

# Jefferson Lab

Thomas Jefferson National Accelerator Facility

*Exploring the Nature of Matter*

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May 13, 2008

Mr. James A. Turi, Manager  
Thomas Jefferson Site Office  
12000 Jefferson Avenue, Suite 14  
Newport News, Virginia 23606

Subject: Corrective Action Plan in Response to the DOE Surveillance of Rigging and Material Handling at TJNAF

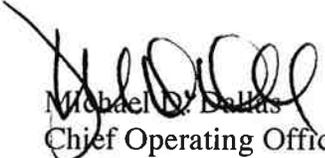
Dear Mr. Turi:

In response to your letter dated March 19, 2008, enclosed please find a corrective action plan for the recent DOE surveillance of rigging and material handling at TJNAF.

Each corrective action has been entered into the Automated Quality Information System – Corrective Action Tracking System (AQIS-CATS) with responsibilities and due dates as shown in the plan. The CATS event identification number is IA-2008-11.

If you have any questions regarding the attachment, please contact Bruce Lenzer at [blenzer@jlab.org](mailto:blenzer@jlab.org) or (757) 269-7586.

Sincerely,

  
Michael D. Dallas  
Chief Operating Officer  
JSA LLC JLab

Attachments:

cc: Bruce Lenzer, JSA LLC JLab  
Bob Doane, JSA LLC JLab ✓  
Bob May, JSA LLC JLab

## Corrective Action Plan

### TJSO Rigging & Material Handling Surveillance at TJNAF

#### Findings

FINDING ID	DESCRIPTION	CORRECTIVE ACTION PLAN
<b>FIND-P2-001</b>	The substitution of a substandard restraint (elastic strap versus factory metal strap) by the subcontractor is a violation of the OSHA standard for powered industrial trucks (29 CFR 1910.178 (q) (6)).	<ol style="list-style-type: none"> <li>1. CATS Item <a href="#">IA-2008-11-01</a> has been created to document progress to closure.</li> <li>2. SOTR's will be reminded in writing by 30 May 2008 of the current requirements in EH&amp;S Chapter 4145 and what was observed for this finding.</li> <li>3. The Subcontractor ISM Training Course conducted on 5-7-08 included guidance on inspection of rental material handling and man lift equipment.</li> <li>4. The Material Handling Safety Representative or the Material Handling Equipment Representative will assist the SOTR with inspection of equipment provided through service subcontracts.</li> </ol>
<b>FIND-P2-002</b>	Records being maintained for crane hook monthly inspections do not document the status of the crane hook in accordance with 29 CFR 1910.180 (d)(6) for mobile cranes.	ES&H manual Chapter 6140 Cranes and Hoists is under revision. Technical Appendix T5 Wire Rope Inspection Procedure will be changed to include the documentation of monthly hook inspection on the mobile crane. Expected completion date of Chapter 6140 revision is May 30, 2008. <a href="#">IA-2008-11-02</a>
<b>FIND-P2-003</b>	The e-mail process used by the Laboratory to satisfy monthly wire rope inspection records for overhead cranes does not meet the requirements of an inspector's signed and dated record of the specific wire rope being certified 29 CFR 1910.179.(m)(1).	ES&H manual Chapter 6140 Cranes and Hoists is under revision. Technical Appendix T5 Wire Rope Inspection Procedure will be changed to include the inspection and documentation of monthly rope inspection to include the date of the inspection, the signature of the person who performed the inspection and identification of the rope inspected. Expected completion date of Chapter 6140 revision is May 30, 2008. <a href="#">IA-2008-11-03</a>
<b>FIND-P2-004</b>	Modification of an overhead crane was not adequately tested (inspected) to ensure safety device functionality (missing audible or visual	<ol style="list-style-type: none"> <li>1. CATS Item <a href="#">IA-2008-11-01</a> has been created to track this issue to closure.</li> <li>2. Facilities Management &amp; Logistics (FM&amp;L) Work Order</li> </ol>

	warning signal), per 29 CFR 1910.179 (k)(1)(i)(d), and 29 CFR 1910.179 (i).	<p>#12933 has been written to install a strobe light on this monorail hoist with a remote control. Corrective action is expected by 30 June 2008.</p> <p>3. Crane inspection deficiencies are reviewed with the SOTR (Material Handling Equipment Representative) on a daily basis during inspections. Each deficiency is reviewed to determine if safe operation may continue with the deficiency found. If a crane or hoisting equipment is determined to be unsafe, the area manager is immediately notified and the crane is locked out by the Material Handling Equipment Representative or the hoisting equipment is physically removed from service.</p> <p>4. Crane inspection deficiencies that can allow continued safe operation of the crane or hoisting equipment will be jointly reviewed with a Quality Assurance Inspector. Corrective action will be accomplished through the FM&amp;L Work Orders or will be entered in the CAT System for tracking to completion, depending on the complexity of the corrective action.</p>
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Observations:

<b>OBSERVATION ID</b>	<b>DESCRIPTION</b>	<b>CORRECTIVE ACTION PLAN</b>
<b>OBS-P3-001</b>	The records on file with the Lab's procurement office do not include evidence of crane inspector qualifications as specified in the subcontractor's Blanket Order Agreement.	A resume for the crane inspector from Foley Material Handling is now available in the subcontracting officers file.
<b>OBS-P3-002</b>	In the two observed lifts conducted by the Laboratory, access to the lifting zones were not initially controlled to alert or prevent pedestrian access, as specified by the Laboratory's ES&H Manual Chapter 6140.	1. ES&H manual Chapter 6140 Cranes and Hoists is under revision. Technical Appendix T2 Use of Mobile Cranes on Jefferson Lab Property will be changed to include guidance for recommended pedestrian protection when a lift is conducted in an uncontrolled area. Expected completion date of Chapter 6140 revision is May 30, 2008.

