1-8 GASES EMISSION

LEAD SEALED ACID RECHARGEABLE BATTERIES PRODUCE HYDROGEN AND OXYGEN GASES INTERNALLY DURING CHARGING AND OVERCHARGING. THESE GASES ARE RELEASED IN AN EXPLOSIVE MIXTURE FROM CONVENTIONAL LEADS SEALED ACID BATTERIES AND THEREFORE MUST NO T BE ALLOWED TO ACCUMULATE DIN A GAS-TIGHT CONTAINER.
AN EXPLOSION COULD OCCUR IF A SPARK WERE INTRODUCED. THE UNION BATTERY, HOWEVER, OPERATES ON 100% RECOMBINATION OF THE OXYGEN GAS PRODUCED AT RECOMMENDED RATES OF CHARGING AND OVERCHARGING.
AND SO THERE IS NO OXYGEN OUT GASSING. DURING NORMAL OPERATION, SOME HYDROGEN GAS AND ALSO SOME CARBON DIOXIDE GAS ARE GIVEN OFF. THE HYDROGEN OUT GASSING IS ESSENTIAL WITH EACH CYCLE TO ENSURE CONTINUED INTERNAL CHEMICAL BALANCE. THE PURE-LEAD GRID CONSTRUCTION OF THE UNION BATTERY MINIMIZES THE AMOUNT OF CARBON DIOXIDE IS PRODUCED BY OXIDATION OF ORGANIC COMPOUNDS IN THE CELL.

THE MINUTE QUANTITIES OF GASES WHICH ARE RELEASE FROM BATTERY WITH RECOMMENDED RATES OF CHARGE AND OVERCHARGE WILL NORMALLY DISSIPATE RAPIDLY INTO THE ATMOSPHERE.
HYDROGEN GAS I S DIFFICULT OT CONTAIN IN ANYTHING BUT A METAL OR GLASS ENCLOSURE; I.E., IT CAN PERMEATE A PLASTIC CONTAINER AT A RELATIVELY RAPID RATE. BECAUSE OF THE CHARACTERISTICS OF GASES AND THE RELATIVE DIFFICULTY IN CONTAINING THEM. MOST APPLICATIONS WILL ALLOW FOR THEIR RELEASE INTO THE ATMOSPHERE.

THE UNION BATTERY SHOULD NEVER BE OPERATED IN A GAS-TIGHT CONTAINER.
THE CELLS SHOULD NEVER BE TOTALLY ENCASED IN A POTTING COMPOUND SINCE THIS ENCASED IN A POTTING COMPOUND SINCE THIS PREVENTS THE PROPER OPERATION OF THE VENTING MECHANISM AND FREE RELEASE OF GAS.
FURTHERMORE, CONSIDERABLE PRESSURE CAN BUILD UP IN A GAS-TIGHT CONTAINER.
THIS CAN OCCUR DURING STORAGE BECAUSE OF THE CONTINUOUS GENERATION OF CARBON DIOXIDE GAS. SUCH PRESSURE IS FURTHER COMPOUNDED DURING CHARGING BY THE GENERATION OF HYDROGEN.