



**Pacific Gas and
Electric Company**

Electric T&D Bulletin

Title: Howard PM Transformer Special Inspection – Energized

Check all appropriate boxes

<input type="checkbox"/> SAFETY ALERT	<input type="checkbox"/> GAS	<input checked="" type="checkbox"/> DISTRIBUTION	<input type="checkbox"/> SUBSTATION ENGR.
<input checked="" type="checkbox"/> MANDATORY COMPLIANCE	<input checked="" type="checkbox"/> ELECTRIC	<input type="checkbox"/> TRANSMISSION	<input type="checkbox"/> TRANS./SUB. M&C
<input type="checkbox"/> RECOMMENDED ACTIONS	<input type="checkbox"/> ESTIMATING	<input type="checkbox"/> OPERATIONS	<input type="checkbox"/> APPLICANT DESIGNER /
<input type="checkbox"/> INFORMATIONAL/CLARIFICATION	<input type="checkbox"/> MAPPING	<input type="checkbox"/> SERVICE	<input type="checkbox"/> CONSTRUCTION

Purpose: The purpose of this bulletin is to provide inspection and documentation instructions for certain Howard Industries (HI) Pad-mount Transformers that are in service. This bulletin will remain in effect until such time that all in-service transformers have been inspected and determined to be functioning properly.

Target Audience for Implementation: Compliance Department, Emeryville Repair Facility and Local Headquarters Clerical

Situation

Primary bushing wells on some dead-front pad-mount transformers manufactured by Howard Industries have been cracking and leaking oil, see Electric T&D Bulletin 2008-04 for further information.

In-Service Inspection Requirements: As energized transformer locations are identified different groups will be assembled for inspection. Each group will be on its own Howard Industries Pad Mount Transformers Spreadsheet (Spreadsheet) and will be numbered – Group 01, Group 02, etc

By the requested date, inspect the group of transformers for the following:

1. Verify the following information provided in the Spreadsheet is correct. If not, document the correct information on the Spreadsheet.
 - Serial number
 - Address
2. Check for signs of oil leaking
 - Puddle of oil, see Figure 01:
Check the appropriate box on the Spreadsheet. Complete an MPR requesting Emeryville field personnel complete an in-service repair. Generate at the local headquarters an EC notification with required end date as per local procedure. Notification is a Priority G and work type code is 541. Use Object Part TRPM; Condition Found LEAK; Activity Code REPA. The following details should be provided in the comments: Howard Industries Transformer, a brief description of findings, Emeryville field personnel requested and the MPR number.



Figure 01

Puddle of oil from bushing well leak on a Style DF in materials stock

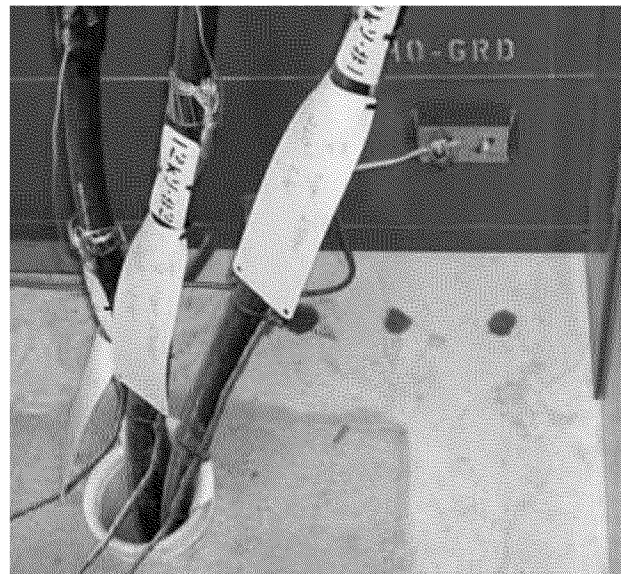


Figure 02

Oil drops on pad from seeping bushing well

- Seeping from around bushings, see Figure 02:
Check the appropriate box on the Spreadsheet. Complete an MPR requesting Emeryville field personnel complete an in-service repair. Generate at the local headquarter an EC notification with required end date as per local procedure. Notification is a Priority G and work type code is 541. Use Object Part TRPM; Condition Found LEAK; Activity Code REPA. The following details should be provided in the comments: Howard Industries Transformer, a brief description of findings, Emeryville field personnel requested and the MPR number.
- 3. Check status of oil sight gauge
 - Oil line visible or ball floating:
Indicate finding on Spreadsheet. No additional documentation is required.
 - Ball at bottom and no oil visible in sight glass:
Check the appropriate box on the Spreadsheet. Complete an MPR requesting Emeryville field personnel complete an in-service repair. Generate at the local headquarter an EC Notification with required end date as per local procedure. Notification is a Priority G and work type code is 541. Use Object Part TRPM; Condition Found LOIL; Activity Code REPA. The following details should be provided in the comments: Howard Industries Transformer, a brief description of findings, Emeryville field personnel requested and the MPR number.
- 4. Check elbows and cables – report if any evidence of swelling from oil contamination.
 - Normal:
Indicate finding on Spreadsheet. No additional documentation is required.
 - Swelling/damaged:
Check the appropriate box on the Spreadsheet. Generate at the local headquarter an EC Notification with required end date as per local procedure.

Notification is a Priority G and work type code is 541. Use Object Part ELDB or ELLB for an Elbow or COND for Conductor/Cable; Condition Found SWOL or BROK; Activity Code REPL for Elbows and REPA for Conductor. The following details should be provided in the comments: Howard Industries Transformer and a brief description of findings.

5. Enter date of inspection on the spreadsheet.

Caution: Do not operate internal devices (bayonets, switches, breakers, etc.) on transformers that do not have oil showing in the sight glass.

Repeat Inspections: Repeat inspections may be required; if so a revised Spreadsheet will be issued.

Documentation Requirements

- Spreadsheet (Attachment 1)
- MPR (<http://mpr/mpr/mpr>)
- UG EC Notification (Attachment 2)

All abnormal conditions identified at a location must be reported on one EC Notification. When completing the Notification, select all Object Parts that apply and number 1, 2, 3, etc., with 1 being the highest priority equipment item. The corresponding Damage and Activity codes should be numbered to match the Object Parts. EC Notifications should have short durations and should be entered at the local headquarter.

After creating the notification, release it for work and generate an order. The EC Notification number and the order number must be recorded in the Spreadsheet.

Compliance Supervisor or designee will work with their local Asset Strategist, local Work and Resource Coordinator and Emeryville to coordinate completion of the repair.

Accounting Information

- Inspections - Labor for conducting the inspections should be charged to order 8088397. This order is linked to a new MWC BF planning order, 5015089.
- Equipment Repairs - Create an EC Notification and generate an order for each location using work type code 541. Emeryville and Division labor is charged to that order.

Approved by:

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Date: April 14, 2008

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