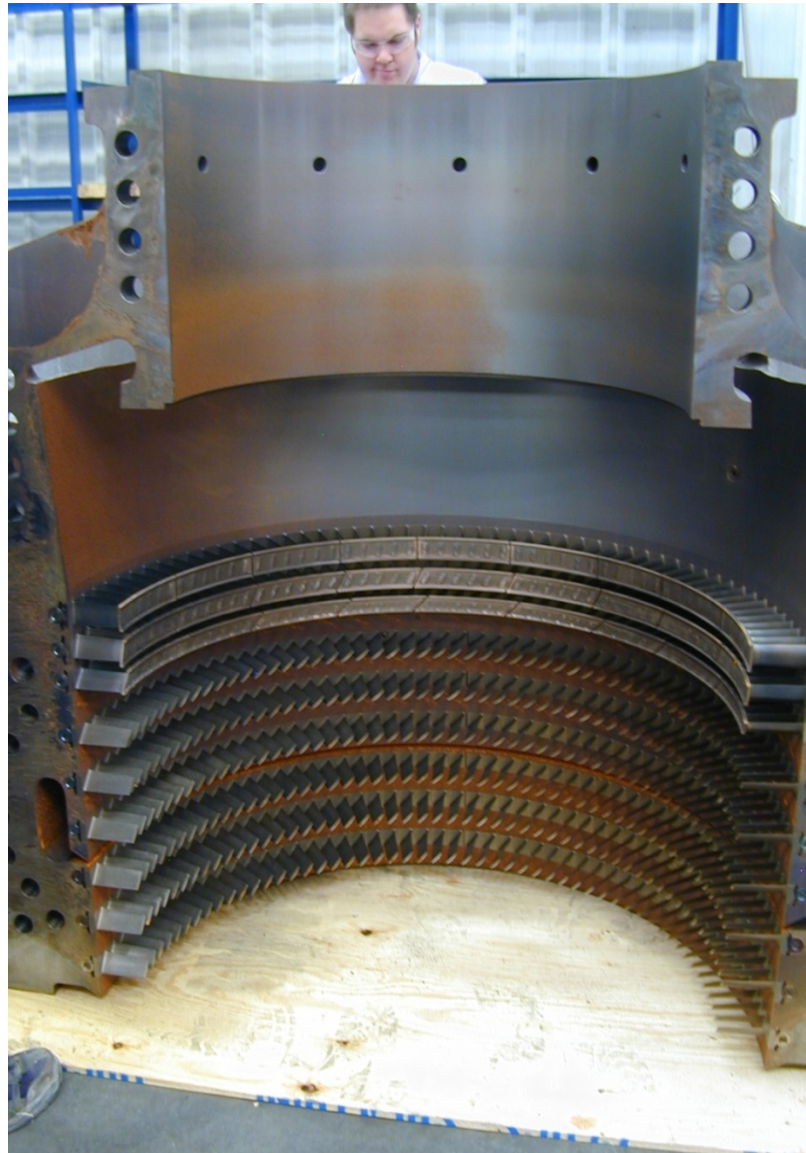






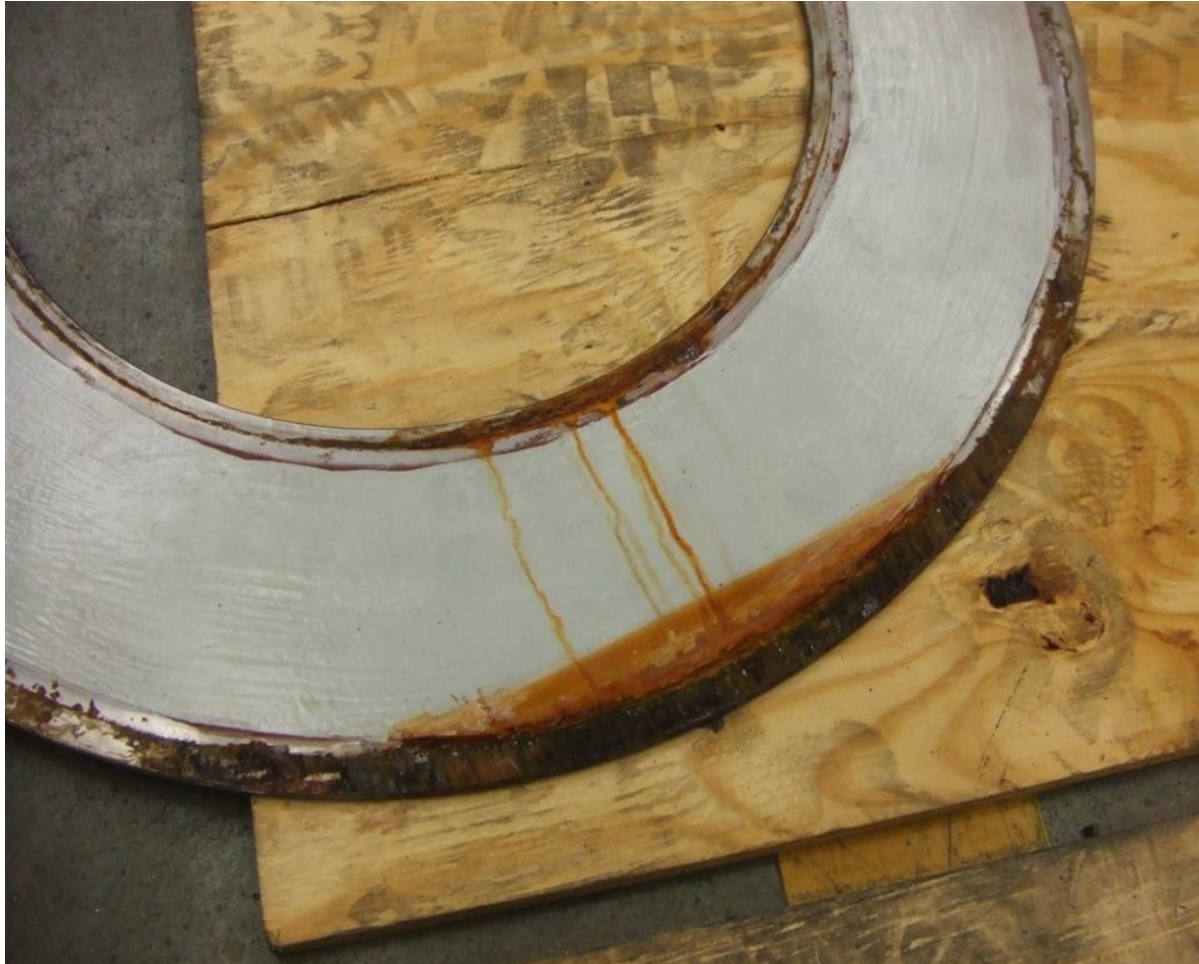




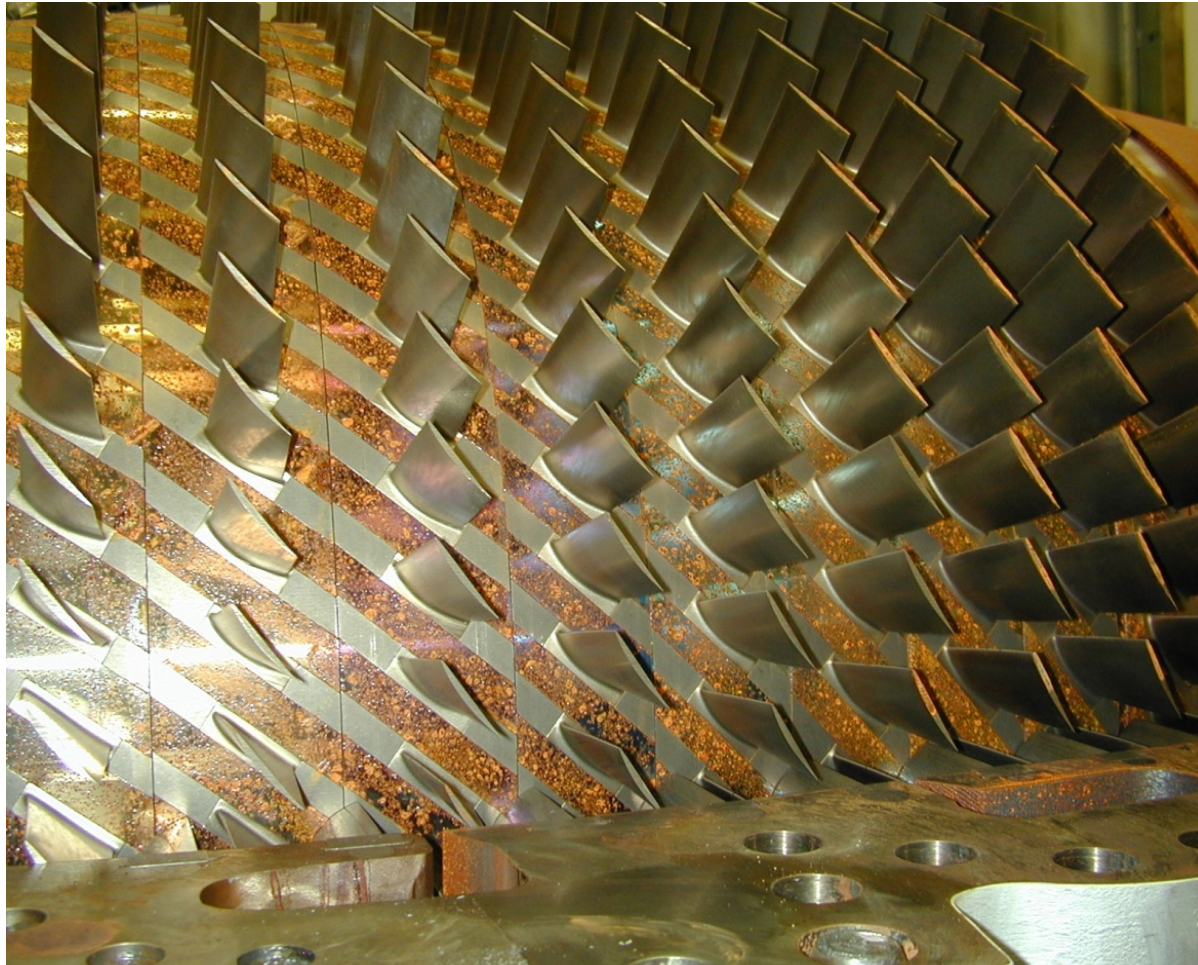












## Motiva Enterprises LLC

### Turbine Status as of May 2010:

- Unit 4 – repaired, returned, installed at Site
- Unit 3 – repaired, returned to Site, awaiting install
- Unit 2 - at GE shop, water damage repaired, awaiting blades for non loss warranty work. Expected to be returned to Site early June
- Unit 1 – at GE shop, ETA for complete repair and return to Site – 7/13/10.

# Motiva Enterprises LLC

## Property Damage / Coverage Matters

- Water entry – plenums or load tunnel
- Mitigation efforts – why install units? delay in conducting borescopes and disassembly
- Bechtel labor for dismantle of equipment
