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X301

June 26, 1995

Exide Electronics NAS
3100 Spring Forest Road
Raleigh, NC 27604
Attn. Doug Nowatka

Subject: AKR 75 and AKR 100 Auxiliary Switch Pushrod

Doug,

Following is the root cause for the pushrod failure.

Statement of Problem: Exide Electronics had experienced a broken Auxiliary Switch Pushrod at Atlanta. Similar but less severe problems were noted at the TOF in Raleigh.

Background information. The pushrod was over traveling during opening causing the metal end (yoke) of the pushrod to strike the Auxiliary switch mounting support.

Some pushrods barely strike the support while others seem to hit hard enough to deform the yoke and possibly damage the composition center of the rod. A known three pushrods have broken throughout the entire shipped product, Exide has had two.

Root Cause. The pushrod part number 193A1104G3 originally had an overall length of 8.06" for use with the original GE SB-12 auxiliary switch. This dimension supported the primary arcing contact measurement requirement of 0"- to 1/4" as shown in instruction book GEK-64460A page 40 item 7.3.2.

The drawing was revised to a length of 7.81 for the Electros witch replacement of the SB-12 switch. This dimension has now been standardized at 8.125 and the primary arcing contact gap can be 0" to 1/2" due to the wiping nature of the Electros witch verses the make/break action of the SB-12 switch.

Additional comments: The instruction book arcing contact gap dimension of 0" to 1/4" was part of the original GE SB-12 switch which is a make/break contact while the newer Electros witch is a sliding contact switch with about 60 degrees of switch shaft rotation maintaining contact. The Electros witch adjustment is much more flexible allowing a dimension of 0"-1/2" on the primary arcing gap. Instruction book GEK-64460A will be updated at the next revision.

As of now, nearly any pushrod length which does not strike the auxiliary switch mounting bracket and allows the primary arcing contact to be adjusted to 0" to 1/2" is satisfactory. The initial set dimension is now 8.125" for the hole to hole centerline of pushrod 193A1104G3.

Conclusion: At the present time, there are seven (7) locations which have not had the pushrods changed. These sites are in warehouses and are not currently in active startup. GE and Exide have been negotiating with the warehouses for access to the seven sites but no resolve as of 6/26/95 on if we are going into the warehouses or waiting for the sites to become active for pushrod change out. Please refer to the attached spreadsheet for details.

Please call Don Lesnet, Jim Jackson or Bob Turton with any questions concerning the pushrod root cause analysis.

Sincerely,

Don Lesnet

cc: Bob Turton
Jim Jackson