Instructions for the 8D Problem Analysis Report

Information:

- 1) Supplier Name: Parent company name and location
- 2) Product Description: (e.g., 42 shaft)
- 3) Issue #: specific SCAR #
- 4) Date Issue Occurred: Date issue occurred or if repeat date issue reported to Supplier
- 5) 4D Due Date: Date due from supplier. Default is 2 business days from date issued
- 6) 8D Due Date: Date complete report is due from the supplies. Maximum is 20 business days from date issue occurred.
- 7) Date Issue Closed: All permanent corrective actions have been implemented and their effectiveness validated; All required support documents have been submitted. (<20 days)
- 8) Sample size/AQL level: sample size inspected or AQL level used.
- 9) Plant/location: Where the issue was found, in field or at Lixil Plant
- 10) date issue closed: date when Lixil approves the 8D from supplier.
- 11) SCAR issue date: Date when Lixil issued the SCAR to supplier.
- 12) SCAR Number: Lixil's unique SCAR number.

Section 1 - Team Members:

- 1) Champion Name/Title/Phone Number/Email Address: Contact information for the individual who is leading the corrective action and submitting the 4D/8D.
- 2) Additional Team Member Name(s)/Title(s)/Phone Number(s)/Email Address(es): Contact information for the cross-functional team members who share responsibility for the corrective actions.

Section 2 - Problem Description:

- 1) Description: Describe the issue from a customer's perspective; what would they know?
 - When: When were the parts manufactured? When were they assembled?
 - When were the assemblies shipped to the customer? When shipped from OEM?
 - Detection: How was customer made aware of the issue? Who provided the information?
 - Extent: How many units are suspected? Proportion found suspect. Where has the data come from in house, in transit, at customer.
 - Failure Mode: How does the issue manifest itself?
- 2) Impact on Customer: Identify the potential for shut down, line interruptions, product recalls, warranty. etc.
- 3) Facilities Involved: Customer, Plants and any Suppliers

Section 3 - Interim Containment:

- 1) What actions were taken to immediately protect the customer and contain any suspect inventory? Since original notification, how are we containing this issue? What is the current containment status? What sorting have we done, where and how have we verified its effectiveness? If a rework or retrofit plan has commenced what is it and how have, we verified effectiveness attach plan with sketches and trend graphs.
- 2) Other Product/Platform at Risk: Other Lixil lines, Lixil plants or Customers who may be impacted by this issue
- 3) Identification of Certified Material: Color, size, location, and content of label or hand-written identification on each part and/or container of certified material.
- 4) Sorting Results: Time, date, total number sorted and quantity rejected broken down by facility (e.g., Customer, Lixil, Suppliers)

- 5) Sorted #: Total # sorted at all facilities
- 6) Defect #: Total # of defects found at all facilities
- 7) Interim Containment Start Date: Date

Section 4 - Root Cause:

Note: The form provides fields for documentation of a single root cause. If additional root causes are identified, "Copy" rows 32-35 and "Insert Cut Cells" to create additional fields.

- 1) Why Made & How Verified: Identify each root cause for why the issue occurred. Has it been turned on and off? How? Verify through statically evidence/hypothesis testing. If not verified by turning on/off, identify as a suspected root cause. Variation: What are opportunities for variation in the process, i.e. how many fixtures do the same process? How many weld cells or robots? Etc.
- 2) Why Shipped & How Verified: Identify each root cause for why the issue escaped. Has it been turned on and off? How? Verifiy through statically evidence/hypothesis testing. If not verified by turning on/off, identify as a suspected root cause.

Section 5 - Permanent Corrective Action:

Note: The form provides fields for documentation of a single root cause verification. If additional root causes have been identified, "Copy" rows 37-40 and "Insert Cut Cells" to create additional fields.

- 1) Corrective Action for Why Made: Identify permanent corrective action(s) planned to address the root cause.
- 2) Corrective Action for Why Shipped: Identify permanent corrective action(s) planned to address the root cause.

Section 6 - Verification:

- 1) Has the issue been turned on and off? How? Verification through statical evidence / hypothesis testing. Verification of corrective action for each why made and why shipped is required.
- 2) Corrective Action Owner Name/Phone Number/Email Address: Contact information for the individual responsible for implementing the corrective action.
- 3) Target Completion Date: Date by which all of the corrective actions for this root cause will be implemented.
- 4) Build Date for Certified Material: "Clean point" at which all material is certified as good.
- 5) How Will New Parts Be Identified? Color, size, location, and content of label or hand-written identification on each part and/or container of certified material.

Section 7 - Prevention:

- 1) How will this issue be avoided in the future? Identify systematic changes that will be put in place to prevent the issue from occurring again. If applicable, standardize the improvements in other "at risk" areas.
- 2) Other Facilities or Platforms at Risk? Identify name, part#, corrective action owner for follow up & due date for any Other facility or platform that may be at risk for the same issue. Enter "N/A" if the issue is isolated. "Copy" rows 54-57 and "Insert Cut Cells" to create additional fields as necessary.
- 3) Has the necessary documentation been updated? Identify the documents that must be updated to include the permanent corrective actions, along with who is responsible for the updates and the dates by which they will be updated. Enter "N/A" if the document does not have to be updated.

Section 8 - Closure:

1) Closure Statement: "Close issue..." (Begin with words noted in "" followed by the rationale for closure.)