

National Aeronautics and Space Administration

**Kennedy Space Center**  
Kennedy Space Center, FL 32899



April 25, 2013

Reply to Attn of: MEMORANDUM FOR RECORD #13-01

**SUBJECT:** Commercial Off The Shelf (COTS) Ground Support Equipment (GSE) and KSC Provided Equipment.

**SCENARIO:**

What safety documentation is required in Ground Safety Data Packages (GSDPs) for the use of COTS as GSE and KSC Provided Equipment?

**BACKGROUND:**

Many Payload Organizations purchase and use COTS equipment as their payload GSE, rather than build it themselves. In addition there is utilization of KSC Provided Equipment. The Ground Safety Review Panel (GSRP) will accept the use of this equipment without detailed safety analyses under the following conditions:

- a. For those items of hardware and software GSE purchased as COTS equipment, except hoisting and handling equipment subject to KNPR 8715.3 Chapter 20, and KSC Provided Equipment, the following shall be certified by the Payload Organization to the GSRP:
  1. The item will be used in the manner for which it is designed.
  2. The item's manufacturing inspection and maintenance requirements shall be met. If none exist, then the Payload Organization shall establish the inspection requirements, as needed.
  3. The Payload Organization will not modify the item in any way.
  4. The item is designed to a recognized National standard or approved by a recognized testing laboratory.
- b. Approval of COTS hardware and software designed to a non-United States standard shall be approved by the GSRP on a case-by-case basis.
- c. COTS modified by the supplier is acceptable provided it is part of the purchase process.

- d. In the event the COTS must be modified, the COTS shall be analyzed for compliance with the requirements of KNPR 8715.3 Chapter 20.
  1. This analysis shall only address those areas affected by the modification.
  2. The analysis shall be submitted to the GSRP for approval.

CONCLUSION:

If the Payload Organization can declare the conditions above in their GSDP, additional safety analyses will not be required.

If the item does not meet one or more of the conditions above, additional safety analysis data may be required at the discretion of the GSRP.

In both cases above, figures and operational descriptions identifying the use of the COTS GSE in the Payload ground operations will still be required.

APPLICABILITY:

This Memo is only applicable to COTS GSE and Payload Organization use of KSC Provide Equipment under the jurisdiction of the ISS Ground Safety Review Panel and does not apply to Mechanical GSE (MGSE).



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Acting Chairman, ISS Ground Safety Review Panel