



Electrical Safety Authority **Distributor Safety Bulletin**

HAZARD AWARENESS

Electrical Distribution Safety

HAZARD DESCRIPTION – K-Line Polymer Insulators:

ESA has been made aware of K-Line Bulletin B06-01 and B06-03 addressing K-Line Polymer Insulators. See attached information for the Bulletins.

ATTACHED INFORMATION:

Bulletin B06-01 and B06-03 have been attached for LDCs.

ADDITIONAL INFORMATION:

If you can provide additional information on this Bulletin or any other Utility issue, please contact ESA to share your experiences.

Additional information requests, including report(s) and follow-up information, may be directed to ESA. Please be prepared to quote Bulletin “DSB-01/06”.



TO: K-Line Insulator Customers

SUBJECT: K-Line Polymer Insulators on Switches

1.0 Background

There have been very few incidents with some K-Line polymer insulators failing immediately or very shortly after energization. After K-Line's investigation K-Line discovered that a few glass fibers in the fiberglass rod had been intermittently contaminated with graphite during the manufacturing process of the glass fibers. The fiberglass rod manufacturer is a worldwide supplier of this product to most insulator manufacturers and has verified that this contamination was very infrequent and that the field failures have been 0.03%. All defective fiberglass rods have failed immediately or shortly after energization. There have not been any reports of this type of failures occurring some longer time after energization.

2.0 Corrective Actions

- 2.1** The fiberglass rod manufacturer has ceased purchasing from the company that made the contaminated glass fiber and has implemented provisions to this company to effectively prevent this from re-occurring.
- 2.2** K-Line has quarantined all existing inventory of fiberglass rods and insulators that may have this suspected contaminated fiber.

3.0 Recommendations

- 3.1** Switch manufacturers should check their existing inventory and their client's inventory for any K-Line insulators that are from the suspected batches. The suspected batches are listed in the attachment by K-Line's Catalogue Number ("KL...") and Lot Number (6-digit, "YYMMDD"). This information is stamped on the end fitting of the insulator or marked on the packaging box.
 - 3.2** K-Line requests that switch manufacturers complete the attached list noting the in-stock quantity of all unused insulators of the types and dates shown. K-Line would like to have the completed list returned to K-Line Insulators Limited indicating the customer name, insulator catalogue number, lot number, and the quantity in stock. The insulators identified on this list should be immediately placed in quarantine. Upon receipt of the attached completed list KLI will then provide further direction. **PLEASE DO NOT RETURN ANY UNITS UNTIL INSTRUCTED TO DO SO.**
 - 3.3** K-Line recommends that in-line switch insulators that have been installed and energized with a potential difference across the insulator (e.g., phase-to-ground voltage) should not be removed from service. These insulators have been verified by the application of a high voltage during the installation. Insulators that are faulty will fail immediately upon the application of a high voltage. The actual number of faulty insulators is very low since the problem was intermittent during the production of the fiberglass rod.
 - 3.4** K-Line recommends that in-line switch insulators that have been installed and not energized with a potential difference across the insulator (e.g., phase-to-ground voltage) should be tested. One method to test the insulator while in service is to mechanically secure the switch installation, and then ground one end of the switch and energize the other end.
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3.5 K-Line recommends that post type switch insulators that have been energized should not be removed from service. These insulators have been verified by the application of a high voltage during the installation.

Note: Any insulators with Lot Numbers that are not on the List are not suspect.



| | |
|-------------|--------|
| KL15ASFIR | 050916 |
| KL28SFIR | 050429 |
| KL28SFIR | 051025 |
| KL35SFIRN | 050316 |
| KL35STTN | 050125 |
| KL35STTN | 050215 |
| KL35STTN | 050301 |
| KL46SFIR | 050217 |
| KL28SFS | 050405 |
| KL35SFS | 041125 |
| KL35SFS | 050714 |
| KL28SAMPYE | 050401 |
| KL28SAMPYL | 050127 |
| KL28SAMPYL | 050201 |
| KL28SAMPYL | 050217 |
| KL28SAMPYL | 050308 |
| KL28SAMPYL | 050330 |
| KL28SAMPYL | 050525 |
| KL28SAMPYL | 050617 |
| KL28SAMPYL | 050714 |
| KL28SAMPYL | 050825 |
| KL28SAMPYL | 051006 |
| KL28SAMPYS | 050411 |
| KL28SAMPYS | 050613 |
| KL28SAMPYS | 050729 |
| KL28SAMPYS | 050824 |
| KL28SAMPYS | 051025 |
| KL28SAMPYXS | 050128 |
| KL28SAMPYXS | 050210 |
| KL28SAMPYXS | 050617 |
| KL28SAMPYXS | 051025 |

