THE CRANE CORNER

Navy Crane Center Technical Bulletin

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A WORD FROM TOPSIDE

Sam Bevins

Navy shore activities have an enviable weight handling safety record. Although we will not be completely satisfied until we can show a record of ZERO weight handling accidents, over the years the severity of Navy crane accidents has been significantly reduced...a testament to the dedication and hard work of everyone in the Navy shore weight-handling program around the world. Our policy requiring reporting all unplanned events and learning valuable lessons from the small ones have greatly helped reduce the occurrence of the big ones.

Recent crane accidents, particularly in the private construction industry, remind us of the threat of poor risk management when operating, or even erecting, large cranes in support of construction. With a significant increase in construction at many of our shore activities, contractor crane operations will be much more common. Construction tower cranes are showing up at more and more Navy construction sites. Proper oversight of tower crane erection and operation by knowledgeable Navy personnel is a key part of ensuring the work will be done safely.

The Navy does not own or operate tower cranes. We jointly need to quickly strengthen our understanding of the unique characteristics of these cranes and the risks they impose. The Navy Crane Center is in the process of developing a training supplement to our Contractor Crane Awareness training course that will focus specifically on tower cranes. We will soon make this training available to contracting officer representatives. The training will include aspects of both erection and operation that contracting officer representatives need to look out for. Erection of a tower crane can be complex and proper erection is critical. Erection plans must be fully developed and reviewed, from the design of the foundation or crane support to the proper use and installation of the fasteners for the tower sections to the proper assembly and installation of the boom. Then the erection must follow the plan. Proper disassembly of these cranes is just as important to ensure it is done safely. Erection and disassembly of these cranes normally require large capacity mobile cranes, which will be performing critical lifts with near-capacity loads lifted to extended heights. It is just as essential to ensure these lifts are properly planned and executed. Tower cranes also have some unique operating characteristics that contracting officer representatives should be aware of. Our awareness training will address these issues to help improve the knowledge base of contracting officer representatives who provide the essential oversight of this work.

Contracting officers are reminded of the specific contractor crane requirements of NAVFAC P-307 and the Army Corps of Engineers safety manual EM 385-1-1, which are embodied in the Unified Facilities Guide Specification for Governmental Safety Requirements, which should be a part of every construction contract. These requirements apply to all cranes, including tower cranes, and contractors must follow them.

The construction tower crane is a relatively new type of crane at many of our Navy shore activities. With proper knowledge and effective oversight, we can help ensure contractor crane operations on Navy property continue to be the safest anywhere.

Inside This Issue

LEAN SIX SIGMA INVENTORY REDUCTION EVENT AT NUWC NEWPORT

Naval Undersea Warfare Center (NUWC) Division Newport, Naval Station Newport, and Public Works Department Newport recently participated in a Lean Six Sigma (LSS) event with a goal of reducing the inventory of fixed and portable weight handling equipment units at NUWC Division Newport. The LSS Crane Initiative Project identified the need to reduce their active crane inventory, thus lowering the cost of upkeep and operation. NUWC Division Newport had 326 pieces of active cranes and portable units.

The project team identified 36 fixed weight-handling units that will not be needed for the next recertification period. These units will remain in place for reactivation to meet future mission requirements but will be tagged out when their current certification expires. Also, 37 portable weight-handling units were transferred from local custody to a new Division-level pool for cross-departmental use to meet intermittent and one-time lift requirements for more efficient use of the equipment. As a result of this LSS event, a standardized process is now in place to maintain the active inventory only at what is needed to accomplish mission requirements. For a 12-month period following the crane certification expiration date of an assigned crane, a review of the requirements for that crane is now required.

The substantial savings generated by this LSS initiative will now be available for other NUWC initiatives. All activities are encouraged to continuously review your crane inventories (including portable units) for opportunities to deactivate unneeded cranes and to manage them more efficiently and effectively.

