

# INSPECTION & MAINTENANCE

TURNKEY SOLUTIONS INCLUDE:

- Offline Inspection
- Offline Robotic Video & Borescope Inspection
- Offline Cryogenic Cleaning for IPB
- Supply & Installation EBI's Proprietary Welded Inspection Windows
- Supply & Installation of Drains, Air Pressurization Systems, Forced Air Systems
- Online Monitoring Solutions
- On-Location Silver Plating
- Repairs, Refurbishment & Replacement
- Rebuild & Fabrication (any OEM)
- Replacement Parts & Hardware
- Final Verification Testing (AC/DC Hi-Pot, Megger, DLRO, etc.)



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Do you know what's hiding in your bus duct?



**ELECTRICAL BUILDERS, INC.**  
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Do you know what's hiding in your bus duct?

## BUS DUCT FAILURES ARE ON THE RISE

In recent years, EBI has been called to a growing number of failures and near failures at power generation facilities across the U.S. due to issues experienced which involve the system critical electrical bus duct. Although the value of the electrical bus duct system may seem minimal when compared to that of the generator or the transformer, the bus duct system plays a vital role in the plant. Consider it the lifeline between both of these high value components. If the electrical bus duct fails due to poor inspection and maintenance practices, it has the potential of damaging other components that it is connected to, such as the transformer. Most OEMs recommend maintenance yearly, at every scheduled shut-down, or at a minimum of every 24 months. Proactive utilities are implementing fleet wide critical asset initiatives by partnering with EBI, the industry leading bus duct service experts, who can properly document and correct potential issues before they materialize; resulting in less down time and increased operational efficiency and safety.

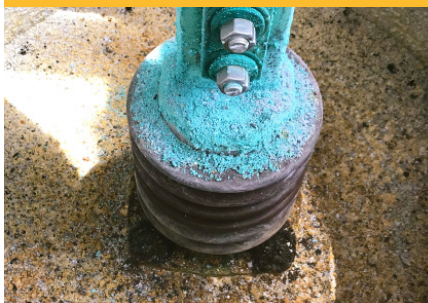
## EBI's ASSET LIFE EXTENSION PROGRAM

Proactive preventative maintenance, per industry standards, is essential to any asset life extension program. Experience has shown that electrical bus duct systems have failed due to:

- Presence of moisture or water intrusion
- Dirt and debris build up
- Grounding issues
- Improper, loose, or missing hardware
- Damaged flexes, laminates and jumpers
- Inadequate or cracked welds and/or bellows
- Warped surfaces or lack of silver plating
- Excessive heating
- Cracked insulators

The number one way to extend the life of your system critical electrical assets is proper inspection and maintenance

PROBLEM: DIRT/DEBRIS



performed by qualified and experienced team of bus duct technicians. Since 1974, EBI has led the industry with our safe, environmentally friendly and innovative inspection techniques.

Over the past few years, "online monitoring" options have exploded in the marketplace. Some are 'point in time', others claim to be 'continuous'. EBI can walk you through the pros/cons of each to determine if this investment will provide the results that meet your short-term objectives.

Industry statistics demonstrate that the only way to truly gain an accurate assessment of the health and condition of your electrical bus duct system is to have a thorough offline inspection, ideally supplemented with manual, robotic and/or borescope inspection, performed by

SOLUTION: CRYOGENIC CLEANING



experienced and qualified personnel from EBI. We will provide an in-depth status report documenting our findings and recommendations, as well as a baseline from which you can measure your bus going forward. If applicable, EBI will also provide a proposal for repairs and improvements.

Lastly, EBI will perform a thorough bus duct cleaning. EBI was the first isolated phase bus duct services contractor to develop and introduce environmentally friendly cryogenic cleaning for internal IPB components. This process cleans more than just the insulators; it thoroughly cleans inside the entire length of the bus duct system, which is where many issues hide. Cryogenic cleaning removes dirt, debris and contaminants without leaving a residue or damaging equipment.

PROBLEM: WATER INTRUSION



SOLUTION: DRAINS



SOLUTION: AIR PRESSURIZATION SYSTEM



PROBLEM: DIRT/DEBRIS



SOLUTION: CRYOGENIC CLEANING



SOLUTION: CRYOGENIC CLEANING



SOLUTION: WELDED INSPECTION WINDOWS



PROBLEM: DEGRADED BELLOWS



PROBLEM: CRACKED BELLOWS (METAL)



SOLUTION: ROBOTIC INSPECTION



PROBLEM: DIRT/LACK OF SILVER PLATING



SOLUTION: PROPER MAINTENANCE



PROBLEM: BAD WELDS



Experience the EBI difference!

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