Environmental Standard Operating Procedures (ESOP)					
Lithium Battery Storage (LIT)					
Environmental Affairs (EA):	Revised: 12 July 2021				
Hazardous Waste Management					
Branch (HWMB) (760) 830-7244					

Subj: HAZARDOUS WASTE LIHIUM BATTERY STORAGE

Ref: (a) CCO 5090.5D, Integrated Contingency and Operations Plan

(b) Hazardous Waste Operations Manual, MCAGCC

- 1. <u>Purpose</u>. This document provides environmental protection guidelines for the proper storage of lithium batteries.
- 2. Application. This guidance applies to those personnel who are involved with handling, storing lithium batteries aboard Marine Air Ground Task Force Training Command (MAGTFTC), Marine Corps Air Ground Combat Center (MCAGCC) Twentynine Palms. For further references to MAGTFTC, MCAGCC in this document, the term installation will be used.
- 3. <u>Procedures</u>. The storage and handling of lithium batteries must be properly managed to ensure that uncontrolled release of toxic fumes, fire or explosion does not occur. Uncontrolled releases of toxic gas could result in serious danger to human health and the environment as well as the unnecessary creation of Hazardous Waste. To prevent uncontrolled releases of Hazardous Materials (HM), HM must be stored in such a way that will prevent inadvertent contact or mixing of dissimilar materials. HM must be segregated and stored in authorized containers or storage lockers that are compatible with the chemical properties of the materials. Units are responsible for the safe handling of mission essential HM, including the procurement of appropriate HM storage lockers.
- 4. Operational Controls. The following procedures apply for the storage of Lithium Batteries.
- a. Ensure Safety Data Sheets are readily available and current for all types of Lithium batteries used or stored within the work site.
- b. Ensure all applicable policies and procedures are implemented and adhered to within the storage site.
- c. Ensure storage facilities are approved by the installation's Safety and Fire Department. Approval letters must be maintained by the command Safety Officer (or representatives).
- d. Ensure lithium batteries are stored separate from any other hazardous material or types of batteries.
- e. Battery storage facility temperature must be maintained below 130 Degrees Fahrenheit.
- f. Thermometers will be placed within each battery storage facility or $\mbox{\it Area}$ to monitor the temperature.

Subj: HAZARDOUS WASTE LIHIUM BATTERY STORAGE

- g. Units shall inspect battery storage facilities and areas at least quarterly to access their serviceability. Request repairs via a work request to the Public Works Division.
- h. Signs shall be placed on all four sides of each battery storage facility or area. These signs shall prohibit open flames, eating, drinking and smoking,
- i. Each battery storage facility or area will be conspicuously marked to warn emergency service personnel of lithium battery contents on all 4 sides of the storage area.
- j. Lithium batteries should be inspected daily for evidence of leakage, excessive heat, or exposure to water. A written record shall be maintained of this task.
- $\ensuremath{k.}$ Lithium batteries will be stacked no more than three high and two inches apart.
- l. Accurate inventory of all lithium batteries must be maintained and posted inside the storage facility. This list is to be updated as fluctuations in quantities occur.
- 5. Documentation and Record Keeping. The following records must be maintained:
 - a. Safety Data Sheet's for all HM being stored.
 - b. Inspection records must be maintained for 3 years.
- 6. <u>Training</u>. All affected personnel must be trained in this document and the following:
 - a. General Environmental Awareness training.
 - b. Most current version of reference (b).
 - c. Globally Harmonized System training.
- 7. Emergency Preparedness and Response Procedures. Refer to reference (a).
- 8. <u>Inspection and Corrective Action</u>. The Environmental Compliance Coordinator (ECC) and HWMB shall designate personnel to perform operational and weekly inspections respectively. The Supervisor of HWMB has the overall responsibility to ensure that the mandated weekly inspection requirement are met. The ECC shall ensure deficiencies noted during the inspections are corrected immediately. Actions taken to correct each deficiency shall be recorded on the inspection sheet. Refer to reference (b), for inspection sheets and guidelines.

Hazardous Waste Lithium Batter	y Storage Inspection Checklist
Date:	Time:
Unit:	Work Center:
Inspector's Name:	Signature:

	Inspection Items	Yes	No	Comments
Adm	inistrative			
1.	Are SDS's available for all lithium			
	chemistry batteries being used or store?			
2.	Have unit personnel received appropriate			
	level of training?			
3.	Are training records maintained and			
	available for inspection?			
4.	Are lithium batteries stored in a			
	compatible manner IAW the manufacture's			
	SDS and NAVOSH incompatible Material			
	Chart?			
5.	Are good house-Keeping practices being			
	adhered to and employed within the lithium			
	battery storage area?			
6.	Is personnel protective equipment on			
	hand and serviceable? (eye protection,			
	chemical resistant gloves)			
7.	Are all lithium batteries stored within			
	shelf life?			
8.	Is a compatible (Class "D") fire			
	extinguishers available and functional?			
9.	Are all spill kits on hand and			
	serviceable?			
10.	Are eyewash station on hand and			
	serviceable and routinely inspected?			
11.	Does the command possess a current			
	Authorized user list (AUL)?			
12.	Does the command updates the AUL as new			
	materials are introduced into the			
	workplace?			
13.	Are Lithium Batteries inspected daily			
	using this checklist for evidence of			
	leakage, excessive heat, or exposure to			
	water with a log book of the daily			
	inspections maintain?			
14.	Are new batteries stored separately from			
	used batteries?			
15.	Are batteries stored 3 high and 2 inches a			
	part to permit air circulation and			
	cooling?			
16.	Is there a thermometer in the battery			
	storage facility or area?			
17.	Are lithium batteries kept away from			
	direct sunlight or water to prevent			
	exposure?			
18.	Are Lithium Storage building and areas			
	labeled "Lithium Batteries, No Eating, No			
	Smoking, No Drinking, and No Open Flames"?			

	and conspicuously marked (Lithium								
	Batteries etc.) on all 4 sides of the								
	facility, locker storage area etc.								
19.	Are Lithium batteries stored separately								
	from all other types or chemistries of								
	batteries and hazardous materials?								
20.	Is there an inventory of lithium batteries								
	posted in all lithium battery storage								
	areas and updated as inventories								
	fluctuates or changes?								
Addi	tional Comments:								
Corre	ective Action Taken:								
COLL	sective nection taken.								
Unit	Inspector:								
Name	:								
Signa	ature:								