

**Minutes of the National Sign Advisory Work Group
Headquarters, U.S. Army Corps of Engineers
Tuesday and Wednesday, 17 – 18 June 2003**

Attendees:

Dennis Wallace, Kansas City District, Northwestern Division
Debra Stokes, Natural Resources Management Branch, HQUSACE
Michael Kidby, Navigation and Operations Branch, HQUSACE
Tim Grundhoffer, National Sign Standards MCX, St. Paul District
Michael Owen, Fort Worth District, Southwestern Division
Duane Johnson, Sacramento District, South Pacific Division
David Johnson, Pittsburgh District, Great Lakes and Ohio River Division
Henrik Strandkov, National Sign Program Manager, St. Paul District
Jeffrey Mangum, New England District, North Atlantic Division
Scott Strotman, Rock Island District, Mississippi Valley Division

Introduction. Dennis Wallace, Chair of the Sign Advisory Work Group opened the meeting. Henrik Strandkov, National Sign Program Manager, introduced the newest member of the Work Group, Jeff Mangum, who has replaced Greg Mollenkopf as the representative of North Atlantic Division. Debra Stokes and Mike Kidby, HQUSACE co-proponents of the National Sign Program, welcomed the group members to the meeting. Stokes, in turn, was welcomed back to the Work Group, having replaced Judy Rice as co-proponent following a partial reallocation of responsibilities among Natural Resources Management Branch staff.

Stokes gave a brief overview of current non-sign issues in Operations Division at HQUSACE. The Critical Incident Stress Management (CISM) program will be implemented to help employees deal with traumatic incidents. There will be an important partnering conference in Los Angeles in November 2003 called “Partners in Stewardship.” The seven major federal land management agencies will attend, along with other organizations. The Corps will be sending up to 100 people. The new chief of Operations is Mike White; Mr. White has previously served in both Northwestern Division and Great Lakes and Ohio River Division.

Sign Work Group membership. It was noted that a permanent representative from the Office of the Chief Counsel (OC) is still needed on the Work Group. Stokes reported that OC has not yet hired a new attorney who would carry out this assignment. It was suggested that we might wish to craft the agendas of future meetings to provide some flexibility for attendance by HQUSACE members of the group.

Safety Manual. There has been progress concerning the discrepancies between the sign and safety manuals. At a recent meeting, George Tabb, Chief, Natural Resources Management Branch, and Robert Stout, Chief, Office of Safety and Occupational Health (SO), addressed the following issues:

Signs marking nonpotable/unsafe drinking water. Section 02.B.07 of the proposed safety manual requires that outlets dispensing nonpotable water will be conspicuously posted "CAUTION - WATER UNSAFE FOR DRINKING, WASHING, OR COOKING." The sign manual specifies sign CMP-06 (p.7.14) for nonpotable water that should be used only for flushing tanks. CMP-06 reads, "'Cleaning Water, For cleaning and flushing tanks only. Unsafe to drink."

It was agreed to resolve this issue by adopting a solution that had been proposed earlier by Work Group chair Dennis Wallace. Under this solution –

- SO will insert a statement into the safety manual that authorizes the use of sign CMP-06.
- The National Sign Standards Program will adopt the sign in the proposed safety manual as an approved Caution sign to be used in locations other than the sanitary dump stations at campgrounds.

No smoking/no open flame signs. The proposed safety manual requires sources of ignition to be posted "NO SMOKING OR OPEN FLAME". The comparable sign in the sign manual is found on page 11.4. It is a danger sign (SDA-04) and reads "Danger, No Smoking, Matches or Open Flame"

It was agreed to adopt an earlier recommendation from Wallace. We will delete the word "Matches" from sign SDA-04. (The rationale is that many people carry matches or lighters in their pockets and don't pose any danger. The danger is in the active ignition source.) The SO will add the heading "Danger" to the sign specified in the proposed safety manual. The sign, as specified in both manuals, will now read, "Danger, No Smoking or Open Flame."

