US Army Corps of Engineers

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ENGINEERING & CONSTRUCTION NEWS

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IF YOU WOULD LIKE TO CONTRIBUTE ARTICLES OR HAVE SUGGESTIONS FOR FUTURE ARTICLES, PLEASE CONTACT DENISE MASSIHI, CEMP-EC, 202-761-1380 OR CHARLES PEARRE, CECW-EP, 202-761-4531

CARL'S NOTES

As we combine our Civil Works Engineering and Construction News into a single Headquarters, publication, I look forward to continuing to provide the most current information to assist the districts in the execution of Civil Works projects. CECW-E will be using the same process to provide input to the new combined publication as we have the last three years with our Civil Works Notes. The combined Notes will reduce the number of messages sent each month while continuing to provide a library of past Notes through the Engineering and Construction Division home pages.

We continue to work with Planning Division and the Directorate of Resource Management to finalize the Private Sector Contracting Goals for this fiscal year. We have a briefing with the Director of Civil Works scheduled for 17 December and should be able to provide final MSC targets shortly thereafter. As indicated in my 29 October 1998 message to the MSC DETS, each division should plan on executing their program as shown in their district FORCON submissions. This will provide sufficient contracting to meet the 35% Planning and 40% Engineering targets for this year.

Looking ahead, I hosted an offsite strategic planning meeting 12-13 November at Ft. Belvoir for CECW-E team members. Our objective was to initiate the process of determining the functions, processes and structure for CECW-E as we move into the 21st century. A lot of great ideas surfaced on how to ensure that we continue to support you as we all maintain our vision of remaining the world's premier engineering organization. As I mentioned in an earlier edition of these Notes we, and that includes headquarters, must continue to evolve. If we are to be relevant we must continue to question who we are, what we do and where we should be going. "*The scarcest resource in the world today is leadership talent capable of continuously transforming organizations to win in tomorrow's world*" –Noel M. Tichy, *author of the Leadership Engine.*

I invite all of you to help us answer the above questions. We need your input. Over the next couple of months, my staff will be developing the details of our plan for the future. I will keep you informed of our progress. I would also like your feedback on the form, length, and contents of these combined notes. Send your comments to Charles Pearre at Charles.Pearre@usace.army.mil.

DWIGHT'S NOTES

Welcome readers to the first edition of the joint military/civil works Engineering and Construction News. Carl Enson and I hope this format will better serve you than the separate newsletters you have received in the past. This more comprehensive technical coverage of our business areas will allow you to one stop shop for information pertaining to your discipline, functional area, and career. We would appreciate your contributions to future newsletters so we can truly make this document YOURS.

Carl and I came back to HQUSACE from the field, Carl from the West Coast, me from the Midwest, a few weeks apart this past August. Each of us has in depth experience in the engineering and construction functional areas of the Corps. We team together frequently, not only on E&C day to day matters, but on strategic issues as well.

DWIGHT'S NOTES (CONTINUED)

We are also card-carrying members of the Project Delivery Team working closely with our PM counterparts. This disciplined team building ethic is a prerequisite for all of us if we want to be effective in today's U.S. Army Corps of Engineers.

I continue to spend a large portion of my workweek staying connected with the field, with our industry, and with our customers. I'd like to share with you from time to time some observations and, if you don't mind, some advice based on these experiences. For this time I have one construction and one engineering topic to explore. First construction:

In the past three months I've attended three functions with the Associated General Contractors (AGC) organization and have visited several Corps field offices and construction project sites. A major conclusion I have drawn, one echoed by AGC and the Corps leadership, is that the Partnering Concept that we invented together, and is now adopted by many industries throughout the nation, is being foregone or becoming too routine, even passe'. We can't let that happen. If we allow our partnering endeavors to become just one more check on the CM checklist we will be doing a disservice to our customers. I want you to continually, project by project, form sound business relationships within the Corps Project Delivery Team and with customers and contractors using the partnering process. This is Commander's business, it is everyone's business. In January a special team of Corps and AGC representatives will meet to begin the process of reengineering the Partnering Concept. With the Chief's strong endorsement, we will attempt to achieve a second breakthrough in relationship building between government/owner and industry/contractor, a breakthrough that will hopefully take hold as convincingly as did partnering. I solicit your advice and ideas to help guide us in this endeavor. Email will do.

Engineering could use a rebirth as well. There is little argument that the traditional role of Engineering Divisions has undergone significant change. The maturing of the PM business process, establishment of Regional Management Boards, and relentless pressures to contract out engineering work are reshaping the Corps engineering business environment. Yet these same factors are revolutionizing others as well. The new roles of MSC and Districts in a regional business center context touches everyone, including HQUSACE. Functional regionalizations have produced radical surgery on our HR and F&A resources. Contracting out has forced many line and staff functions out of house, the most telling of which being the DPW functions at our Army installations. We are all caught up in these major change drivers. Where will it end?