LESSON LEARNED INVOLVING RADIO REMOTE CONTROL OF BRIDGE CRANES

Best practices in maintaining accountability of crane radio remote controllers and their backups can improve safety and deter potential accidents. This is what operator managers and crew workers at a non-Navy activity discovered after a recent incident involving two bridge cranes at their facility. In a June 2008 occurrence report, employees took steps to improve the operational safety of radio remote bridge cranes as a result of the inadvertent operation of a bridge crane using a radio remote controller. In the events leading up to the incident, there was an apparent mishandling of remote controllers due to the acquisition of a backup controller that replaced an existing problematic one. Both operated on the same frequency to control a bridge crane (Crane 1). However, the problematic controller was never removed from the area but remained in circulation, thus leaving two controllers deployed to operate one crane.

On 27 March 2008, an attempt by crew members to operate another bridge crane (Crane 2) using what was thought to be the radio remote controller for that crane failed. Investigation of the matter determined that the controller was actually set to operate Crane 1, which it did. After notification, the facility coordinator immediately secured the controller. Fortunately, no one was injured and no equipment was damaged.

Examination of the occurrence report revealed that several factors contributed to the incident. First, the backup controller was stored in an unlocked uncontrolled cabinet allowing easy access. Second, all the controllers, including backups, were identical, except for their frequency settings and poor labeling. Last, there was no accountability practice in place to keep track of the controllers and their backups.

Lessons Learned

As a result of the event that took place, four lessons learned were transmitted to the affected organizations. Additionally, safety personnel planned a follow-up with each respective user to make sure that improvement processes were implemented for remotely operated cranes. The lessons learned are listed below.

Lesson 1: Apply an easily readable identification label to the front of each hand held controller containing the necessary information to ensure that the controller matches the intended crane.

Lesson 2: Lock all of the spare controllers in a cabinet in the Operations Manager office. The spares will remain under the positive control of the Operations Manager at all times. The Operations Manager is the only individual authorized to issue a spare controller, and this occurs only after receipt of the controller the spare is replacing.

Lesson 3: Install a lockable storage case for each individual hand held controller at the location of each crane power disconnect box. This box will be in the same general location as the crane inspection records for each crane. The controller will remain locked inside this storage case at all times when not in use. Access to these boxes will be controlled by the Operations Supervisor, and will only be granted to an authorized crane operator requesting use of that crane. When the task is complete, the controller will be returned to the storage box, and the Operations Supervisor ensures the correct controller is returned to the correct storage box and once again locked.

Lesson 4: Modify the activity standard monthly and pre-operational crane inspection check-sheets to address the requirement to visually check the hand controller identification tag and ensure it matches the crane identification number, prior to beginning the functional test of the controller. If the controller identification tag and crane identification number do not match, stop and contact the control room.

Some of the lessons learned are specific to this activity, but all incorporate best practices. With some variation, these lessons learned can be applied to any activity determined to implement a more safe and accountable system.

In addition to the lessons learned, it is important for activities to keep in mind that the Navy Crane Center recommends licensed, as opposed to non-licensed, transmitting equipment that operates on government exclusive or government shared frequencies as stated in the Unified Facilities Criteria (UFC) 3-320-07N Weight Handling Equipment, paragraph 5-5.5.25 and OPNAVINST 2400.20E. For more details and information, see section 5-5.5.25 of the UFC.

HAVE YOU HEARD ABOUT SELF CONTAINED AUTOMATIC LUBRICATORS?

Self contained automatic lubricators are available for installation either directly at the component lubrication port or as multi-point, single-source installations. Gas-driven, disposable lubricant dispensers generate a pressure of 50 psi and can be mounted up to three feet from the lubrication point. Each dispenser has a control block that allows selection of the feed rate. Dispenser reservoirs are available in 60 cc, 125cc, 250cc and 475cc sizes and come preloaded with the customer desired grease or oil. Costs for the dispensers are approximately $35 for 60cc, $36 for 125cc, $50 for 250cc or $80 for 475cc. A motor driven variety generates up to 900 psi, can incorporate multi-point valve blocks to feed multiple lube ports and can be mounted up to 30 feet away from any one lube point. A model is also available that can utilize standard cartridge lubricants.

CRANE SAFETY ADVISORIES AND EQUIPMENT DEFICIENCY MEMORANDA

We receive reports of equipment deficiencies, component failures, crane accidents, and other potentially unsafe conditions and practices. When applicable to other activities, we issue a Crane Safety Advisory (CSA) or an Equipment Deficiency Memorandum (EDM). A CSA is a directive and often requires feedback from the activities receiving the advisory. An EDM is provided for information and can include deficiencies to non-load bearing or non-load controlling parts.