Danger signs on unattended floating plant. Section 08.A.14 of the proposed safety manual states, "Warning signs shall be placed on unattended Government-owned floating plant and land based heavy equipment accessible to the public and shall read DANGER NO TRESPASSING US GOVERNMENT PROPERTY." The National Sign Standards Program discourages using the "Danger" heading for other than safety signs; that is, signs that alert the reader to a hazard to person or property. For preventing access to floating plant and other property, the sign program provides a standard sign (REG-04) that reads, "No Trespassing, U.S. Government Property." Alternatively, sign WRE-22 could be used ("Restricted Area, Keep Out") or a custom sign with the "Restricted" heading and an appropriate legend.

The SO will revise the proposed safety manual to align more closely with the sign manual specifications.

Confined space signs. The wording of the signs in the safety manual and the sign manual do not agree. This issue requires further coordination between the SO and the National Sign Standards Program.

Safety sign format. The proposed safety manual describes in detail the formats to be used for "Danger," "Warning," "Caution," and "Notice" signs. These descriptions, which are taken from current specifications of the American National Standards Institute

(ANSI), differ from the formats required by the Corps sign program. This is a complicated issue that the SO will continue to review. The SO has requested copies of any documentation in the sign program files that contain Corps Counsel's opinion that our Sign Standards Manual exceeds the ANSI requirements. The MCX will search through the historic files for the necessary documentation.

There was some additional discussion about OSHA and ANSI standards; format differences between Corps safety signs and those used elsewhere; and whether the Corps should distinguish between safety signs intended for viewing mainly by the public and those for viewing mainly by Corps employees in work spaces.

Use of the Corps Signature on directional signs. As directed at the last meeting, the MCX has prepared a memo recommending that the Corps Signature (the castle logo with "U.S. Army Corps of Engineers" beneath it) be authorized on approach roadway directional signs. Stokes recommended some changes to the memo before it is submitted to the headquarters proponents. The MCX will revise the memo and include some graphic samples of what the directional signs would look like with the Signature in place. Dave Johnson has made some mockups in the past, and these can be used.

It was noted that the change to use of the Signature would be mandatory, but the signs could be phased in as replacements for existing signs.

Dennis Wallace explained that in Missouri the state highway department has started acknowledging the agencies who operate recreation sites by showing the agencies' logos and symbols on the state's own directional signs. The group agreed that this is good free advertising for the Corps, but we should ensure that the Corps information is presented correctly. The MCX will draft a letter to the state highway departments requesting that Corps graphic standards be adhered to. Duane Johnson, assisted by the Work Group members in general, will research the best addresses for recipients of the letter. Stokes will obtain the correct formatting information for the graphics and determine whether the trademark symbol must appear with the artwork. Wallace will draft new language for page 4.2 of the sign manual that says states may use the Corps Signature on their directional signs.

Corps SignPro software. Strandkov gave an update on the development of the Corps SignPro sign management software. The developer will have a working version available on the Internet in the near future. Beta testing is scheduled to begin in August. The MCX is currently evaluating sites to serve as the Web host. Cost and security are important concerns. It was pointed out that employees using the software should be allowed to maintain the passwords they are already using for other Corps software.

Stokes, Duane Johnson, and Mike Owen have names of people who would be good Beta testers for the software. The MCX will compile a list of the Beta testers and set up a timetable and a mechanism for consolidating the comments of the testers. The latter should include a web-based feature that allows the testers to see each other's comments.

The goal is to launch Corps SignPro in October 2003.

Electronic version of the sign manual. Strandkov reported that final text changes in the .pdf files have not been submitted to ERDC yet. Dave Johnson and his assistant are still working on the graphics. There were many problems to correct on the .pdf files created by ERDC. Johnson estimated that he would have the graphics completed by 30 June. Mangum volunteered to do what he could to help. To achieve the goal of official publication as an electronic document by the end of the fiscal year, the completed files should be sent to Stokes by 1 September so that she can facilitate the headquarters review and approval.

