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US Army Corps	
of Engineers	

OCTOBER 2013

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Do you ever wonder, when waiting in anticipation for a big event,...when will that day finally get here? Well...For the Crane Working Group, the Train-the-Trainer class, conducted from April 8th through 12th, we felt that way. The Working Group had been pulling together information, working through the regulations, "discussing" what the training needed to look like and finally finding a location that could facilitate our needs. All of those fears, concerns and anticipation were realized on the morning of April 8th when we welcomed approximately 87 USACE employees to the 1st USACE Crane and Rigging, Train-the-Trainer course.

course designed to take Crane / Hoist Operators, Riggers, and Signal Persons and provided them with the; regulations, requirements, and resources to go back to their home District and train their employees on USACE on the written and practical elements of our Cranes, Rigging, and Signal Person program. Huge kudo's to the Nashville District for stepping up to the plate and finding a National Guard facility that met our requirements to the tea. Thanks to LTC James DeLapp, Commander Nashville District, Diane Parks, Ch, Operations, Kyle Tanner, Ch, Safety & Occupational Health for their outstanding support in helping us realize this training opportunity. Great hosts in a great location.

And....the Working Group wants to again offer up a HUGE THANK YOU to Mr. James Sowell. If there was ONE obstacle that continually challenged the Working Group, it was finding a facility that met ALL of the requisite needs for us to be able to conduct this training. James came through!!! James worked all of the logistics, addressed security needs and eceived permission to bring a USACE Crane onto the site to allow us to work through some of the practical portions of our class. What a blessing.

This issue is dedicated to the Train-the-Trainer (TTT) Class.



Smyrna, Tenn April 2013

COUNTERWEIGHT - PG.2

THE CLASS

Once we finished the Who, What, Where, and How's that accompany every class I've ever been to, our focused turned towards a very aggressive agenda. An agenda that would break our program down into bite-size portions. The sessions were broken down as:

- √ General Safety
- √ Cranes
- √ Rigging
- √ Signal Persons

GENERAL - In the General Session, trainers were provided with information that would serve as the background for HOW the Corps of Engineers arrived at an In-House training program. The session broke down into the following topics:

OPORD 2011-82 - This Operational Order set the process of USACE identifying the; pieces of equipment we owned / operated, the number of qualified crane operators, riggers, and signal persons we had working for us.

ACCIDENT DATA - From 2010 to 2013, we identified accident trends and leading indicators.

ACCIDENT DEFINITION AND EXAMPLES - We needed our instructors to understand what an Incident was...what an Accident was and how the DA breaks down the classification of accidents. (Class A, B, C, and D).

TRAINER EXPECTATIONS - As a USACE Trainer, there are expectations that you will go back to your Supervisor and schedule training for your AOR. We were looking for Trainers to start their training within 60 days from returning to their home station.

TRAINING TECHNIQUES - As a USACE Trainer there are many; training aids, tools, and resources available to you. We recognized that training Can and Should be interactive and not a painful process. We provided an overview of training techniques that the students could use to facilitate their classroom and practical training.

CRANES - To provide the Trainers with the feel of how the class would go and to give the Working Group a basic understanding of the competency level of the students in the Train-the-Trainer class, we administered a written exam. This IS a requirement for ALL USACE Crane Operators, so what better way to start a session...right?

PROGRAM OVERVIEW - We provided the students with a review of our EM 385-1-1 requirements and their requisite topics to cover during this portion of the class. From the overview of what is a Crane in Section 16.A. to the Powered Industrial Trucks in 16.V, we worked the students through the critical elements of the Crane Section.

WRITTEN EXAMINATION - Not only did we test the students, we shared the How to test students. One of the key points we identified during this session addressed the core value of INTEGRITY. It does NOBODY any good to cheat or borrow answers from a co-worker. As an instructor, it is paramount to ensure that all students understand the importance of doing their own work. There are lives on the other end of your load, don't compromise the program for the sake of a friend.