CRANE SAFETY ADVISORY

No new CSAs have been issued since the 58th Edition June 2008 publication of the Crane Corner.

EQUIPMENT DEFICIENCY MEMORANDUM

EDM 096, Robbins & Myers (R&M) Frame A Spacemaster II Hoist Revised Gearbox Oil Type

The purpose of this EDM is to inform activities of a change in the recommended oil for the hoist gearbox on R&M Frame A Spacemaster II hoists.

An activity reported repeated early deterioration of load brake friction linings caused by using the OEM manual specified multi-purpose 20 or 30 weight lubricating oil in the hoist gearcase. The OEM now recommends using Mobil DTE-AA or equivalent oil in Frame A Spacemaster II hoists to prolong the life of gearcase components including load brake friction linings. The OEM notes a single exception for outdoor hoists operating in severe low temperatures, approximately 30 degrees Fahrenheit or less, users should continue to use the manual specified 20 or 30 weight oil in order to allow the hoist to function normally without hesitation or chattering.

Activities are notified of the OEM change in recommended lubricating oil for R&M Frame A Spacemaster II hoists, that are not operating in outdoor environments with temperatures approximately 30 degrees Fahrenheit or below. Also, the OEM notes the requirement of pre-soaking the load brake friction discs in oil for at least one hour prior to assembly.

OVERSIGHT OF CONTRACTOR WORK ON NAVY CRANES

In his Word from Topside of September 2007, Mr. Bevins stressed the importance of establishing an "ownership culture" in your weight handling program with a focus on "right sizing" your material assets and personnel resources. During FY 2008 compliance reviews, we were pleased to note that many activities had reviewed their weight handling needs and streamlined resources where feasible; however, our audit teams did identify a handful of activities that had not thoroughly reviewed their programs for improvement or taken full advantage of efficiencies proven effective at other activities.

In the coming year, we want to bolster the asset management gains we achieved in FY 2008 by focusing on the oversight of weight handling programs at activities that utilize the services of contractors. Many of our activities utilize private contractors to conduct maintenance, inspection, and test functions for their weight handling programs, and in some instances, contractors perform operations as well. A common thread at many of our high performing commands is a strong government oversight program. Strong government involvement to oversee the process, document and raise performance issues, and to hold the contractor accountable in meeting contract specifications is a necessity but other aspects of the oversight role could have an even greater effect in establishing long-term gains in your weight handling programs.

With the proper oversight, private contractors can do an outstanding job of maintaining, inspecting, and testing cranes at your activity. However, other functions such as strategic planning (identify future crane asset needs), continual review of material assets and personnel resources (last year's focus area), and the documentation of lessons learned and other improvement efficiencies for revising future contracts is critical in maintaining a strong lifting and handling program.

To highlight the importance of this area, in a few instances, our audit teams have identified examples where activities have not taken full advantage of recent changes to NAVFAC P-307 that targeted reducing maintenance costs based on thorough detailed analysis of maintenance and reliability data throughout the Navy's shore based weight handling program. At many activities, crane maintenance, inspection, and test functions are part of a larger Base Operating Services Contract, which is used to conduct maintenance and service functions base or area wide. Discussions with activity personnel have identified that in some cases, the cost avoidance changes were not considered due to the cost and effort involved in modifying the contract.

While the cost associated with the contract modification does not warrant changing the contract immediately, in many cases the activity is not identifying, documenting or tracking the improvement initiatives for inclusion in the next contract.

In summary, no one has a greater stake in strong oversight of your weight handling program than you. Although private contractors play a key role in maintaining our shore based crane inventory, strong government oversight of the entire process is essential to identify improvement initiatives, maintain the proper inventory, establish the lifting and handling "strategic vision", and take the strong steps necessary to achieve our common goal of "zero crane accidents".

