

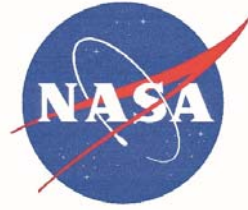


**JSC 63322 Rev B:
Packaging Requirements for Launch, On-
Orbit Storage, and Disposal of Batteries**
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JSC 63322 Requirements Overview

- Isolate batteries and cells and prevent movement during launch and stowage
- Button cells are individually bagged for launch and stowage
 - For disposal either a single cell per bag or tape both terminal
- Alkaline cells in general are the most vulnerable to leakage and shorting
 - Launching of alkaline are done in bandoliers with taping and bagging for the pantry
 - Disposal should be in original packaging if available, otherwise tape the negative terminal and place in a single plastic (Ziploc) bag
- Li-ion and others (NiMH, NiCd, AgZn) should be disposed with the hardware in most cases
 - For units with extra batteries (e.g. cameras) the battery can be placed in a single plastic bag for disposal
 - Taping of terminals is required if the battery terminals are susceptible to external short which is not likely for COTS batteries
- Non-rechargeable batteries are individually bagged

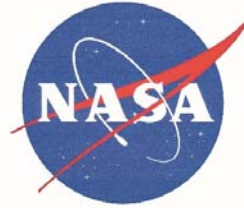


Changes from Rev A to Rev B

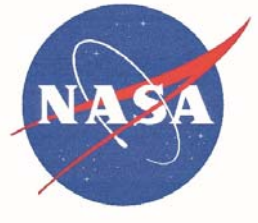
- Modified wording for clarification and to be in line with current practices
- Added additional taping options
 - Kapton tape or alternative non-conductive and non-reactive tape to the electrolyte
 - Crew generally prefers to use Grey Tape over Kapton
- Bagging of batteries for disposal
 - No visible damage or leakage, reduced bag requirements from 2 to 1
- Updating UHR for alkaline batteries to be inline with JSC 63322
 - OCAD 122947 is referenced and is being updated



Draft OCAD Wording



- The crew will be trained and instructed to execute the following:
- The crew will utilize new alkaline batteries from the ISS pantry as part of the end item initial setup or battery change out steps.
- Used Alkaline batteries (P/N 528-41350-2, 3, 4, 5, &10; Corresponding size AAA, AA, C, D, & AAAA) with no obvious electrolyte leakage, will have (at minimum) their negative terminal covered with tape and inserted into a single Ziplock bag. This configuration is applicable for return, or disposal into dry trash.
- Used rectangular 9V alkaline batteries (P/N 528-41350-66) must be taped across both terminals, and inserted into a single Ziplock bag for disposal into dry trash.
- For leaking alkaline batteries or cells, the crew will utilize the “EMER-1b 4.2 Hazardous Release Cleanup” procedure to contain the hazardous material from leaking alkaline batteries. Leaking alkaline batteries (tox 2) shall be placed in two polyethylene ziplock bags (not Kynar) prior to disposal in dry trash. Crew should use gloves and goggles during disposal operations. The crew should immediately clean their hands if they have come into contact with electrolyte.



Questions?