STORAGE BATTERIES
LEAD-ACID, ENCLOSED TYPE
REPLACEMENT PARTS AND PROCEDURES

CONTENTS PAGE

1. GENERAL 1

2. REPLACEMENT PARTS 1

Replaceable Parts 1

Replacement Criteria for Cells . . 1

Information Required for Ordering Parts 1

3. REPLACEMENT PROCEDURES 2

List of Tools and Materials . . . 2

Replacing Broken Seal Nuts . . . 2

Replacing Connector Bolts 2

Replacing Level Indicator Floats . . 2

Replacing Antiexplosion Features . 2

Replacing Spray Caps 2

1. GENERAL

1.01 This section covers the information necessary for the ordering and replacing of parts of enclosed-type, lead-acid storage cells.

1.02 This section is being reissued to revise the reference to Section 157-601-701, to add reference to Section 157-601-703, to include information on replacement of spray caps, and to delete procedures for replacing electrolyte. Since this is a general revision, change arrows are not included. This reissue does not affect Equipment Test List.

1.03 See Section 157-601-701 for lead-acid cell requirements and procedures, precautions against explosions and exposure to electrolyte, and proper neutralizing agents.

1.04 Take the necessary precautions to ensure that service is not interrupted due to maintenance work.

2. REPLACEMENT PARTS

2.01 ***Replaceable Parts:*** The parts usually considered replaceable are the external details, such as level indicators, funnels, antiexplosion features, spray caps, seal nuts for terminal posts, and connector bolts. Field replacement of internal parts or electrolyte of enclosed type cells is not recommended.

2.02 ***Replacement Criteria for Cells:*** Refer to Section 157-601-701 for replacement criteria of lead-acid cells and batteries in plastic or hard rubber containers and for the procedure to temporarily repair cracks in plastic jars until replacement can be obtained. See Section 157-601-703 for trouble conditions that may require replacement. Refer to Section 157-601-201 for installation procedures when replacing cells or batteries.

2.03 ***Information Required for Ordering Parts:*** When ordering any battery part for replacement, give the following information:

(a) Number of part; see Section 157-621-101.

(b) Cell manufacturer and factory designation; see Section 157-601-701.

(c) KS and list number of cell

(d) Cell serial number or date of manufacture

(e) Rated capacity of cell in ampere-hours.

3. REPLACEMENT PROCEDURES

Caution: Do not expose or clean plastic containers with petrolatum or solvents such as kerosene, gasoline, or petroleum spirits which is the solvent in most cleaning compounds as well as the thinner in most waxes and polishes. Petroleum spirits and the preceding solvents seek out points of residual stress, causing cracks, crazing, and eventual failure. Do not use commercial detergents such as Igepal CO-630 on plastic containers as this can lead to crazing or cracking of the jars.

3.001 ***List of Tools and Materials:***

CODE OR SPEC NO.	DESCRIPTION
—	Soda, Table (bicarbonate)
—	Clamp, C, obtain locally
KS-14666	Cloth, Cleaning
R-3266	Compound, NO-OX-ID A
—	Nail Set, obtain locally
—	Sandpaper, 4/0, Commercial
—	3-inch C Screwdriver
—	Compound, Battery Sealing Battery Manufacturer's Type

Note: Equivalents may be substituted.

3.01 ***Replacement of Seal Nut:*** See Figure "POST SEALS" in Section 157-621-101. Remove ***seal nut*** and clean the exposed surfaces of the terminal post and the cell cover. Neutralize all surfaces. The neutralizing agent should not be permitted to enter the cell. Scrape or sandpaper post ***contact*** area to a bright finish. Do not scrape intercell connectors. Coat all of the exposed terminal post immediately with NO-OX-ID A compound. Where a gasket is used, replace with a new gasket. Tighten nut with appropriate wrench or spanner. Lead nuts may be set in place with a nail set. Wipe off excess compound and neutralize all exposed surfaces. Nuts of the type that are burned to the terminal post should be replaced only with assistance of the battery manufacturers' local representative.

3.02 ***Replacement of Connector Bolts:*** When changing a ***connector bolt,*** be sure that service is not interrupted. In some cases, after cleaning and neutralizing as much as feasible, the connection can be held together with a C clamp while the old bolt is removed and the new bolt inserted and tightened. Where it is possible to open the connection, contact areas of intercell connectors and terminal details should be wiped or brushed with a soft brush. Neutralize all parts and dry contact surfaces (see Section 157-601-702). Coat contact surfaces immediately with NO-OX-ID A compound (see Section 157-601-701). Reassemble using the new bolt. Wipe off excess compound.

3.03 ***Replacing Level Indicator Floats: To replace level indicator floats,*** remove the indicator well by turning either the well or the packing gland at the top of the well counterclockwise. With some designs, a plastic disc or other retainer must be pried out of the bottom of the well before the old float can be removed and the new one inserted. Any broken glass or other debris in the bottom of the well should be removed. Replace retainer, if any, and return well to position. Float covers, if any, are slipped into position.

3.04 ***Replacement of Antiexplosion Features:*** If ***antiexplosion features*** become damaged, replace them as soon as possible. Domes on some Gould cells may be removed by loosening the screw stud at the top of the dome. When replacing this type, the head of the stud should be resealed to the ceramic with battery sealing compound and the soft rubber gasket, new one if necessary, installed under the base of the dome. On others, the dome is turned counterclockwise. On many current designs, the domes are cemented in place. Contact the battery manufacturer's local representative if cemented domes need replacing. The explosion-proof vents used on small cells are either bayonet or screw type. They are removed by turning counterclockwise.

3.05 ***Replacement of Spray Caps: Spray caps*** should be replaced if damaged. Spray caps are generally of two types. One type is similar to the spray caps used on automotive batteries. These have a vent hole in the top and screw in place. The other type is made of flexible rubber with a vent hole and snaps in place on top of the vent tube. This type of spray cap is found on Exide cells.