HAVE YOU HEARD ABOUT?
COMBINATION OVERLOAD AND SLACKLINE LIMIT SWITCH

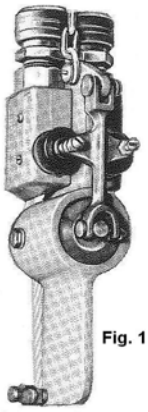
Fig. 1

The Combination Overload and Slackline Limit Switch, pictured in figure 1, is a universal part that protects against overload and slackline conditions on cranes and electric hoists. Features that have become the norm in present day overload limit switches are not to be found in this vintage design. There are no alarms or lights to signal an overload condition. However, there are two micro-switches that can be wired in line with the hoist motor up or down directions to turn off the motor in the event of an overload or slackline condition.

Operation of the switch can best be described from looking at the SIDE view of figure 2. There is no need to remove the wire rope when installing the unit because it clamps directly onto the standing part of the line or at the equalizer sheave. Essentially, the rope passes through the guide rollers with connection made at the bottom of the plunger. During a lifting operation, as tension is applied by the load, the rope straightens out and pushes the plunger and lever arm outward, which in this case is towards the right. For an overload condition, the plunger continues its movement toward the right until the lever arm trips the micro-switch, shown by the dashed line. Only a gradual movement is required to trip the limit switch. For slackline operation (i.e. when the block is lowered and comes to rests on a surface causing a slackening of the rope), the plunger will travel to the left. When the plunger travels far enough to the left, the micro-switch trips and the hoist stops travel in the downward direction. As shown in figure 1, there are two micro-switches, one for the overload operation and the other for slackline. Either operation can be wired to suit application needs.

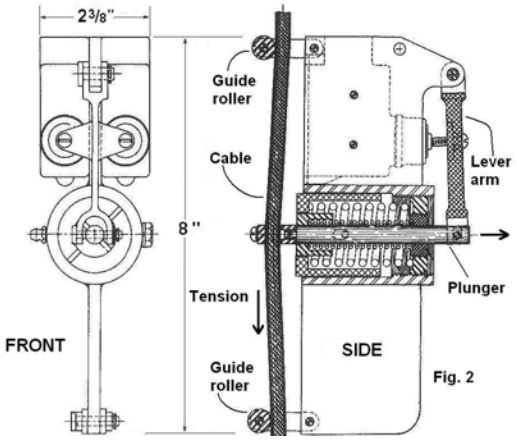

Fig. 2

The Combination Overload and Slackline Limit Switch operates on ac voltages of 125Vac, 250Vac, 480Vac, and 600Vac, and dc voltages of 125Vdc, and 250Vdc. It requires 8” of headroom and can be used on existing installations with wire rope diameter sizes of 3/8”, 7/16”, and 1/2”. The weight settings for the overload and slackline operations can be factory set to the desired capacity up to 10 tons. Additionally, set screws on the micro-switches allow the weight settings to be adjusted by the customer. For load testing, bypassing the overload limit switch for the up direction is a matter of placing a jumper across the terminals of the micro-switch connection in the control panel. Once load testing is complete, the jumper must be removed for proper operation of the overload limit switch.

SUMMARY OF WEIGHT HANDLING EQUIPMENT ACCIDENTS THIRD QUARTER FY08

The purpose of this message is to disseminate shore activity weight handling equipment (WHE) accident and near miss lessons learned to prevent repeat accidents and improve overall safety.

NAVFAC P307 requires commands to submit to the Navy Crane Center (NAVCRANECEN) a final, complete accident report (including corrective/preventive actions) within 30 days of an accident, regardless of severity or type. This reporting requirement includes rigging gear accidents, i.e., gear covered by section 14 of NAVFAC P307 used by itself in a weight handling operation and other unplanned occurrences with lessons to be learned. In addition, contracting officers are required to forward to NAVCRANECEN reports of all contractor accidents, including contractor caused accidents with navy owned cranes. To ensure adequate time to react to negative or undesirable accident trends, NAVCRANECEN requests initial notification of any crane or rigging gear accident within 3 days of its occurrence. Accidents involving a fatality, in-patient hospitalization, overturned crane, collapsed boom, or other major damage to the crane, load, or adjacent property continue to require a NAVCRANECEN notification as soon as practical but not later than 24 hours of the event.