For Engineering it will end in one of two places. Once proud robust engineering staffs in districts could continue to be eroded by the forces of consolidation, regionalization, and privatization, until they exist in name only. Some might say, with some truth, that a few districts are there already and a few others are teetering on the brink. This process has already consumed other technical strongholds such as Planning, Real Estate, and even Construction to varying degrees. One can argue that this process is a function of decreasing workload in these business areas. Others can argue it is due to systemic changes in business process. Both may argue that this process and its end state are inevitable.

Alternatively, Engineering could be reborn in the Corps with its professional image intact. Engineering (including the architectural and scientific professions) is a competency inherent to the "brand name" U.S. Army Corps of Engineers. Thought of in these terms Engineering is not an organization (i.e. stovepipe), or a function (i.e. business process), it is instead the professional character (i.e. essence) of the Corps. Engineering professionals currently populate many key functional stovepipes and lead many key business processes in the Corps. One could argue that we arrived in these positions as much from the strength of the Engineering Division organization, which dominated many districts, as we did from individual merit. In the future, if engineering professionals are to maintain their leadership in the Corps it will be entirely through individual merit, not through strength in numbers or positional power. We have to earn it.

I AM COMMITTED TO THE REBIRTH OF ENGINEERING IN THE CORPS.

How can we achieve this? Not by guarding at all cost the Engineering Division organization, the in-house design business process, or the Project Management career field. We will do it by being the best engineering professionals we can be. This great problem solving organization (USACE) will always need top notch people

DWIGHT'S NOTES (CONTINUED)

trained in the scientific method. USACE must preserve relevant knowledge and experience that can be brought to bear on our nation's and other nations' engineering problems, whatever those problems may be. PMs must be able to bring to the client's table a portfolio of high caliber technical people that have achieved master status if the Corps is to compete successfully in the engineering marketplace.

Therefore it is incumbent on us to ensure our technical workforce (and ourselves) is well grounded in today's professional knowledge and is constantly learning or inventing new tomorrow's. It is our charge to create lasting opportunities for young professionals to gain valuable engineering experience and develop into the stars in our technical portfolio. We must also help those so inclined to qualify as leaders in other fields such as construction, project management, operations, planning, business development, public works, installation management, or contracting. It is our duty to provide enabling technology and expertise for them to use to solve customers' problems. And it is our Corps and our Army's need that we actively seek leadership positions in professional and academic organizations. This is how we stay networked with other professionals and help maintain the Corps "brand name" reputation as "The world's premier engineering organization".

HQUSACE is currently examining its leadership role in this regard. We are also taking immediate action to advance this cause. This month a team of Army civilian engineers and scientists will meet to reengineer the CP-18 career program doctrine through a brand new ACTEDS. The new ACTEDS will guide the development of our engineering and scientific workforce for the next generation. The CP-18 Career Planning Board will also meet shortly to evaluate the first class in the new Leadership Development Program which will develop promising technical specialists into highly qualified professional leaders. We will use these vehicles, and others, to begin the process of institutionalizing a re-born Engineering profession in the Army.

I ask you to be devoted to the Corps professional workforce and image. Provide the practical opportunities and nurturing environment in which we can continue to attract and develop our engineering and scientific professionals. Serve as the technical enabler on the project management team so we are the best problem solvers in the world. We must visibly project the professional image of the Corps with the outside world through leadership in technical societies. This is OUR VISION.

ESSAYONS!

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NOTE: THE FOLLOWING SECTION WILL BE A REOCCURRING COLUMN THAT WILL HIGHLIGHT OUR PARTNERSHIPS WITH VARIOUS PROFESSIONAL ORGANIZATIONS. AS DWIGHT'S NOTES ABOVE HAVE STATED FORMING PARTNERSHIPS AND BECOMING "NETWORKED" INTO PROFESSIONAL ORGANIATIONS WILL HELP THE CORPS MAINTAIN THE REPUTATIONS AS "THE WORLD'S PREMIER ENGINEERING ORGANIZATION".
WE WILL SOLICIT YOUR IDEAS / ARTICLES FOR THIS COLUMN

PROFESSIONAL PARTNERSHIPS

BEST VALUE FORUM WITH AGC

On 23 November 98, a group of senior officials of the Corps met with the Associated General Contractors of America (AGC) in Dallas, Texas to discuss the institution of recent changes to FAR Part 15, and Best Value contracting. The meeting was held at the request of the AGC which is meeting with various Federal agencies regarding the conduct of the source selection process, techniques, and the use of past performance in selections on negotiated construction contracts. The AGC noted that RFPs were in widespread use across the government at this time, and that their membership was concerned about preserving the fairness and integrity of the procurement process. They maintain that the design-bid-build procedures are the premier project delivery methodology for construction. Their key points were that sharing of information on procedures and individual solicitations gives increased credibility to the contracting agency, and that ambiguities in bid documents should be reduced as much as possible so that bidders do not encounter surprises later in the process.

