

Material Handling & Control of Loads

MSC-PRO-37485

Revision 0

Effective Date: December 22, 2009

Topic: Safety and Health

**Approved for Public Release;
Further Dissemination Unlimited**

Material Handling & Control of Loads

1.0 PURPOSE

This procedure implements requirements derived from Title 29, Code of Federal Regulations, Part 1910, Subpart N, *Materials Handling and Storage*, Title 29, Code of Federal Regulations, Part 1926, Subpart H, *Materials Handling, Storage, Use, and Disposal*, and Title 10, Code of Federal Regulations, Part 851, *Worker Safety and Health Program*.

2.0 SCOPE

This Level 1 Management Control Procedure is applicable to Mission Support Contract (MSC) Team employees performing MSC scope of work.

NOTE 1: *The remaining sections of Subpart N are addressed in other Mission Support Alliance (MSA) documents:*

1. Section 177 “Servicing multi-piece and single piece rim wheels” is addressed in [MSC-RD-7769](#), “OSH Compliance”, and
2. Sections 178-184 are addressed in [DOE-RL 92-36](#) Hanford Hosting & Rigging Manual.

NOTE 2: *Material handling, control of loads, safe loading, unloading, handling, storing, and transportation of materials are addressed in [MSC-PRO-37561](#), Department of Transportation Federal Motor Carrier Requirements for Personnel.*

NOTE 3: *Identification and control of ergonomic hazards associated with manual material handling are addressed in [MSC-RD-8471](#), Ergonomics.*

3.0 IMPLEMENTATION

This document is effective upon publication.

4.0 REQUIREMENTS

This procedure implements requirements flowed down from the Mission Support Contract and US *Code of Federal Regulations*.

NOTE: *For the tables in this section under the requirement "type" column, “V” means verbatim and “I” means interpreted.*

#	Requirement	Type V or I	Source
1.	Where mechanical handling equipment is used, sufficient safe clearances shall be allowed for aisles, at loading docks, through doorways and wherever turns or passage must be made.	V	29CFR1910.176(a)

Material Handling & Control of Loads

#	Requirement	Type V or I	Source
2.	Aisles and passageways shall be kept clear and in good repair, with no obstruction across or in aisles that could create a hazard.	I	29CFR1910.176(a) & 29CFR1926.250.(a)(3)
3.	Storage of material shall not create a hazard. All materials stored in tiers shall be stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling or collapse.	I	29CFR1910.176(b) & 29CFR1926.250.(a)(1)
4.	When a difference in road or working levels exist, means such as ramps, blocking, or grading shall be used to ensure the safe movement of vehicles between the two levels.	V	29CFR1926.250.(a)(4)
5.	Structural steel, poles, pipe, bar stock, and other cylindrical materials, unless racked, shall be stacked and blocked so as to prevent spreading or tilting.	V	29CFR1926.250.(b)(9)
6.	<p>Goods shall be packed in good quality packagings, including intermediate bulk containers and large packagings, which shall be strong enough to withstand the shocks and loadings normally encountered during transport, including trans-shipment between transport units and between transport units and warehouses as well as any removal from a pallet or overpack for subsequent manual or mechanical handling.</p> <p>NOTE: <i>Items 6-9 apply to movement of flammable and combustible liquids as 10CFR851 Appendix A, Item 2 requires the adoption of NFPA 30 Section 2.3.9, which requires the adoption of the ST/SG/AC.10/1.</i></p>	V	ST/SG/AC.10/1 4.1.1
7.	Before being filled and handed over for transport, every packaging, including intermediate bulk containers and large packagings, shall be inspected to ensure that it is free from corrosion, contamination or other damage and every intermediate bulk containers shall be inspected with regard to the proper functioning of any service equipment.	V	ST/SG/AC.10/1 4.1.1.9
8.	Any packaging, which shows signs of reduced strength as compared with the approved design type shall no longer be used or shall be so reconditioned, that it is able to withstand the design type tests.	V	ST/SG/AC.10/1 4.1.1.9
9.	Any intermediate bulk container which shows signs of reduced strength as compared with the tested design type shall no longer be used or shall be so repaired or routinely maintained that it is able to withstand the design type tests.	V	ST/SG/AC.10/1 4.1.1.9

Material Handling & Control of Loads

5.0 PROCESS

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
Line Management	1.	Evaluate the need for additional resources prior to assigning work involving material movement (i.e., second person or material handling devices).
	2.	Ensure the Employee Job Task Analysis accurately reflects the weights and actions necessary to perform the assigned to material movement task.
	3.	Ensure assigned employee has the appropriate knowledge, skills, and abilities to operate material handling devices.
Employee	4.	Evaluate the condition of the material/load to be moved and whether integrity of the packaging is appropriate for the move.
	5.	Evaluate the stability of the surrounding objects (i.e., rolling stock is chocked, gas cylinders are chained, stacked boxes are not leaning) before removing the material.
	6.	Ensure the material/load is controlled (i.e., stable and secured) during all phases of the movement.
	7.	Ensure the travel path is free of obstructions and hazards that would jeopardize the safe movement of the material/load.
	8.	Ensure the material is unloaded and placed in a location that does not create new workplace hazards.
Line Management / Employee	9.	Refer to the following as aids for safe material movement.
		<ol style="list-style-type: none"> Manual Handling in the Manufacturing Industry, 1991 (Occupational Safety & Health Service of the Department of Labor – New Zealand) Application Guidelines for Ergonomic Assist and Safety Equipment (Material Handling Industry (MHI))

6.0 FORMS

No forms are associated with this document.

7.0 RECORD IDENTIFICATION

No records are generated due to this document.

Material Handling & Control of Loads

8.0 REFERENCES

8.1 Source References

Title 29, Code of Federal Regulations, Part 1910, Subpart N, *Materials Handling and Storage*.

Title 29, Code of Federal Regulations, Part 1926, Section 250, *Materials Handling, Storage, Use, and Disposal*.

Title 10, Code of Federal Regulations, Part 851, *Worker Safety and Health Program*, Appendix A, Item 2 *Fire Protection*.

NFPA 30, *Flammable and Combustible Liquids Code*, 2008

ST/SG/AC.10/1 United Nations *Recommendations on the Transport of Dangerous Goods – Model Regulations*, Volume 1, 15th Edition, 2007

8.2 Working References

[DOE-RL 92-36](#), *Hanford Hosting & Rigging Manual*

[MSC-RD-7769](#), *OSH Compliance*

[MSC-RD-8471](#), *Ergonomics*

[MSC-PRO-37561](#), *Department of Transportation Federal Motor Carrier Requirements for Personnel*