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|---------------|--------|
| KL35SMAMPYAE | 050610 |
| KL35SMAMPYAL | 041126 |
| KL35SMAMPYAL | 050208 |
| KL35SMAMPYAL | 050307 |
| KL35SMAMPYAL | 050520 |
| KL35SMAMPYAL | 050524 |
| KL35SMAMPYAS | 050114 |
| KL35SMAMPYAS | 050128 |
| KL35SMAMPYAS | 050208 |
| KL35SMAMPYAS | 050309 |
| KL35SMAMPYAS | 050330 |
| KL35SMAMPYAS | 050331 |
| KL35SMAMPYAS | 050526 |
| KL35SMAMPYAS | 050613 |
| KL35SMAMPYAXS | 041213 |
| KL35SMAMPYAXS | 050118 |
| KL35SMAMPYAXS | 050209 |
| KL35SMAMPYAXS | 050526 |
| KL69HAMPY16L | 050928 |
| KL69HAMPY16S | 050825 |



TO: K-Line Insulator Customers

SUBJECT: K-Line Polymer Insulators

1.0 Background

There have been very few incidents with some K-Line polymer insulators failing immediately or very shortly after energization. After K-Line's investigation K-Line discovered that a few glass fibers in the fiberglass rod had been intermittently contaminated with graphite during the manufacturing process of the glass fibers. The fiberglass rod manufacturer is a worldwide supplier of this product to most insulator manufacturers and has verified that this contamination was very infrequent and that the field failures have been 0.03%. All defective fiberglass rods have failed immediately or shortly after energization. There have not been any reports of this type of failures occurring some longer time after energization.

2.0 Corrective Actions

- 2.1** The fiberglass rod manufacturer has ceased purchasing from the company that made the contaminated glass fiber and has implemented provisions to this company to effectively prevent this from re-occurring.
- 2.2** K-Line has quarantined all existing inventory of fiberglass rods and insulators that may have this suspected contaminated fiber.

3.0 Recommendations

- 3.1** Customers should check their existing inventory for any K-Line insulators (dead-end/suspension, line post, station post, switch, or riser support) that are from the suspected batches. The suspected batches are listed in the attachment by K-Line's Catalogue Number ("KL...") and Lot Number (6-digit, "YYMMDD"). This information is stamped on the end fitting of the insulator and marked on the packaging box.
- 3.2** K-Line requests that customers complete the attached list noting the in-stock quantity of all unused insulators of the types and dates shown. K-Line would like to have the completed list returned to Grafton Utility Supply Limited indicating the customer name, insulator catalogue number, lot number, and the quantity in stock. The insulators identified on this list should be immediately placed in quarantine. Upon receipt of the attached completed list KLI will then provide further direction. **PLEASE DO NOT RETURN ANY UNITS UNTIL INSTRUCTED TO DO SO.**
- 3.3** K-Line recommends that the insulators that have been installed and energized should not be removed from service. These insulators have been verified by the application of a high voltage during the installation. Insulators that are faulty will fail immediately upon the application of a high voltage. The actual number of faulty insulators is very low since the problem was intermittent during the production of the fiberglass rod.

Note: Any insulators with Lot Numbers that are not on the List are not suspect and insulators that are in-service are not suspect.