Corps representatives responded that they were honest brokers, and had the concern of construction contractors in mind, as well as the benefit received by the taxpayers. The Corps said that RFP procurements were useful in a wide range of circumstances, where past performance is a critical factor in selection, special management skills were needed on complex systems, and often where discussions with contractors were necessary prior to award. The Corps went on to say that the best value procedures were still evolving, and that these were exciting times of change. The AGC responded that contractors needed to know the rules, in order to provide the best overall proposal on our project solicitations. They asked if the government could not get the best value by simply using technical and price factors. Finally, a prime concern of the AGC was discussed as regards the use of questionable sources for past performance information. Corps attendees responded that we used our CCASS system almost exclusively for input into this evaluation factor. The contractors stated that the only thing the AGC was looking for is for all of its members to get 'a fair shake' in the process. Minutes of the meeting are being prepared, and will be distributed to DETS once approved for release.

POC: JEFF KRULL, PE, CEMP-EC, 202-761-1443

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PARTNERING WITH THE AMERICAN CONSULTING ENGINEERS COUNCIL

On December 1, 1998, we hosted a partnering meeting with ACEC. We have had a formal partnering agreement with ACEC since October 1992 (the first such agreement with a national organization). We meet several times a year to discuss topics of mutual interest. ACEC is a national trade association that represents the business interests of over 5500 engineering firms. Some highlights of the meeting are summarized below. Complete minutes will be sent to all Directors and Chiefs of Engineering in late December.

The majority of the meeting was devoted to a review of USACE programs. We illustrated that the overall USACE program is relatively stable, although the specific areas of work fluctuate. We discussed the growing trend for privatization of the military infrastructure. This concept will change the role of consulting engineers, who will be working with developers and property management firms, instead of directly for USACE. The USACE representatives stressed that most of our planning and engineering work is performed by private firms.

ACEC presented a draft position paper on Foundation Principles for Value Based Delivery Systems. This paper recognizes the need for owners to select from an increasing number of delivery methods as long as the method promotes quality and embodies trust, communication, responsiveness, and integrity. USACE agreed to participate in a workshop with ACEC, other industry organizations, and other agencies to discuss the advantages and disadvantages of various project delivery systems.

Next, we discussed the Federal Activities Inventory Reform (FAIR) Act of 1998. This act requires agencies to list the activities, with associated FTEs, being performed by Government employees which are not inherently governmental functions. This list must be provided to OMB and Congress, and made available to the public. We advised ACEC that we have been reporting similar information to Congress under 10 U.S.C. 2461 for several years, and are awaiting specific guidance from DoD and Army on reporting under the FAIR Act. Finally, we discussed the Y2K issue. We provided ACEC with copies of our recent technical and contracting guidance on this subject, and explained that all of our current contracts are being evaluated for Y2K compliance.

We have found our national partnership with ACEC to be very productive. We are also pleased to see that many divisions and some districts are partnering with the state-level ACEC organizations. We encourage all divisions, in cooperation with their districts, to develop and sustain regional partnerships with professional organizations such as ACEC, whose members have a vital role in our mission success.

POC: DON EVICK, PE, CEMP-EC, 202-761-1053

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CONSTRUCTION INDUSTRY INSTITUTE (CII) OFFERED TRAINING

CII offers two types of education products: FasTrack Education Resources and Education Modules to assist you in implementing best practices of the construction industry. These products can be adapted to suit your environment. Uses include teaching in large groups at a training center or in small project teams at site, using single, or multiple topics, integrating into existing courses, or as stand-alone instructions. Most of the training is focused on engineering, construction, and project management. CII has alliances with Arizona State University, Clemson University, and the University of Texas.

The following courses are available: "Building the Project Team," "Pre-Project Planning, including Project Definition Rating Index," "Design Effectiveness and the Objectives Matrix," "Project Constructability," "Construction Safety - Zero Accidents," "Performance Management," "Optimizing Project Schedules," "Work Packaging For Project Control," "Construction Planning For Start Up,"and "Managing Small Projects. You can contact Gary Aller at Arizona State at 602- 965-5324, Frank Eskridge at Clemson University at 864-656-4183 or Jesse Pfeiffer at University of Texas at 512-471-3396 or CII at 512-232-3009 for more information. CII is expecting to release eight additional education modules in 1999 to include subjects as "Life Cycle Analysis," "Project Scope Definition and Control," "Developing, Implementing, and Managing a Partnering Relationship," "Planning For Startup II," "Owner/Contractor Work Structure," and "Contractor Compensation."