For the third quarter of FY08, 49 Navy WHE accidents (38 crane accidents and 11 rigging gear accidents) were reported. Eight of the 38 crane accidents were significant (crane overload, rigging overload, dropped load, two-block, and injury). The number of crane accidents decreased by over 25% compared to the previous fiscal year third quarter. Approximately 30% of the crane accidents this quarter were crane or load collisions. Crane equipment damage accounted for another 30%. Some of the more significant crane accidents this quarter are discussed herein.

DROPPED LOAD

Accident: While a crane crew was lifting a cleat assembly, secured together with tie wraps, a tie wrap broke and a pillow block fell into the water. The cable tie proved insufficient during the lifting and handling evolution. With angled landing tips, the cleat assembly was out of the horizontal plane and one cleat was lower which placed extra stress on the cable tie. The locking tooth on the cable tie failed.

Lesson learned: Certified lashing should have been used to secure the entire load, including the pillow blocks, to prevent the block(s) from falling. Tie wraps are not certified for rigging and the use of tie wraps for lashing is not an acceptable practice. Lashing is defined as wire rope, synthetic rope or synthetic webbing that is used for wrapping and securing around and/or through an object to provide a point or points from which to lift. Lashing shall be marked with its rated load and needs to be inspected annually as well as after each use for evidence of possible damage. Crane crew inexperience with cleat assemblies was also a factor.

Accident: While attempting to lower an object into a storage container, the cylindrical object was dropped after its lifting eye bolt rolled out of the throat of the crane hook. This lift was made using two hoists. One was attached to an eye bolt located on the forward end assembly and the other was attached to a synthetic sling positioned on the AFT end. The object was lifted horizontally off the deck and then the AFT end was lowered to place the object into the vertical position. As the load was lowered, it rotated and caused the eye bolt to twist on the hook. This caused the eye bolt to press on the self-closing latch, which was pushed sideways and allowed the eye bolt to roll out of the hook.

Lessons learned: The lift procedure was vague on proper hook placement and rigging technique. A shackle placed between the eye bolt and the hook would have prevented the accident. The rotation of the eye bolt would have been regulated by the shackle and would have stayed within the proper lift angle on the hook.

Accident: A Category 3 overhead chain hoist on a monorail was traveled through a switching station that was open, falling 14 feet to the deck along with the load it was carrying. The track stops had been previously damaged from past collisions. The investigation identified that the trolley was difficult to move due to wheel tightness, and the wheel size could easily allow travel past the safety stop.

Lessons learned: This accident occurred as a result of using damaged crane equipment. Once damage is noted on any crane or rigging equipment, it should be taken out of service until it can be repaired. The investigation report indicated that the hoist/monorail was allowed to operate for nearly a week with tight trolley wheels and damage to the track safety switch. Had the damage been reported sooner, the accident might not have happened. In addition, operators should be aware of the locations of the end stops and not rely on the use of end stops to stop movement of the hoist while traveling.

OVERLOAD

Accidents: While lifting a parts rack with a Category 3 electric chain hoist (500-lb. certified capacity), the crane shut down due to an overload condition. The mishap investigation revealed that the hoist was equipped with a slip clutch to prevent damage to the hoist during an overload. The rack being lifted had a weight of 765 lbs., which exceeded the capacity of the crane. The clutch worked as it should during the overload. The investigation also revealed that three additional hoists located on the same monorail system were also used to lift the parts racks and had been overloaded on a regular basis since they began lifting the racks.

Lesson learned: The operator did not verify the load weight of the racks prior to lifting. Operators and riggers must know the capacity of the crane and the weight of the load, or have a reasonable estimate of the weight to be lifted, to avoid overloading of equipment. If the weight is estimated to exceed 50% of the capacity of the hoist or 80% of the capacity of the rigging gear, platform/skid, below-the-hook lifting device, etc., the weight shall be verified by performing an engineering evaluation or using a local procedure approved by the certifying official or activity engineering organization. Alternatively, a load indicating device shall be used. This mishap also points out the need to ensure that weight handling equipment is properly sized to support the intended work requirements for the facility.

Accident: A below the hook lifting device, with a rated capacity of 4,000 lbs., was overloaded during a routine lift to weigh a box of lead ballast for shipment. A suspended pallet fork was rigged with a load indicating device to weigh the box after it was filled. After the box was filled with what was estimated to be the approximate correct weight, the rigger/operator lifted the load and noticed he had exceeded the capacity of the pallet fork.