PRACTICAL TEST - In accordance with accepted industry practices, USACE Crane Operators will be required to past a practical operational examination. A course will be set-up by the instructor and Operators will be required to negotiate the course with a acceptable passing score.

 ${\sf REFERENCES}$ - In addition to EM 385-1-1, Instructors will need to understand the Federal requirements found in:

- $\sqrt{}$ 29 CFR 1926, Subpart CC, and
- $\sqrt{}$ 29 CFR 1910, Subpart N

RIGGING - To provide the Trainers with the training, resources, and tools required to successfully instruct a Rigging class. As with the Crane class, the students were required to participate in a written exam. This IS a requirement for ALL USACE Riggers.

GENERAL - In the General Session, trainers were provided with information that would serve as the background for basic Rigging operations. Trainers were shown deficient rigging equipment that had been provided to the Working Group to use as training props. The trainers will be provided with a kit for training, however they will find that some of the most useful tools in THEIR training kit will come from personnel who recognize a deficient piece of rigging and provide these to the trainers to use.

MULTIPLE LIFT RIGGING (MLR) - MLR's were inserted into the 2008 version of the manual. Contractors and Districts were requesting that this standard industry practice, be allowed. After research and discussion, this section and the very specific requirements for application, were added to the manual.

RIGGING - Trainers were given instruction on the proper; inspection, care, maintenance and record-keeping requirements associated with Rigging Hardware. The Working Group provided training on topics such as:

- √ Chains
- $\sqrt{}$ Synthetic Slings
- √ Shackles
- $\sqrt{}$ Hooks.
- $\sqrt{}$ Rigging Practices (e.g., finding the Center of Gravity) and
- $\sqrt{}$ Miscellaneous Rigging Hardware

SIGNAL PERSON - To provide the Trainers with an understanding of the OSHA, EM, and ASME requirements associated with a Signal Person.

HAND / VOICE SIGNALS - Our primary goal was for the Trainer to understand the importance of properly given; hand and voice signals. The Trainers were tested on standard hand and voice signals. We walked the Trainers through the three important EM requirements related to the subject matter.

TESTING - All Trainers were instructed on the approved standard hand signals identified in the EM. The Trainers were then allowed the opportunity to work with a colleague on giving / receiving hand signals and then, Trainers were tested and graded on their ability to effectively demonstrate the proper hand signals to a member of the Working Group.

INSTRUCTING - Trainers were instructed that during the training course, they would be provided with an opportunity to provide a briefing to their colleagues. Students were to prepare and deliver a 5-minute briefing to members of their group (broke students into 3 briefing groups.). As you'll read, when we interviewed CSM Groninger, THIS was not only information, but it was also entertaining. We all got to see the creative juices flowing as some of the students demonstrated their ability to train Trainers!

This session also afforded the opportunity to learn from those whose comfort level in front of others was demonstrated and how to overcome your fear and anxiety as it relates to standing up in the crowd. You HAVE to stand in front of your peers in the real world, this was a safe place to practice!





COUNTERWEIGHT -PG.3

A visit with Command Sergeant Major (CSM) Groninger

The Train-the-Trainer training was fortunate to have the CSM for the Army Corps of Engineers, join us for a couple of days. CSM Groninger graciously accepted the invitation from the working group to actively participate in our Trainer Training, to discuss how Crane and Rigging safety was applied at the field level, and to listen and understand how he could support our operations.

In the weeks after the training, Ellen and I had a chance to catch up with CSM Groninger and get his opinions on how he thought the training went. The following are excerpts from that meeting.

Q: You had an opportunity to engage and interact with USACE employees while at the Train-the-Trainer class. What were your expectations for the class going in?