POC: MOHAN SINGH, CEMP-ET, 202-761-0211

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UPDATE ON ASHRAE IAQ/VENTILATION STANDARD

The American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) is currently working on a number of issues that will impact Corps of Engineers design and construction criteria. One of the most heavily discussed in the industry right now is Standard 62 - *Ventilation for Acceptable Indoor Air Quality.* This standard specifies minimum ventilation rates and acceptable indoor air quality and is intended to minimize the potential for adverse health effects. This standard defines the roles of and minimum requirements for ventilation system design, operation, and maintenance; contaminant source management; and air cleaning intended to provide acceptable indoor air quality in commercial, institutional, and high-rise residential buildings.

This topic has generated numerous research projects and is resulting in many creative design approaches to insure compliance. One result of this is that new building codes are starting to require active measurement and/or control of outside air admitted to buildings. For the popular VAV system, the emerging designs to insure adequate ventilation involve either (i) the provision an 'injection fan' or, (ii) a flow measurement device and motorized damper controlled to admit a set amount of outside air. Obviously, increasing ventilation makes it more challenging to satisfy energy efficiency goals and criteria. For this reason, methods for measuring and controlling demand based on CO_2 measurements are also being researched and fielded in newer designs.

The 1999 ASHRAE Winter Meeting will be held in Chicago on 23–27 January. In addition to a full technical program, this meeting will also host the popular *International Air-Conditioning, Heating, and Refrigerating Exposition,* held on 25–27 January. Reports from ASHRAE say that this will be the biggest product show in ASHRAE's history, and one of the biggest product shows of any kind ever held. For additional information and ongoing ASHRAE activities, you can access ASHRAE Online at http://www.ashrae.org.

POC: LARRY LISTER, CECER-FL-E, 217-373-3379

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USACE TO ESTABLISH A "REGISTRY OF CONSULTANTS"

On 10 Nov. 1998, MG Genetti approved the concept for the creation of USACE-wide Registry of Consultants. This registry is derived from the Skills Inventory and Experts Registry concept tested by SAD. The Registry of Consultants is intended to be a repository of information on the experience and skills of USACE team members who are qualified to serve as expert consultant in their fields. Individuals will be designated by supervisors, peer groups, and commanders for induction into the Registry. Details of the concept are under development and more information will be available in the next couple of months. The first phase of the Registry of Consultants will include team members in the CP-18 series and the following phases will encompass other series.

POC: RAY NAVIDI, PE, CEMP-EC, 202-761-0223

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REVISED ENGINEER REGULATIONS ON CONCRETE MATERIALS

ER 1110-1-2002, Cement, Slag, and Pozzolan Acceptance Testing, and ER 1110-1-2005, Compilation of Concrete Aggregate and Stone Riprap Test Data, have been revised and issued recently. The revisions reflect the current changes in the Corps organization structure and practice but the major change is in the charges of the testing. The original ER 1110-1-2002 required an extensive report from all districts on the amount of concrete used each month with district charges based on tonnage used. The revised ER eliminates the monthly tonnage report and charges the users on a per-sample basis.

The revision of ER 1110-1-2005 reflects the changes in the Corps laboratory system. With the closing of six division laboratories, the data submission responsibility is the district engineers. This data is no longer available in hardcopy but is available in CCB and Internet as well as CD-ROM upon request. Please note that ER's will no longer be distributed in hardcopy; however, they can be printed from the Internet at http://www.usace.army.mil/inet/usace-docs/eng-regs/.

POC: M. K. LEE, CECW-EG, 202-761-0412

WATER CONTROL DATA SYSTEM (WCDS) MODERNIZATION

The WCDS modernization project is upgrading the information system that supports execution of the Corps water control management mission. The effort to update existing and develop new software began in earnest in FY 1997 and scheduled to be completed in FY 2001. Development and deployment is planned so that an initial full featured but limited capability version (Version 1.0) will be deployed at selected Corps field sites (Baltimore District, Huntington District, Omaha District, and Northwestern Division - North Pacific Region) in the first half of FY 1999. Version 2.0, with additional planned capabilities and improvements reflecting Version 1.0 field experience, will be deployed to the initial deployment sites plus a few additional sites in the first half of FY 2000. The completed system (Version 3.0) with all planned capabilities and reflecting field experience with the previous versions, will be deployed to Corps water control management sites beginning in mid FY 2001 and be completed by the end of FY 2002.

The WCDS modernization project is managed by CECW-EH (Pete Juhle, Acting Program Manager); System Developer is the Hydrologic Engineering Center (Darryl Davis, Director) with participation by Remote Sensing/GIS Center of CECRL and selected field offices. Information about the modernization project and specific information about deployment is located at http://cw71.cw-wc.usace.army.mil/cwcinfo/cwc.html. A prototype of Version 1.0 may be accessed and executed via this web site or via HECs web site at http://www.hec.usace.army.mil. Contacts for further information about the WCDS modernization project are Pete Juhle or Darryl Davis.

