GEH PAMS ... A Custom PARTS Solution to Help Ensure the Lifetime Availability, Reliability & Performance of Your Electronics Systems

Do You Have Quality Parts Available To Keep Your Systems Operational?

If your answer is "Maybe", "No", or "I don't know", you are not alone. Due to obsolescence, the risk of counterfeits and various supply chain constraints, ensuring a sufficient quantity of quality spare parts are on hand to safeguard that your plant is operational is challenging. As the industry leader in Boiling Water Reactor (BWR) technology, GE Hitachi Nuclear Energy (GEH) offers a wide range of products and services that help ensure the safe operation and maintenance of the plant, while bringing greater efficiency and output. GEH PARTS Asset Management Solutions (PAMS) provides nuclear plant customers a proven methodology that will enable the proactive identification of spare part issues and their associated solutions. Implementing PAMS will enable you to confidently answer "Yes! I do have quality parts available to keep my systems operational."

PARTS Asset Management Solutions (PAMS) Methodology

The four steps to successfully deploying PAMS:

1: Scope
2: Assessment
3: Execution
4: Refresh

Key Tasks:
- Site team and GEH define project scope, i.e. the systems and parts that will be evaluated to determine issues and associated solutions
- Define operational meanings of key terms, i.e. critical parts, obsolescence, inventory management parameters, etc.
- GEH completes a comprehensive analysis of the parts in scope and using GEH’s proprietary database, generates a System Health Report (SHR)
- SHR will identify obsolescence, end of life, shelf life, counterfeit risks and inventory management issues
- Site Team and GEH collaborate to develop action plan
- GEH deploys resources to implement action plan
- Update System Health Report with current data for parts in scope
- Repeat steps 1 – 3 for new systems added to scope

Deliverables:
- Project scope defined
- System Health Report
- Customized recommended solutions
- Deploy Customized GEH Solutions
- Generate System Improvement Report
- Up-to-Date System Health Report
## GEH System Health Report

**Customer:** xxxxxx  **Plant:** xxxxxx  **System:** NUMAC

**Date:** July 20, 2011

### Spare Part Details

<table>
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<tr>
<th>GEH Equip. Package Number</th>
<th>Part number</th>
<th>Part Description</th>
<th>Qual Class</th>
<th>Total Install Unit 1</th>
<th>Total Install Unit 2</th>
<th>Customer Part Number</th>
<th>Inventory Qty</th>
<th>Qty On Order</th>
<th>Recom. 3-Year Spares Qty</th>
<th>Recom Qty To Order</th>
<th>Shelf Life (Months)</th>
<th>Shelf Life Risk</th>
<th>Obsolescence Rating</th>
<th>Failure Risk</th>
<th>Counterfeit Risk</th>
<th>Criticality (H, M, L)</th>
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### GEH Solutions

- **Spare Parts**
  - Quote-to-Order parts fulfillment
  - Inventory Management
  - OEM Certified

- **Expanded Exchange Services Program (EESP)**
  - Obsolescence Managed by GEH
  - Parts shipped in 24 hours
  - 5 Year Partnership

- **Engineering Services (ES)**
  - Obsolescence solutions identified during quote phase
  - OEM Certified Replacements
  - Better Alternative Than 3rd Party Reengineering
Inventory Management:
**Objective:** Identify situations where Customer inventory quantities are less than “recommended spares” quantities

**Legend:**
- Red: Customer inventory quantity less than recommended spares quantity
- Green: Customer inventory quantity greater or equal to recommended spares quantity

**Action Plan:** Assess if order quantities highlighted in “Recommended Qty To Order” column need to be ordered

Shelf Life Risk:
**Objective:** Highlight parts whose shelf life has expired

**Legend:**
- Red: Shelf Life Expired
- Yellow: 80% Shelf Life Used
- Green: Less Than 50% Shelf Life Used

**Action Plan:** Determine if expired shelf life parts are usable. GEH Engineering Services (ES) can provide options on how to extend shelf life periods

Counterfeit Risk:
**Objective:** Highlight parts that are linked to counterfeit components

**Legend:**
- Red: Counterfeit identified
- Green: No known counterfeits

**Action Plan:** GEH Engineering Services (ES) can provide details on the counterfeit components, i.e. manufacturer & methods to confirm counterfeits

Criticality:
**Objective:** Customizable field used to prioritize issues

**Legend:**
- Red: Per customer definition, highest priority
- Yellow: Per customer definition, medium priority
- Green: Per customer definition, lowest priority

**Action Plan:** Site Team and GEH use criticality ratings to prioritize which parts issues to resolve

Obsolescence Risk:
**Objective:** Highlight parts that are obsolete or have end-of-life notices

**Legend:**
- Red: Part is obsolete or has obsolete components
- Yellow: Part has end-of-life notices
- Green: Part available

**Action Plan:** GEH provides the following solutions to resolve obsolescence issues:
- Expanded Exchange Service Program (EESP): GEH managed Inventory of obsolete part
- Engineering Services (ES): Transactional obsolescence solutions

Failure Risk:
**Objective:** Identify parts that historically have failed across the global fleet

**Legend:**
- Red: Part failure rate ≥ 10%
- Green: Part failure rate < 10%

**Action Plan:** GEH provides Engineering Services (ES) to proactively identify solutions to mitigate high failure rate parts