

Corrective Action Plan

IN RESPONSE TO FINAL REPORT FOR SURVEILLANCE OF THE TJNAF RIGGING AND MATERIAL HANDLING ACTIVITIES. AUGUST 2005

	Finding/Observation	Corrective Action	Responsible Person	Target Completion Date
FIND-1	A crane was located in the Experimental Equipment Laboratory (EEL) that had been retrofitted from a pendant to a radio-controlled crane, and the crane was not equipped with an audible alarm [29 Code of Federal Register (CFR) 1910.179(i)]. A second crane was identified in the Test Lab with a control pendant in use that showed indication of ineffective strain relief in that the cord was pulling away from its connection point to the hoist [29CFR1910.179(g)(1)(iv)].	EEL Crane retrofitted with strobe that functions whenever a crane controller is turned on (9/30/05). OSHA allows either a visual or auditable warning signal. Test Lab Crane Pendant was replaced with external visible strain relief (10/5/05).		Complete
FIND-2	Monthly wire rope and hoist chain inspections with documentation for overhead cranes are not being conducted on a monthly basis. Work Smart Standards Item 87 (29CFR1910.179 and 1910.180) requires such inspection be documented and signed by the inspectors. [29CFR1910.179(m)(1) and 29CFR1910.179(j)(2)(iv)]	SOP A-01-008-SOP (expired) was developed and requires wire rope inspections on a 3 months cycle. Email sent by Facility Management to Divisions requesting designation of principal operator to perform monthly inspections. SOP to be updated. Approval requested from TJSO for 3-month inspection cycle	Dave Kausch	15 February 2006 CATS Tracking #: IA-2005-89-01

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FIND-3	Monthly running wire rope inspection and documentation is not being performed as required for mobile cranes by Work Smart Standards Item 87. [29CFR1910.180(g)(1)]	Mobile crane has one operator and is used a few times a year. Mobile crane operator inspects wire rope prior to each use. Approval requested from TJSO for inspections prior to use rather than monthly.	Dave Kausch	15 February 2006 CATS Tracking #: IA-2005-89-08
FIND-4	A preventative maintenance program is not in place for cranes as required Work Smart Standards Set Item 87 (29CFR1910.179). While some crane lubrication is performed during inspection, it does not constitute a preventative maintenance program.	PM now conducted at approximately six months and again at the annual inspection by the inspection subcontractor.		Complete
OBS-1	Users of material handling equipment have no visual method of determining whether equipment has been properly inspected. Annual inspection due dates are not present with equipment, and the current checklists do not afford a means to verify daily inspections have been conducted.	Inspection stickers (with date of inspection) added during 2005 annual (October/November) inspections. An inspection card has been placed on material handling equipment for operators to conduct consistent pre-use inspections. Operators do not rely on daily inspections performed by someone else; they are trained to do an equivalent inspection before they use the forklift.		Complete
OBS-2	An individual identified as a "crane-owner" (building manager) was unaware of responsibilities as identified in EH&S Manual 6140.	Follow-up MHSR interview determined that reviewer's question was not understood by interviewee. MHSR verified that the interviewee understood responsibilities.		Complete

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OBS-3	While some mechanisms are in place, a receipt inspection of mobile cranes is not conducted in all instances to ensure suitability of equipment received and safe operational conditions.	Mobile crane receipt inspections are performed by the SOTR for the equipment, by the MHSR, <i>or are required by JLab for subcontractors who order second tier lifting and rigging services.</i>		Complete
OBS-4	The current DOE contract with SURA does not include OSHA construction standard, 29 CFR 1926. While applicable ANSI standards are incorporated in the contract, the ANSI standards are dated and have been revised several times since the date of the standards incorporation.	Because of the short time left on the current contract, action on this observation is deferred until the new contract is negotiated.		No further action
OBS-5	Two A-frame monorail hoists on rollers were noted without required inspection credentials.	These two A-frame monorail hoists located in the EEL clean room were satisfactorily inspected on 9/9/05. No deficiencies were found.		Complete
OBS-6	As defined in the EH&S Manual 6140, critical lifts include, among other things, lift activities with close tolerance installations and high susceptibility of damage. Discussions with operations personnel have indicated no critical lifts have been conducted in several years even though lifts that are frequently necessitated in the Halls meet the criteria of a critical lift.	Resolve definition of critical lift and the requirements for such lifts and document in the appropriate EH&S Manual chapter.	Bill Rust	31 March 2006 CATS Tracking #: IA-2005-89-07

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OBS-7	The crane inspector does not utilize a checklist when conducting inspections on overhead cranes, nor does the documentation provided to the Lab indicate that all requirements of 29 CFR 1910.179 or ANSI B30.2 for periodic inspections are being met. In addition, the Lab has not verified the qualifications of the crane inspector.	During 2005 annual (October/November) inspections and in all subsequent annual inspections, a standard checklist will be used by the inspection/maintenance subcontractor. The inspector is provided by the crane manufacturer of record. Requirement for inspection credential to be validated and if required obtained by the target date.	Dave Kausch	31 January 2006 CATS Tracking #: IA-2005-89-02
OBS-8	The Lab's contract with the crane inspection subcontractor does not specify that inspections must be conducted in accordance with national consensus standards.	The contract for crane inspections/maintenance cites 29 CFR 1910.179 which requires that all overhead cranes installed after August 31, 1971, must meet the specifications of the consensus standard: American National Standard Safety Code for Overhead and Gantry Cranes, ANSI B30.2. Because this language, which was in the contract at the time of the surveillance, was supplied to the reviewers, we do not understand the observation. Foley Material Handling Co. Inc. conducts all its services and inspections per OSHA, ANSI, and CMAA guidelines.		Complete