A: My hope was that the training was oriented to be Train-the-Trainer, which is completely different than training

individuals. Training individuals you can present a class, get feedback to evaluate that the message you sent was the message received. Did the individuals have and retain the level of competency you were striving for. It's more complicated when you're training trainers. You have to make sure that the trainers can articulate the information in such a way that the folks they are going back to train will actually gain. It was an aspect that I was concerned about. Were we going to able to turn our personnel, that the Districts identified, into trainers (having the technical knowledge to do so), not just better operators.

Q: Based on what you observed, were your expectations met?

A: Yes, they were. We'll still have to wait and see. The real proof will be when we conduct surveys of the personnel who received the training in the field and see if they feel the training was beneficial. I was very happy to see the manner in which the training was formulated. Again, performance oriented training, testing our folks on the hand signals was great, the written test was great, but probably my favorite part of the training was the fact that we made our folks get up in front of a group of their peers and present information. That aspect of the class made if different than just training people. In all honesty, that portion made some of our folks, the most nervous. They knew they were good operators, that they could do their jobs, but some were most unsure when they had to present that information to peers. People were listening to things they were saying. This was really an efficient way to hopefully ensure our operators and riggers were trained to a standard. The fact that we had 87 or more people from across 23 Districts and 8 Divisions is a testament to how committed USACE is in investing in our people, investing in our training, and committed to our safety program. But, there is no way, given current fiscal constraints that we could bring in every operator, every rigger to train them. We couldn't find a large enough facility, we couldn't afford it, and the training would be ineffective.

Q: Were you aware of "why" we conducted this training?

A: Yes. When I first came onboard, I sat down with all our major functional Chiefs and asked them to identify; major areas of concern, and where are we good. So when discussing safety with Mr. Wright, he identified that we had some major accidents with our crane and rigging program. He then became aware of our High Hazard Working Groups and our efforts. Numbers don't lie...the Working Groups have made a difference. We just need to keep working to improve our safety record. It's not about a spreadsheet its about our employees not getting injured or killed and the ability to work our Projects.

Q: When you had a chance to talk to the students, what were the biggest challenges they identified to you? If you don't mind sharing.

A: No, that's fine. There were two challenges. We're all very, very busy. Getting time to train is hard to come by. There was a good deal of appreciation shared by the students for being allowed to come to the training. They appreciated that USACE was able to find the monies to make it happen. That was a good news story. Time away from the Project is important. The other challenge was that, EM385-1-1 is pretty darn clear yet I heard the same thing over and over again during the week ... "well, that's not quite the way we do things here."

When it comes to safety, we shouldn't be deviating (from the standard) because we think we're unique. If there is some reason you cannot follow a procedure or a regulation then they need to contact our safety office in headquarters and we need to look at changing the regulations. Our Projects are all very important, but they're not all that different. That's not an excuse to deviate from the regulations. Getting people back to the standard, is so important. We don't grow all of our crane operators internally, we hire people from the outside. They bring with them some of those practices in from the civilian world that don't meet the OSHA or EM requirements and if we don't correct them and force them to comply with our standards then what we've unintentionally done is accepted a new standard. We have to draw that line that says you now work for the United States Army Corps of Engineers. We have standards that are industry accepted standards and if you don't comply with them, then you go work somewhere else. We all have to be on the same sheet of music. There are lives at stake.

Q: Were there portions of the class that you observed a need to ... dig deeper, bring some additional discussion to the table, make improvements on?

A: One area where I think we can improve...Crane and Rigging operations can be a lot more technical than the average person may expect. Sling angles, Working Load Limits. I know that the folks in the class received a lot of training aids to take back with them that will help them. But some of the things taught like sling angles require a certain level of geometry. So, those training aids were a great idea in fact, I like to see us have standardized training aids for our employees. They need to be in the hands of the right people.

We are the United States Army Corps of Engineers and the Army has a large crane program that provides graphic aids, free of charge to us. We have an account at Ft. Belvoir that the Army provides resources to us...free of charge.

We want a product that ties us into the Army values.