Lessons learned: The rigger/operator did not follow requirements for using load indicating devices. When a load indicating device is used, an appropriate stop point shall be established and the load indicating device shall be carefully monitored to ensure the stop point is not exceeded. If the load indicating device can not be monitored during crane operation, the lift should not be made and supervision should be notified. The assignment of additional personnel to monitor the load indicating device could have prevented the overload.

Accident: While lifting a full sand blasting hopper from the drydock, a load cell was overloaded. The rigger supervisor instructed the Rigger-in-Charge (RIC) to use a load cell in the lift configuration. The RIC incorrectly informed the supervisor that a 50,000 lbs. Capacity load cell would be used. The supervisor questioned this capacity and the RIC corrected himself and said that the load cell had a capacity of 50 tons. The actual capacity was 50,000 lbs. While raising the hook, a reading of 47,000 lbs was called out and then the crane rigger yelled "stop." The crane rigger informed the RIC that the readout was displaying an overload. The operator confirmed the overload with the crane's load moment indicator.

Lessons learned: Lack of detail and situational awareness contributed to this mishap. The work leader failed to correctly identify the proper capacity of the load cell. The supervisor questioned the capacity during a pre-job briefing, but personnel did not verify the capacity of the load cell prior to or during installation of the rigging gear. In addition, the personnel involved did not understand what constitutes a complex lift and the requirements to make the lift. A crane briefing was conducted and revealed that the team did not have a known weight on the hoppers. In error, the team thought an unknown weight made the lift a complex lift. (actually the weight of the hopper being over 80% of the capacity of the hook is what made this lift a complex lift.) There was no engineering approved drawing or instruction on the jobsite for this lift as required.

INJURY

Accidents: During VLS cell prep, a crew member onboard was injured as a canister adapter was hoisted from a VLS cell. The RIC made contact with the ship and was then briefed by ship's force on details of the assignment. The RIC then conducted a pre-lift meeting, which only included the members of his crane team. To ensure all clear conditions existed for the lifts and were communicated, ship's force personnel were positioned on the main deck and telephone communications from the cell were then relayed to the ship's force deck supervisor and then to the RIC on the main deck adjacent to the hatches of the VLS cells. Due to a lack of visibility between the mobile crane operator located on the pier and RIC, a second rigger was positioned along the lifelines of the ship to relay signals to the operator. During the lift, as the RIC signaled for the crane to hoist up, ship's force personnel began to yell for the crane to lower the load. It was at this time the RIC discovered that the arms of one of the crewmembers within the VLS cell had become pinched between the canister adapter being hoisted and a component within the cell. The crew member was treated for severe bruising on both arms and was released to return to duty the following day.

Lessons learned: Inadequate communication was used. The RIC conducted an inadequate pre-lift briefing that did not include all personnel utilized on the assignment with their roles/responsibilities and did not identify minimum communication requirements. As verbal communications on the assignment either became or appeared to be intermittent throughout the day, the RIC failed to stop the assignment, clarify communication expectations and resume operations once the unacceptable practice was corrected.

Weight handling program managers program and safety officials are to review the above lessons learned with personnel performing lifting and handling functions and consider the potential risk of accidents occurring at your activity. This is also a good time to reinforce the principles of operational risk management.

E-mail submission of reports of accidents, unplanned occurrences and near misses is desired. The e-mail address is nfsh_ncc_accidents@navy.mil. Per chapter 12 of NAVFAC P307, the report must include a complete and concise situation description, corrective and preventive actions, probable cause and contributing factors, and an assessment of damage. For equipment malfunction or failure include the specific description of the component and the resulting effect or problem caused by the malfunction or failure.

CRITERIA CHANGE REQUEST (CCR) FORM

The May, 2007, issue announcement for UFC 3-320-07N, Weight Handling Equipment included instructions for providing feedback and requests for clarification. That direction referred to the Criteria Change Request (CCR) form, located at https://www.projnet.org/projnet/cms/public.html.