		<ol style="list-style-type: none"> <li>2. Lift plans involving lifts conducted outdoors or in normal foot traffic areas will include the designation of personnel dedicated to perimeter control for pedestrians' safety.</li> </ol>
<b>OBS-P3-003</b>	Slings and rigging equipment that are being used for horizontal towing applications are not prominently identified/distinguished from other hardware, as to prevent future use for overhead lift applications. (DOE-STD-1090-2007, 11.3.5.3 and 12.2.8)	The Material Handling Safety Representative (MHSR) has removed all rigging used hoisting applications from warehouse areas that used this rigging for horizontal pulls. The warehouse operation has been provided with chain for horizontal pulls.
<b>OBS-P3-004</b>	The Lab's generic pre-use inspection elements for forklifts are not consistent or comprehensive relative to the make and model specific pre-use inspection criteria from the manufacturer; as such, some elements of the equipment operation may be overlooked during the pre-use review.	Two general inspection cards are currently in use. One for electrically powered vehicles and one for internal combustion engine vehicles. The manufacturer's specific inspection cards will be reviewed. Adjustments to or replacement of the general inspection card will be made where warranted.
<b>OBS-P3-005</b>	Three overhead crane operators at both Buildings 90 and 58 were unaware of the location of the crane's main power disconnect switch.	<p>An e-mail message will be sent to each qualified crane operator containing the following information:</p> <ol style="list-style-type: none"> <li>1. Identify the location of the crane disconnects in each building.</li> <li>2. Reaffirm that web straps, slings and all hoisting equipment cannot be used in horizontal pull configurations.</li> </ol> <p>Acknowledgement from each operator to verify their comprehension will be required.</p>
<b>OBS-P3-006</b>	Faulty conditions identified during the most recent annual inspection (August 2007) were not universally tracked by the Laboratory for repair or equipment control, in accordance with DOE-STD-1090-2007, 12.2.5.4.	<ol style="list-style-type: none"> <li>1. Crane inspection deficiencies are reviewed with the SOTR (Material Handling Equipment Representative) on a daily basis during inspections. Each deficiency is reviewed to determine if safe operation may continue with the deficiency found. If a crane or hoisting equipment is determined to be unsafe, the area manager is immediately notified and the crane is locked out by the Material Handling Equipment Representative or the hoisting equipment is physically removed from service.</li> <li>2. Crane inspection deficiencies that can allow continued safe</li> </ol>

		operation of the crane or hoisting equipment will be jointly reviewed with a Quality Assurance Inspector. Corrective action will be accomplished through the FM&L Work Orders or will be entered in the CAT System for tracking to completion, depending on the complexity of the corrective action.
<b>OBS-P3-007</b>	The subcontractor responsible for conducting crane and lifting equipment inspections did not use the same inspection stickers across the Lab.	The subcontractor will be required to use one consistent type of sticker through each inspection cycle.
<b>OBS-P3-008</b>	Annual crane and hoist inspection records contain notes highlighted by the inspector for equipment conditions that warrant "monitoring". These notes are not being shared with the cognizant building managers or crane operators.	Cognizant building managers and crane operators will be advised of monitoring notes made on the inspection records where the building manager and/or crane operator has the access and ability to monitor the sited condition.
<b>OBS-P3-009</b>	Several half-inch rigging shackles were available for use in the Building 90 machine shop tool crib without manufacturer's markings preventing traceability to a recognized standard, as required in Chapter 3410 of the Laboratory's ES&H Manual.	<ol style="list-style-type: none"> <li>1. Previous procurement procedure changes were made to prevent the procurement of hoisting and rigging devices without the signature approval of the Material Handling Safety Representative.</li> <li>2. Credit cards are no longer authorized for use in purchasing hoisting and rigging devices, Purchase Requests must be used.</li> <li>3. The crane operators throughout the lab will be reminded during their rigging equipment inspections to be vigilant to identify equipment that do not comply with the 29 CFR 1910.184, ASME B30.9, ASME B30.26 ASME B30.20 and industry Good Practices listed on the Rigging Gear Inspection Reference Card that have been provided to each operator.</li> <li>4. Facilities Management and Logistics will continue to identify and control the infiltration of rigging devices such as through experimental apparatus deliveries.</li> </ol>
<b>OBS-P3-010</b>	The manufacturer's capacity markings were obliterated on a forklift boom attachment	<ol style="list-style-type: none"> <li>1. The forklift boom attachment without capacity markings will be removed from service. (cannot confirm removal at this time)</li> </ol>

	stored outdoors adjacent to Building 8, and equipment of this type should be included within an inspection program.	2. All other similar devices will be located, catalogued and incorporated into the annual crane and rigging inspection program.
<b>OBS-P3-011</b>	A worker whose forklift training had expired several months ago was able to use his pass code to access the keys to a forklift that were contained inside an electronic lock-box.	A long term goal has been to interface each electronic key box with the CANS system. The interface will prevent access to keys when training has expired without human intervention. Until this interface is accomplished the MHSR will review the training expirations more frequently to maintain the key box data bases more current.