

## FPL Nuclear Power Plant

Blue Works Breezes Through CIPP Lining of Nuclear Power Plant with Armed Homeland Security Over Watch







#### Job Breakdown

Site Undisclosed FPL
Nuclear Reactor
Facility, Process
Drainage near Flex
Building

Piping 24" Corrugated
Metal Storm &
Process Water Drain
from Main Retention
Pond to Exfiltration

#1 Photo of Reactors
from Work Area,
Steam in Foreground
is from Liner
Cooking Process

#2 Lower Left: Before
Photo of Pipe,
Corrugated Metal
with Holes allowing
Rocks and Sand In.

#3 Lower Right: After
Photo of Pipe, With A
structural CIPP Liner
with Specified Load
Design Calculations



### Comment by FPL Supervisor

"Wow, you really don't have to tell your guys much, everybody knows what the're supposed to do, seriously"

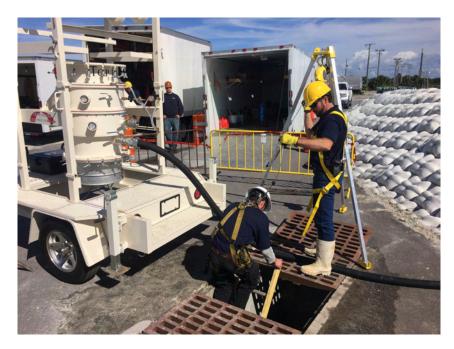
- Anonymous

### Same Work New Tricks

After Years of Water Inverted Liners
Cured with Boiler Cure, Air Inversion with
Ambient Cure & Cemtitious Mortar Spin
Casting, Blue Works Acquired a Turn Key,
Mid-Large Diameter Air Inversion CIPP
Liner Shooter & Steam Curing System,
allowing for CIPP Liner Inversion in less
than an hour & a 90 Minute Cook Time, to
complete the CIPP Liner Installation in an
8 Hour Day.

Time was of the essence on this project, due to the restrictions of a Homeland Security Protected Nuclear Reactor Facility, the required amount of Customer Staff, Safety & Security Personal Coordination, overtime due to delays is extremely expensive for the facility as the painful coordination required four different Contractor oversights, Job Site Safety, Nuclear Contamination Safety, Project & QC Control and On-Site Armed Security Personal (Automatic Weapons.)

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"We wish we had known about you guys on the last project, we couldn't believe the costs"

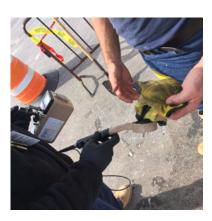
# Safety for the Nuclear Facility is Job #1, and the biggest component of the Completed Project Evaluation

During the submittal process, prior to being onsite, the Customers Biggest Concern was Blue Works Injury Loss Rate, this is a rate identified buy our insurance carriers, in direct correlation with our worker injury claims. Although our rate was well below the threshold we had no idea how aggressive safety would be on this job, having said that we have a

new respect for the volume of training the Customer & its

Contractors undergo. We learned a lot from these guys and are big advocates of the FPL brand & the quality of People they employ. One of the Blue Works Technicians called his current electric provider on his lunch break, and attempted to switch to FPL, stating, "FPL is nicer to me".

Even though the holes were only 6'
Deep, Blue Works provided Full
Restraint Fall Protection, while the
holes were open, including Air
Testing Equipment, Ventilation
Equipment, Retraction Equipment,
Maintaining a 6' no un-restrained
personal radius around the holes
with a Hard Barrier to boot, personal
checks were mandatory.



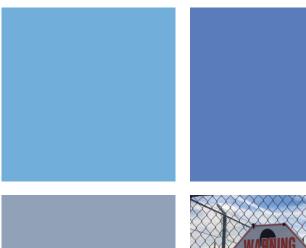
### Nuclear Contamination Monitoring

During the entire Project, the
Customer provided a On-Site
Nuclear Safety Technician who's sole
job was to test all personal, tools and
equipment that entered the hole with

a Geiger Counter, each time it entered and exited the hole. This included hands, boots, tools and sunglasses. Although nothing was contaminated, one of our Tech's dropped his Costa's and our Monitor laughingly declared he must confiscate them for safety purposes.

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### Getting the Job Done Set-Up, Safety, Quality & Speed

Notwithstanding the Armed Guards with Machine Guns, Nuclear Reactors & an Organization with 15 Billion Dollars in Annual Revenue, Blue Works was assigned with the primary task of Inspecting, Cleaning and CIPP Lining a Corrugated Metal Storm & Process Water Drain, that was being force fed buy an 8" Mechanical Pump, without being seen or heard by the Customer, it's management or disrupting the daily operation. The standard operating procedure for the plant in the event of a non-fatal injury or Contractor Work Failure is a plant Lockdown until following day. Blue Works Mantra is Projects are Won or Lost in the Set-up and Wrap-Up. The Project was staged over a 3 Day

Period. 1st Day was On-Site Mobilization, Safety Training & Project Brief, Pre-Inspection, Cleaning, Post Cleaning Inspection and CIPP Equipment Staging. 2<sup>nd</sup> Day was Equipment Test, 3,000 lbs. CIPP Liner Delivery in a 35 degree refrigerated truck, Liner Inversion, and Steam Cure with Two (2) Diesel Fired Dry Steam Generators, Heating Water to 400 degrees Fahrenheit, with Manifold Heat @ 275 Degrees at 30 PSI. 3<sup>rd</sup> Day was Jobsite Breakdown, Punch-Out and Clean-Up with a 4<sup>th</sup> Day allocated for project defect remediation.

(continued)

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#### **Project Issues:**

Even though the Project was a Success by all measure, it didn't go without its share of issues with immediate action required to meet demands. The Piping started to fail during the Cleaning Process and had to be completed with adjusted equipment without finish product compromise. The down stream needed emergency 36" Plugging, the Liner had to be shot backwards due to access. The Condensation from the steam had to be pumped from the head and by-passed to a downstream manhole, and the spear blew out during the cook. But we're proud of these challenges, after-all, unless we told you, the pipe, the customer and staff wouldn't have known it, because that's the Blue Works Difference, knowing how to fix problems, so you don't have too.

Staging & Set-up was
Critical at the Newly
Installed Flex Facility,
having A Clear Line of
Sight, meant just that,
from every angle









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