POC: PETE JUHLE, CECW-EH, 202-761-8512

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DEPARTMENT OF THE ARMY (DA) FACILITIES STANDARDIZATION PROGRAM WEB LIBRARY OF DESIGNS

In 1996 HQUSACE initiated the task of providing worldwide access to standard design packages developed under the DA Facilities Standardization Program through the use of electronic media. In April 1997, an implementation group was formed consisting of representatives from HQUSACE, WES, Huntsville Engineering and Support Center, Savannah District and Norfolk District. This group developed the initial Web page format, procedures, and policies for access to standard design packages via the Internet.

The DA Facilities Standardization Program Web site was activated in July 1997 (accessible at http://cadlib.wes.army.mil/html/cos/cfusion/Mainpage.htm). This web site library is designed to centralize all programming, design criteria, recent applications and other pertinent information for specific standard facility types. Each facility type is electronically monitored and tracked to assist Centers of Standardization, HQUSACE POCs, and program proponents in providing instant access to complete and up-to-the-minute information. Web site users will have the capability of previewing and downloading standard design packages and recent project applications of the packages. This provides instant access to and cost effective distribution of CAD files, specifications, design analysis and cost data files. Another added benefit of this Web site is that it provides feedback links for real time lessons learned via instant e-mail.

As of October 1998, the DA Standard Design web sites are available for UEPH (barracks), company operations facilities, tactical equipment maintenance facilities, close combat tactical trainer, child development centers, fire stations, physical fitness facilities, and HAZMAT storage facilities. Facility Web sites scheduled to be placed on line in FY99 are enlisted personnel dining facilities, basic trainee barracks, brigade, and battalion headquarters, CIDC operations facilities and Army religious facilities.

POC: JEFFERY T. HOOGHOUSE, AIA, CEMP-ET, 202-761-1069

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TRAINEE BARRACKS STANDARD DESIGN.

In May 1998, TRADOC, the proponent for Trainee Barracks, presented an overview of the current Trainee Barracks conditions and issues, and stressed the need to update/revise the current standards, which were developed 10 years back. Trainee Barrack is among the dozens of facility-type standard designs that have been developed under the DA Facilities Standardization Program. Current standard (275,500 SF) - housing five company basic combat training battalion and cadre (1,180 soldiers) - no longer meets the 21st century training needs. Following ACSIM request for design update in June 1998, we held a functional/operational requirements meeting at Ft. Jackson, SC on 2-6 Nov 98. Based on the consensus of the participants (OACSIM, ODCPER, HQTRADOC, HQUSACE, Army Training Centers representatives), a list of functional requirements was developed for approval of the CG, HQTRADOC.

HQTRADOC chairs the Trainee Barrack standardization subcommittee. Tulsa District, Center of Standardization (COS), is leading the multi-district in-house design team, composed of designers from the Norfolk and Louisville Districts, and Huntsville Engineering and Support Center. A design charrette is scheduled for the week of 30 Nov- 4 Dec 98 at Ft. Monroe, VA. This design is being developed with a very accelerated schedule to meet the OACSIM established milestone dates and is anticipated to be completed by Feb 1999. Our initial focus is on basic combat trainee barracks, but we will start looking into other types of trainee barracks, for example Advanced Individual Training (AIT) barracks, Cadet barracks, Reception Station, once the current task is completed.

POC: AMI GHOSH, CEMP-ET, 202-761-8603

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SITE PLANNING AND DESIGN

The Technical Instruction (TI) 800-01, chapter 3, "Site Planning and Design Criteria" has been updated to include the following subject areas; Design Team, Area Development Plan, Installation Design Guide, Site Plan, and site design criteria. The site design criteria discusses architectural compatibility and orientation, vehicular circulation, Street Tree Program, privately owned vehicle parking, pedestrian circulation, erosion and surface water management, landscape design and planting, installation physical security, children's outdoor play areas, and planning and design in flood plains and wetlands.

A new section describes the Area Development Plan process as providing facility planning at the small area or sub-area level that falls between installation master planning and project site planning for single structures. The privately owned vehicle parking section discusses the authorized parking stall quantities by facility type and clarified the procedure for meeting user parking stall requirements. The Street Tree Program section describes the selection of tree species, selection factors, and determining species allowances for an area.

The TI 800-01, chapter 3, can be located on the Internet at: **http://www.hnd.usace.army.mil/techinfo/ti.htm**

POC: EDWARD P. RACHT, RLA, CEMP-ET, 202-761-8816

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A-E SELECTION NOTIFICATIONS AND DEBRIEFINGS

We have heard comments from several A-E firms concerning the timeliness and quality of selection debriefings. Hence, this article is intended as a "refresher" on the rules for notifying and debriefing A-E firms after selection.

The guidance on notification and debriefing is given in FAR 15.5 and 36.607, EFARS 36.607, and ER 715-1-20, A-E Contracting, paragraphs 3-12 and 3-13. Notifications shall be made within 10 days after selection approval. The notification shall indicate if a firm is the highest qualified, among the most highly qualified but not the highest qualified, or not among the most highly qualified firms. The notification will inform each firm that it may request a debriefing, but it must do so in writing or electronically within 10 days after receiving the notification.