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OBS-9	The current procedure requires forklifts be inspected every 6 months; however, some forklifts are only scheduled for an annual inspection based on the documentation provided.	The manufacturer and the OSHA, ANSI standards only require a yearly inspection. We do them every 6 months. The one forklift in question hadn't had its 6-month inspection because it's been locked in Hall C during beam ops; note that the annual inspection was not overdue. Our procedure will be reviewed to validate proper inspection periodicity.	Kris Burrows	31 March 2006 CATS Tracking #: IA-2005-89-03
OBS-10	Based upon discussions with a rigger and crane inspector, torque wrenches are not being used when installing swivel hoist rings and in conducting inspection of cranes, respectively.	The inspectors stated a rigger was not using a torque wrench when connecting a hoist ring. Because the rigger was not identified, it was not possible to follow up this incident. However, JLab's training procedures clearly state to use the proper torque pressure identified on the torque ring using appropriate torque wrenches. The fact that a person was observed by an inspector not having appropriate tools to accomplish the task has been incorporated into JLab's rigging lesson plan notes as a lesson learned.		Complete
OBS-11	Based upon a discussion with a forklift operator, the operator did not have full understanding of the effects of load position on the capacity of the forklift.	Follow-up MHSR interview determined that reviewer's question was not understood by interviewee. MHSR verified that the interviewee fully understood the effect of load positioning.		Complete

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OBS-12	A battery charging station located in the Test Lab's Vacuum Tech Shop was inadequately protected against damage by trucks. [NFPA 505.8.3.2.1(3)]	Adequately protect the charging station. (The new centralized forklift service area which is currently under design will have adequate protection for charging stations.)	Keith Royston	23 December 2005 CATS Tracking #: IA-2005-89-04
OBS-13	Several shackles (8) were observed in which the pin did not match the width of the shackle, making the shackles unsatisfactory. With the current controls in place in the procurement process, the question remains as to how these shackles were made available for use.	These shackles were removed from service. Lab practice is for the MHSR to directly order or to do a receipt inspection on an order of rigging equipment such as shackles. No other shackles with these characteristics were found on site. MHSR also researched the shackles and found no specific requirements or guidelines in any standard that indicated that pin had to be flush with the end opening. The MHSR verified with the manufacturer that pin threads extending beyond the shackle (as was the case in this observation) is not a problem. Threads inside the shackle would have indicated a problem.		Complete
OBS-14	In the Test Lab, custom-fabricated, stainless steel, wire-rope slings do not have markings to identify their rated capacity or other unique identifiers. Load test certificates stipulated in the EH&S Manual 6140-T3 without unique identifiers are meaningless.	Slings are now properly marked.		Complete

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OBS-15	Legacy equipment does not have contemporary safety devices as exemplified by the absence of anti-2 block device on the mobile crane and absence of seat belt on the Allis Chalmers Forklift 17202607.	<p>The legacy equipment is a mobile crane manufactured before 1984. ANSI/ASME B30.5-2004 Mobile and Locomotive Cranes, section IV(c) states in part "It is not the intent of this volume to require retrofitting of existing equipment." Because adequate administrative controls are in place, e.g., 1) crane is used infrequently and 2) only user is MHSR, JLab has decided that any possible minimal safety gains do not warrant the cost of retrofitting this crane.</p> <p>Allis-Chalmers forklift in question was tagged out-of-service before the observation and is scheduled for removal.</p>		Complete
OBS-16	An overhead crane radio controller used in the EEL's Machine Shop and the Gantry hoist pendant located outdoors outside of the Machine Shop did not have directional controls labeled consistent with the bridge and trolley compass directions.	New directional labels were installed during the 2005 annual (October/November) inspections.		Complete

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OBS-17	Multiple types of forklifts, manlifts, and cranes are present in a given work area, and practical proficiency must be demonstrated for the different types of equipment operated to be deemed qualified to operate any one of them. Since the Lab discontinued the use of issuing material handling license as required in EH&S Manual 6140, there is no systematic, unified approach to identify user qualifications on specific material handling equipment. While this issue was identified by the lab during a previous assessment, areas without adequate control of material handling equipment use was observed.	Multiple certifications with differing expiration dates presented a cumbersome and sometimes outdated list of qualified staff. JList, a computer utility, provides the most current certifications on any employee trained in the use of materials handling equipment. Qualified forklifts, manlift and crane operators have access to the equipment through a key box system. Material Handling Safety Subcommittee is reviewing the need for MH licenses and will amend EH&S Manual 6140 as required.	Neil Wilson	31 March 2006 CATS Tracking #: IA-2005-89-05
OBS-18	Upon review of the Dresser mobile crane, the annual inspection date was 8 days beyond its one-year anniversary, and while not having been used for the past two months, additional conditions were observed that should be corrected prior to use which included: fire extinguisher needing recharging and hand-signal posting replaced.	The Dresser mobile crane was inspected and an inspection sticker installed during 2005 annual (October/November) inspections. Also at the time the fire extinguisher was recharged and the posting was replaced.		Complete
OBS-19	The storage rack located outside the Machine Shop contained inadequately restrained metal piping.	Corrected on the spot.		Complete