Although the link was active and appeared to work, the process forwarding the form for action was not functional. As a result, Navy Crane Center received no CCRs from supported commands. The process is repaired and is now functional. To submit a CCR, use the link above. When you reach the ProjNet CCR page, select "NAVFAC" as the agency. Select "Unified Facilities Criteria" as the document type. Select "3-320-07N Weight Handling Equipment" as the document. Complete the problem and solution blocks. Enter your contact

information. Click "Submit CCR". Responses to individual requests will be provided as rapidly as possible. Changes will be made during the next revision cycle. One important note, if you previously submitted a CCR, please resubmit it. CCRs input prior to repair of the link were not retained.

REMINDER

The Navy Crane Center (NAVCRANECEN) is hosting a Navy Weight Handling Conference 5 - 7 May 2009. The conference will be held at the Norfolk Waterside Marriott hotel in Norfolk, Virginia. The purpose is to share weight handling equipment (WHE) improvement initiatives and safety practices as well as to discuss related issues with the goal of further improvement in WHE safety, maintenance management, engineering, operations, and training.

All Navy shore activities and shore based operational units with WHE are invited to attend and participate. Complete and submit a registration form for each person attending the conference by 3 April 2009. Early registration is encouraged. The registration form can be found on the NAVCRANECEN web site.

Topics may include: WHE accident review and prevention initiatives; risk management; new technologies; mobile crane safety; acquisition of WHE equipment; Lean Six-Sigma efforts in weight handling; contractor crane safety; crane drives and controls; oil analysis for cranes; and wire rope selection. Proposed agenda items from these or other WHE topics are welcome. Additionally, activities interested in making a presentation should contact NAVCRANECEN.

Conference information is posted on the NAVCRANECEN web site, https://portal.navfac.navy.mil/ncc.

RECENT NAVY CRANE CENTER INTERNET IMPROVEMENTS

The following enhancements have been made to the Navy Crane Center Internet site:

Safety messages issued by the Navy Crane Center during 2006-2008 are now available by clicking on the **CSA/EDM/SAFETY MSG** tab. The safety messages are grouped by the year in which they were issued.

All of the P-307 Questions and Interpretations are now hyperlinked to their applicable chapters in P-307. Click on the **P-307** Tab; click on the **P-307 June 2006** bar to download and open P-307. Once in P-307, you can click on any heading that is highlighted in yellow to see the questions and interpretations associated with that heading.

There is now an index of all the Crane Corners starting in December 2001 with the 32nd Edition. The Crane Corner is the Navy Crane Center Technical Bulletin issued quarterly. The index lists the titles of the articles in each bulletin. To access the index, click on the **CRANE CORNERS/REPORTS** tab, then click on the green shaded **CRANE CORNER INDEX** bar. Each index entry is hyperlinked to its applicable Crane Corner edition.

You can access the Internet site at the following: https://portal.navfac.navy.mil/ncc

SHARE YOUR SUCCESS

We are always in need of articles from the field. Please share your sea stories with our editor nfsh_ncc_crane_corner@navy.mil.

Operational Risk Management 5-Step Process

- Identify Hazards
- Assess Hazards
- Make Risk Decisions
- Implement Controls
- Supervise (Watch for Changes)

Weight Handling Program Videos

Accident Prevention, seven crane accident prevention lessons learned videos are available to assist activities in raising the level of safety awareness among their personnel involved in weight handling operations. The target audience for these videos is crane operations and rigging personnel and their supervisors. These videos provide a very useful mechanism for emphasizing the impact that the human element can have on safe weight handling operations. Send requests to ***nfsh_ncc_crane_corner@navy.mil*** for these videos.

Weight Handling Program for Commanding Officers provides an executive summary of the salient program requirements and critical command responsibilities associated with shore activity weight handling programs. The video covers NAVFAC P-307 requirements and activity responsibilities. The video is available at http://dodimagery.afis.osd.mil/ (DAVIS/DITIS) (PIN 806467) in VHS, CD-ROM, and DVD.

Load Testing Mobile Cranes at Naval Shore Activities provides load test personnel guidance on properly testing mobile cranes per NAVFAC P-307. The video is available at http://dodimagery.afis.osd.mil/ (DAVIS/DITIS) (PIN 806634) in VHS, CD-ROM, and DVD.

Mobile Crane Safety covers seven topics: laying a foundation for safety, teamwork, crane setup, understanding crane capacities,