Interview with CSM Groninger - cont'd.

The Army trains crane operators and riggers, there's no reason why the Working Group can't work together with the Army to standardize processes and procedures. Sometimes we tend to operate as the Corps of Engineers but we're the Army Corps of Engineers and although we can tend to operate separately we are tied together.

Closing comments from the CSM ... for all those who attended. I hope they keep in mind that we sent them there for a reason. I hoped they learned a lot and that they had a good time learning a lot. I challenged them all while they were there to:

They have to Network because we don't expect everyone to know everything. Hopefully, they'll reach out to one another. You don't have to be the sole Subject Matter Expert for the Corps of Engineers, reach out and Network with you fellow operators.

Go back and talk to their 1st line leaders and their Supervisors and get training scheduled. We got them to a standard, now we need to get the rest of the folks up to that standard. If they go back and saw wow, that was good training but don't bring their programs up to our standard, then the money we spent wasn't worth it.

As the CSM brought our discussion to a close he emphasized the need to shout out to the Tennessee National Guard and their support of our effort. If we had to have rented a facility to accommodate this training, the training probably would not have happened. That was great support on their part.

As we've trained employees, they need to understand they are a part of the process. This is not OUR safety manual at the Headquarters, this is THEIR safety manual. We're not just in compliance with just the OSHA and other Federal Standards, these students need to have a say in OUR safety manual. We need their input.

Buy-in and ownership of the program will be the tipping point where we see the crane and rigging program being run by the employees. That's our goal.

High Hazard Working Group - Award

The Crane High Hazard Working Group received the Composite Risk Management (CRM) Team Award from the Department of Army for FY-12.

The Working Group received the Team Award based on performance and results achieved in FY-12

The award recognized that USACE has a robust safety program that manages risk to protect the lives and livelihoods of approximately 700 military, 36,000 DA civilians, 300,000 contractor activities and over 300 million public visitors to our lake and river facilities. Our high-hazard missions include operating and maintaining USACE civil works infrastructure and hydropower generation facilities, research and development, and public recreational facilities as well as overseeing contractor sites involved in such diverse projects as heavy construction, munitions remediation, hazardous waste cleanup, commercial diving, disaster recovery, and dredging.



The plaque reads ... "For your significant contribution to Army Safety by employing Composite Risk Management to create an accident free work

environment. Your efforts set standards for others to emulate and are a reflection of your dedication to duty and determination to complete the mission at hand in a manner conducive to protecting Army resources."



From the Chief of Safety to the Working Group...thanks for all of your efforts.

The Crane Working Group is comprised of:

Ellen Stewart CESO Jerry Balcom Dave Stanton John Cannon NWP Kevin Harvey NWP Arthur Kunigel NWP **Kevin Vessels** James Sowell MDC Greg Lee

CESO NWP

> LRL LRN

The Crane Working Group is thankful for the support we've received across the organization in improving our Crane and Rigging program. Our goal, our desire, and our vision is to make our Crane and Rigging program, the best. We thank you for your support!

From left to right: Richard Wright, Chief of Safety, HQ; Jerry Balcom, James Sowell, Kevin Vessels, Kevin Harvey (Red), John Cannon (Boom Boom) and Ellen Stewart. Not pictured: Dave Stanton, Art Kunigel and Greg Lee.



APPOINTMENT OF TRAINERS

Per OPORD 2011-82, "If training of any type is performed by in-house resource(s), trainer(s) and type of training being taught must be identified, and trainer(s) qualifications included. Qualifications shall include resume' as related to what is being taught, and any related qualifications or certifications that he/she holds that qualifies him/her to teach this subject matter to others [see EM 385-1-1, Change #6, 16.B.04.a(3)(a)]...."

The purpose of the TTT class was to provide in-house trainers for USACE personnel. The Crane High Hazard Working Group (HHWG) reviewed requests from district personnel for pre-qualification to participate in the training. The HHWG reviewed the individual's qualifications, resumes, competencies, and experience. Based on this review, 87 employees attended the training.