There are two main objectives for a debriefing. First, instill confidence in the debriefed firm that the selection was conducted fairly and objectively in accordance with the announced selection criteria. Second, provide the firm with specific, meaningful information to allow it to improve its qualifications to better compete for future contracts.

A-E SELECTION NOTIFICATIONS AND DEBRIEFINGS (CONTINUED)

A debriefing should be conducted within 14 days after receipt of a request. Debriefings may be by telephone or in person, as mutually agreed. ER 715-1-20 presently does not restrict who can conduct debriefings. However, the forthcoming update of the ER will require that debriefings be done by a voting member of the appropriate (preselection or selection) board to better address technical issues. A debriefing will summarize the significant weaknesses or deficiencies in a firm's qualifications for the subject contract. A firm will not be compared point-by-point with any other specific firm, only with the other firms collectively.

Prompt notifications after selection and timely and thorough debriefings are important steps in the A-E contracting process. You must devote adequate time and attention to these activities in order to maintain the trust and cooperation of the A-E community.

Editorial Note: An article on A-E contracting will be included in each monthly newsletter. Hence, separate A-E contracting bulletins will no longer be published. The A-E contracting articles will also be posted in the A-E contracting website under the CEMP-EC homepage.

POC: Don Evick, PE, CEMP-EC, 202-761-1053

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STANDARD DRAWINGS AND SPECIFICATIONS FOR MAGAZINES

The standard drawings and specifications for earth-covered magazines have been revised. The main changes improved lightning protection for these facilities. It is essential that the floor slab to wall and across floor slab lightning protection electrical continuity be maintained. The methods are spelled out in the lightning protection guide specification Section 16670. Be sure to use the latest documents when designing the magazines.

DESIGN MANUAL FOR COLD-FORMED STEEL

The design manual for cold-formed steel is finally finished. The Technical Instruction (TI) will be titled TI 809-07, Design of Cold-Formed Loadbearing Steel Systems and Masonry Veneer/Steel Stud Walls. This TI is being placed on TECHINFO and will be available for use in January 1999. The date on the manual is November 1998. This document will be used for all cold-form steel design. The issuance and use of this TI will life the moratorium on the use of cold-form steel. Please note that all cold-formed loadbearing steel systems must use this manual for design. A tremendous effort of several of our Corps team was put into this manual and the resulting document will be a valuable tool for use in future projects. It is expected that the American Iron and Steel Institute (AISI) will adopt the TI as a national standard.

SEISMIC DESIGN

The Technical Instruction (TI) for Seismic Design For Buildings (new) is now complete and is being placed on TECHINFO. This TI will be available in January 1999. This is the latest seismic design information available and is line with the latest national standards. There are many changes in this document including new NEHRP maps with zones are no longer being used. Also, all areas of the country now require a seismic design, there are no "zone 0". The TI is a combination of two previous technical manuals, TM 5 809-10, Seismic Design for Buildings and TM 5-809-10.1, Seismic Design Guidelines for Essential Buildings. These TM's will be withdrawn when the TI becomes available.

Work has begun on TI 809-05, Seismic Evaluation and Rehabilitation for Buildings. This TI will replace the existing TM 5-809-10-2, Seismic Design Guidelines For Upgrading Existing Buildings. The TI will incorporate the latest technologies and methods available to rehabilitated the existing buildings. The TI is scheduled to be complete by the end of calendar year 1999. Until it is available TM 5-809-10-2 will still be our guidance. If useful information becomes available prior to the issuance of TI 809-05, it will be sent out to the districts

POC: Charles Gutberlet, PE, CEMP-ET, 202-761-4802

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Y2K COMPLIANCE TESTING

Madigan Army Medical Center (MAMC) personnel have developed test procedures to verify Y2K compliance of installed building control systems. The test procedures require that both complete systems and each individual component within that system be tested. Using such an integrated and comprehensive test program is the only method that will ensure that all building control systems will function properly throughout the transition into the next millennium. The first step is to survey all electronic systems, and then identify those components and systems that have potential Y2K problems. The next step is to obtain information from manufacturers, determine which components and systems must be tested, perform necessary testing, and determine appropriate repair or replacement strategies for those items or systems that fail.

To assure adequate testing and to prevent catastrophic failure of operational building control systems, it is important to check with the manufacturer before changing the date on any piece of equipment. Be sure to have a full and complete backup of all application programs and data, perform end to end system tests, including all interfaces, and have contingency plans when the unexpected happens. Some systems go into a failure mode when the date is advanced past 31 Dec 1999, or some other Y2K related date, that can only be corrected by reinstalling the operating system and all application programs and data. It is also important to test new equipment and systems to assure compliance, especially if the new systems interface with any existing equipment or systems. Since there are many dates that can cause a Y2K related failure, even equipment installed after 1 Jan 2000 must be tested, or the contract must require "date compliance" for the expected lifetime of the equipment.