Customer _____

| CLI Cat. # | CLI Lot # | Qty in Stock |
|------------|-----------|--------------|
| KL15ARSIUD | 050726 | |
| KL15ASFIR | 050826 | |
| KL15ASFIR | 050916 | |
| | | |
| KL28SRSIU | 050307 | |
| KL28SRSIUX | 050214 | |
| KL28SRSIUX | 050307 | |
| KL28SRSIUX | 050317 | |
| KL28SRSIUX | 050824 | |
| | | |
| KL28SX11S | 050413 | |
| KL28SX11S | 050512 | |
| KL28SX11S | 050712 | |
| KL28SX11S | 050719 | |
| KL28SX24S | 050321 | |
| KL28SX24S | 050722 | |
| KL28SX24S | 051018 | |
| | | |
| KL35SCTM | 041216 | |
| KL35SCTM | 050206 | |
| KL35SCTM | 050208 | |
| KL35SCTM | 050221 | |
| KL35SCTM | 050318 | |
| KL35SCTM | 050516 | |
| KL35SCTM | 050601 | |
| KL35SCTM | 050602 | |
| KL35SCTM | 050629 | |
| | | |

| CLI Cat. # | CLI Lot # | Qty in Stock |
|-----------------|-----------|--------------|
| KL46SCT | 041125 | |
| KL46SCT | 041126 | |
| KL46SCT | 041129 | |
| KL46SCT | 041203 | |
| KL46SCT | 050310 | |
| KL46SCT | 050406 | |
| KL46SRSIU | 050207 | |
| KL46SRSIUD | 041210 | |
| KL46SRSIUD | 050211 | |
| KL46SRSIUD | 050421 | |
| KL46SRSIUX | 041210 | |
| KL46SRSIUX | 041215 | |
| KL46SRSIUX | 050129 | |
| KL46SRSIUX | 050331 | |
| KL46SWIL01 | 041122 | |
| KL46SWIL01 | 050204 | |
| | | |
| KL69HC1T11 6 | 050831 | |
| KL161HBY40 | 050902 | |
| | | |



Customer

| CLI Cat. # | CLI Lot # | Qty in Stock |
|------------|-----------|--------------|
| | | |
| KL15SK | 041214 | |
| KL15SK | 041216 | |
| KL15SK | 041223 | |
| KL15SK | 050202 | |
| KL15SK | 050203 | |
| KL15SK4 | 050128 | |
| | | |
| KL28SK | 050329 | |
| KL28SV | 050209 | |
| KL28SV | 050405 | |
| | | |
| KL35SK | 041124 | |
| KL35SK | 050103 | |
| KL35SK | 050110 | |
| KL35SK | 050111 | |
| KL35SK | 050113 | |
| KL35SH | 050208 | |
| KL35SK | 050214 | |
| KL35SK | 050215 | |
| KL35SK | 050217 | |
| KL35SK | 050302 | |
| KL35SK | 050322 | |
| KL35SH | 050330 | |
| KL35SV | 050401 | |
| KL35SK | 050404 | |
| KL35SK | 050405 | |
| KL35SK | 050412 | |
| KL35SK | 050413 | |
| KL35SK | 050414 | |
| KL35SK | 050425 | |
| KL35SK | 050426 | |
| KL35SK | 050427 | |
| KL35SK | 050524 | |
| KL35SK | 050525 | |
| KL35SK | 050623 | |
| KL35SK | 050627 | |
| KL35SK | 050715 | |
| | | |

| CLI Cat. # | CLI Lot # | Qty in Stock |
|------------|-----------|--------------|
| | | |
| KL35SPT2 | 041129 | |
| KL35SPT2 | 050106 | |
| KL46SH | 050117 | |
| KL46SH | 050118 | |
| KL46SH | 050121 | |
| KL46SH | 050314 | |
| KL46SH | 050623 | |
| KL46SH | 050629 | |
| KL46SH | 050815 | |
| KL46SK | 041125 | |
| KL46SK | 041208 | |
| KL46SK | 041210 | |
| KL46SK | 050218 | |
| KL46SK | 050307 | |
| KL46SK | 050308 | |
| KL46SK | 050309 | |
| KL46SK | 050324 | |
| KL46SK | 050511 | |
| KL46SK | 050524 | |
| KL46SK | 050525 | |
| KL46SK | 050526 | |
| KL46SK | 050630 | |
| KL46SK | 050728 | |
| KL46SV | 041126 | |
| KL46SV | 050104 | |
| KL46SV | 050105 | |
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