After completing the TTT course, the trainers were certified by the HHWG as trainers on the appropriate type(s) of equipment the individual was qualified to teach others on: Class I, Class II, Rigger and Signal Person, Initial and/or Refresher. They returned to their projects and were designated by their District Commander as in-house trainer for their project, District or Division.

UPDATE:

Of the 87 persons attending the TTT class, only 35 have been designated by their District Commander as an in-house trainer. The remaining trainers MUST be designated in writing (copy forwarded to Ellen B. Stewart). No training shall be performed by these trainers until this designation memo has been received by HQ.

TRAINING.

Trainers have been providing operator, rigger and signal person training to their co-workers using the TTT materials received in class. Trainers will be able to upload information on their trainees to the Share Point Site in the very near future and this database will serve as a master repository of information for all our USACE crane operators, riggers and signal persons.

As a trainer, if you are in need of a training kit or kit materials, contact John Cannon. End-of-year funds were used to purchase kit materials for those of you that submitted a request and you should receive your materials in the next couple weeks.

As you are instructing your class, if you identify information, tools, resources that can improve the class materials, contact the HHWG. It will be the responsibility of the HHWG and the Trainers to maintain the training materials and curriculum.

FUTURE TRAINING.

The HHWG is trying to schedule a 2nd Train-the-trainer Class in 2nd quarter of FY14. Depending on budgetary restraints and travel restrictions and NEED, we may be able to make it happen. We are asking that Operations Division and Safety & Occupational Health Offices work together to determine an estimate of number of in-house personnel that would attend. Please contact Ellen Stewart for further information and/or with an estimate!

COUNTERWEIGHT -PG.6

OVERHEAD CRANES ... WHAT DO I HAVE?

Overhead crane, jibs, hoists, pendant-controlled, remote-operated....there has been a good deal of confusion in regards to Class I and Class II cab-operated and remote-operated overhead cranes. We have clarified the classifications and functions of these cranes in the 2013 EM 385-1-1. DID WE? What do you think?

Class I crane/hoist types:

- Fixed cab telescopic hydraulic mobile cranes;
- Swing cab telescopic hydraulic mobile cranes;
- Lattice boom, truck or crawler cranes;
- Cab-operated overhead, bridge, gantry, under hung and monorail cranes;
- Remote-operated (wireless) overhead, bridge, gantry, under hung and monorail cranes over 30 T capacity:
- Hammerhead cranes;
- Portal cranes;
- Tower cranes;
- Derricks post or stiff leg type;
- Floating or barge-mounted LHE, temporarily or permanently mounted, over 35 T (requires a NA load chart per 16.L).

EXEMPTION: Cab or remote-operated cranes, regardless of capacity, that lift gates that remain in the slot are considered Class II.

Class II crane/hoist types:

- All hard-wired, pendant-mounted operated overhead, bridge and gantry cranes;
- Remote-operated overhead, bridge, gantry, under hung and monorail cranes 30 T capacity or less;
- Cab or remote-operated cranes, regardless of capacity, that lift gates that remain in the slot;
- Under hung;
- Monorail;
- Pedestal;
- Wall-mounted jib cranes.



Cab-Operated Class I Overhead Crane



Remote-Operated Class I Overhead



Pendant-Operated Class I Overhead

FY14 Prospect Crane Safety #032 Classes.

These classes are in Huntsville, AL and are appropriate for ANYONE working in or around cranes or hoists. This class is a recommended pre-requisite class for all operators, riggers and signal persons.

- October 2013 class rescheduled for 10-14 February 2014

- 7-11 April 2014
- 16-20 June 2014

Don't forget to check the Crane Share Point Site for pictures, Counterweights and other information. Go to this link:

https://cops.usace.army.mil/sites/S/default.aspx

COUNTERWEIGHT

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