POC: Bob Fite, CEMP-ET, 202-761-8626

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CORPS OF ENGINEERS SPECIFICATION STEERING COMMITTEE (CSSC)

Military Programs (CEMP-E) joined Civil Works (CECW-E) last fiscal year to charter the Corps-wide CSSC to provide policy recommendations to headquarters for improving guide specifications and project specifications. The CSSC is comprised of the two Notice Program Coordinators from CEHNC and CEMVK and one representative from CEMP-E, CECW-E, each division office, and 4 appointed districts.

The initial CSSC goal to combine the CEGS and CWGS into a single database was completed 18 Sep 1998. Specifications in the combined database are designated as CEGS, and all section numbers have been coordinated with the latest edition of CSI's MasterFormat. With a total of 403 specifications in the database, considerable effort was required from CEMVK and CEHNC to bring in the new CEGS system. The combined database has been available on-line on TECHINFO since September and was distributed this month on Edition 46 of CCB.

Two additional initiatives of the CSSC are expected to be completed in December and include the publication of ER 15-1-41 and ER 1110-1-8155. The former regulation will establish the CSSC as a formal USACE committee, and the latter will merge CECW and CEMP specification policy into one regulation, superseding ER 1110-2-1201 dated 30 June 1997 and Appendix D of ER 1110-345-700 dated 30 May 1997.

POC: RICK DAHNKE, CEMP-ET, 202-761-1203

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VALUE ENGINEERING: THE KEY TO HUNGARY

Mr. Bill Brown, Deputy Director of Military Programs, led a Corps delegation on a trip to Hungary in October. The trip was at the request of the Office of the Prime Minister of Hungary, and an outgrowth of a Jun 1998 meeting held at the SAVE International Conference in Washington, D.C. The delegation held separate meetings with the Office of the Prime Minister, and other agencies as well as the U.S. Embassy. Many common interests were discussed, and multiple areas of potential cooperation exist. The Corps has already received a letter from the Ministry of Environment, outlining potential areas of cooperation between the two countries, and the Corps can expect requests for one or two additional presentations. North Atlantic Division and Europe District now have the lead for this potential customer.

POC: MIKE HOLT, PE, CVS, CEMP-EV, 202-761-8738

DEPARTMENT OF ENERGY (DOE) AGAIN CHOOSES CORPS VALUE ENGINEERING ASSISTANCE

Great Lakes and Ohio River Division, Nashville District and South Atlantic Division, Savannah District worked together for DoE. The Office of the Chief of Engineers Value Engineering Study Team (OVEST), located in Savannah, Georgia was specifically requested by DoE to facilitate the review of the $1.3 billion Spallation Neutron Source Project. Over 50 representatives, from six major National Laboratories, three DoE Consultant Offices, the Stanford Linear Accelerator Center, DoE, and Nashville District participated in the OVEST facilitated review. The effort resulted in an additional 6.7 % in project cost contingency. Many proposals resulted in cost increases, but $87.4 million in net cost avoidance has been accepted, with an additional $15 million under review.

POC: MIKE HOLT, PE, CVS, CEMP-EV, 202-761-8738

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TRANSPORTATION SYSTEMS 2000 WORKSHOP

There is a tri-service Transportation Systems 2000 Workshop scheduled for 29 February through 3 March, 2000 geared primarily to DoD participants. The workshop is to be held in San Antonio, Texas. Sponsors will be the U.S. Army, Navy, and Air Force. The Federal Aviation Administration, while unable to be a sponsor, will participate with attendees and speakers. Participation has been requested of many industry agencies, including American Concrete Paving Association (ACPA), National Center for Asphalt Technology (NCAT), National Asphalt Paving Association (NAPA), Federal Highway Administration (FHWA), American Public Works Association (APWA), AREA, Asphalt Institute, SHRP Superpave Centers, Boeing, and the ASCE Airfield Pavement Committee. Other associations suggested include International Grooving and Grinding Association and Airfield Lighting Contractors Association. Please mark your calendars and save you training and TDY dollars for this once-every-three-years workshop. More information, particularly on how to submit papers for presentation, will follow in the near future.

POC: GREG HUGHES, CEMP-ET, 202-761-4140

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HVAC SYSTEMS TESTING ADJUSTING AND BALANCING-QV

Huntsville course #068 HVAC Systems Testing Adjusting and Balancing-QV was offered 16 to 20 November 1998. This course provides quality assurance personnel in the field with an understanding of HVAC systems functions and the testing, adjusting and balancing relationships of the complete system. This session, and all future sessions, includes a two-day lab at an AABC certified facility providing the student with exercises that demonstrate technical material and procedures necessary for field personnel to perform quality verification. Students were very positive about the course, especially the two-day lab. The course is recommended for all individuals that are involved with design, installation or testing of HVAC systems. The course is offered twice a year in Phoenix, Arizona. Each session, for the past several years, has been full making it important to sign up for the course early during the annual Huntsville survey. If you have any questions please contact Janine Wright at (256) 895-7455 or Gary Bauer.