- Prima facia claim – presence of water in plenums upon site delivery
- M&M lab analysis – salt vs. fresh water / corrosion sample deposits
- Rate of corrosion – corrosion at Barbours Cut vs Project Site

## Motiva Enterprises LLC Property Damage / Coverage Matters

- Scope of repairs – damage sustained at Barbours Cut would require dismantle, clean, and polish
- GE supervision – the role of GE representative
- Outdoor Storage matter – packaging / preservation suitable for 12 months indoors or under cantilever roof. Also good for 6 months outdoor (thru) Mar 2, 2009
- Delay in Opening – if discovered within 120 days of cessation (thru 3/2/09), then transit unless proof conclusive to contrary
- Non-Vitiation
- Control of Damaged Merchandise – OEM warranty provisions



# Lessons Learned

- Preservation of equipment vital
- Work with the supplier and Client to facilitate the repair
- Fortunately project delayed and the delays in repairs had no material impact.

# MPX Parnaiba - Brazil



# MPX Parnaiba Generator Discharge



# MPX Parnaiba Generator discharge





# MPX Parnaiba Placement on trailer



# MPX Parnaiba lashing



# MPX Parnaiba lashing



# MPX Parnaiba lashed to trailer



# MPX Parnaiba



# MPX Parnaiba



# MPX Parnaiba



# MPX Parnaiba Photo 12





# MPX Parnaiba Photo 13



# MPX Parnaiba



# MPX Parnaiba



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# MPX Parnaíba



# Lessons

- Trailer changed from original move to this move
- Trailer inspection key
- Loss occurred last week
- Too early for much discussion

- Questions