POC: GARY BAUER, PE, CEMP-EC, 202-761-0205

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NEW HAZARDOUS/TOXIC AND RADIOACTIVE WASTE (HTRW) COST ENGINEERING WORKSHOP

To improve quality and accuracy of estimates, HQUSACE in conjunction with HTRW Center of Expertise has developed a two day HTRW cost engineering workshop for preparing HTRW remedial action (construction) and operation and maintenance cost estimates during all phases (assessment through completion) of a HTRW project.

The first workshop will be held in Omaha, NE on May 1999. If you have questions or need additional information about the workshop please call Mr. Jim Peterson of the HTRW CX at 402-697-2612 or Mr. Miguel Jumilla.

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COST ENGINEERING ASSESSMENT

EPA requested USACE perform an assessment of their cost estimating procedures and make recommendations for improvements. On August 18, 1998, a USACE team organized and led by Walla Walla District started a cost engineering assessment of EPA. The objectives for this assessment are:

1) Perform independent assessment of cost estimating procedures, tools and supporting data.

2) Evaluate procedures and processes for arriving at approved work assignment budgets.

3) Provide HQEPA with recommendations for cost preparation improvements.
4) Provide EPA regional offices with recommendations for cost preparation improvements.

USACE will perform an inventory of cost procedures used at all ten regional offices. As part of this review USACE will conduct an independent assessment of EPA cost estimating policies, procedures, automated cost estimating systems, supporting databases, and routine work practices of the 10 regions. The review will focus on estimates performed and used to issue Superfund project work assignments.

The USACE assessment is scheduled to be completed by 15 January 1999 and final report by 31 March 1999. The USACE team is composed of cost engineers, project managers, and technical engineers from Walla Walla, Omaha, and Jacksonville districts. Mr. Kim Callan, Chief Cost Engineering Branch, Walla Walla District serves as the project manager for the team.

POC: MIGUEL JUMILLA, CEMP-EE, 202-761-1359

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UPDATE ON LMI CONSTRUCTION MANAGEMENT S&A STUDY

LMI has been contracted to assist in conducting the S&A CM Study. The purpose of this study is to improve the effectiveness, efficiency, and customer satisfaction of USACE construction management (CM) business processes. A part of the study is to analyze field performance at 4 districts (Louisville, Omaha, Seattle, & Jacksonville). The first visit to Louisville was completed on 19 November and initial objectives were met. The team will visit Omaha in Dec and Seattle and Jacksonville in Jan. LMI will issue a final report in March/April timeframe with recommendations to improve the S&A CM processes/policies. These recommendations will be formally staffed at HQ before any implementation in the field. "Good ideas" identified during the process will be analyzed and, if appropriate, will be recommended for immediate implementation prior to the final report.

POC: PETE ALMQUIST, CEMP-EC, 202-761-1258

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ESTABLISHING A NEW DX FOR POL SYSTEMS

POL (petroleum, oil, and lubricants) system design requires specialized knowledge and can be quite complex. Because some Corps design offices have few POL projects, the unique expertise required may not be available at every location. CENWO has designed and constructed a number of high quality POL projects and is currently updating the standard design for hydrant fueling systems. This experience and expertise can be a significant benefit to other Corps districts in the planning, design, and construction of POL systems. To better serve Corps customers, CENWO is recognized as a leading expert for POL systems and will be included in the Corps Directory of Experts. The use of the POL DX is voluntary and service is provided on a reimbursable basis.

POC: DALE OTTERNESS, PE, CEMP-ET, 202-761-8621

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PROFESSIONAL REGISTRATION

This is a continuation and clarification of an article in the November Civil Works Engineering and Construction Notes. That article addressed the Division Chief positions in combined Engineering-Planning and Construction-Operations organizations.

On the Engineering side, there are two positions that require professional registrations in either a combined Engineering-Planning organization or any other engineering organization, with the first being the Chief, Design Branch, and the second being the Chief, Hydraulics and Hydrology Branch.

On the Construction side, all Area and Resident Engineer positions require professional registration in accordance with AR 690-950. In addition, where the construction organization is combined with other organization structures in the district or field office levels, the first level below the combined supervisory level that is responsible for the construction unit requires professional registration. In recent years we have seen a number of organization structures formed that combine functions to meet special needs. An example of combined positions could be the Chief of Construction Operations Division in the district, or a Lake Manager (or other similar job description) in the field with significant construction work. In these cases the Chief of Construction Branch in the district or the Chief of the Construction QA unit in the field would require professional registration.

POC: CHARLES PEARRE, PE, CECW-EP, 202-761-4531

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