Related issues discussed included the importance of insuring that the electronic manual be compatible with the new software and the necessity of identifying colors by numerical coordinates because the computer screen will not be a reliable indicator.

Coast Guard aids to navigation symbols at locks and dams. Tim Grundhoffer gave an update on the St. Paul District's hazard marking system at its Mississippi River locks and dams. The system relies on buoys and daymarks using Coast Guard restricted area symbols. Using these devices in lieu of, or as complements to, verbal signs can save money.

Grundhoffer said that one of the issues St. Paul had dealt with was whether or not to add words to the daymarks and buoys (something that is allowed under the Coast Guard's aids to navigation system). The district decided against using words to avoid the issue of whether Corps viewing distance standards for verbal signs or Coast Guard viewing distances for symbol signs were applicable. However, Grundhoffer stressed that St. Paul's decision not to use words on the markers was a local one, and he did not advise setting it as a standard for other districts to follow.

Grundhoffer also noted that the marking system was part of an overall plan that included a public education program for boaters. He said that the Coast Guard was not able to help design the district's marking plan, but they did offer to review and approve it. The Coast Guard will also help install and maintain the markers

Grundhoffer stressed that this will be a dynamic plan as it develops with use and changing river conditions. The Coast Guard believes that being flexible is important when installing and maintaining buoys and daymarks. For instance, it makes more sense to determine the length of an anchor chain and the weight of the anchor at the installation site, rather than try to plan in advance based on uncertain river bottom and flow conditions.

The Coast Guard also regards the buoys and concrete-based daymark towers as "sacrificial"; i.e., they have learned that it is much more economical and efficient to build and install the markers inexpensively with the expectation that relatively frequent reinstallation and/or replacement may be necessary. Grundhoffer recommends, however, that the Rohn tower structures that support the daymarks be anchored so that a flood, for example, doesn't wash them away completely. (Rohn is the brand name of the tubular towers with a triangular cross section that are often used as radio towers.)

Grundhoffer noted that this evolving, "trial and error" aspect of the use of aids to navigation markers can be an incentive for adoption of the system by operations managers at locks and dams. They will not be forced to commit to a large initial outlay of resources without knowing for sure that they are, in fact, buying an optimal system.

Grundhoffer and Kidby stressed that an important aspect of the St. Paul District's project was the history of partnership between the Corps and the Coast Guard. Our help with the Coast Guard's buoys, for instance, has helped foster a spirit of cooperation.

Another decision made in St. Paul was not to use diamond grade sheeting on the daymarks. The Coast Guard is still studying the issue of retroreflective sheeting on the daymarks. One possibility is the use of white diamond grade sheeting as a base, which is then overlaid with construction grade orange sheeting. However, the Coast Guard does not use diamond grade as their standard at this time. Grundhoffer recommends that we maintain the diamond grade requirement in Section 14.

It was agreed that St. Paul's information and guidance on marking hazards at locks and dams should be added to Section 15 of the sign manual (the currently almost empty "Aids to Navigation"). Section 14 ("Lock, Dam and Waterway Signs") will then have to be modified only slightly by adding a reference to Section 15. St. Paul's experience can also be used as a case study on the Natural Resources Management Gateway website. It would be handled similarly to the Lake Success example already on the Gateway. The MCX will talk to Bonnie Bryson and Kathy Perales about setting up this example. Grundhoffer noted that his final design document will be ready soon for use in sharing this concept with others in the Corps.

Stokes said that she is meeting with the Coast Guard on the Memorandum of Understanding that is being developed. She requested a copy of the draft MOU that St. Paul has with the Coast Guard, which she will present at the meeting with the recommendation that it serve as a national model.

Excessive glare from some waterway signs. As discussed at previous meetings, some river pilots have complained about the blinding glare from some of our signs. This is caused by a combination of factors: The LDP sheeting we recommend is especially designed to return a bright reflection even when viewed from a long distance; the pilots use extremely powerful directional searchlights to find their way at night; and they are seeing with night vision because they work in a darkened pilot house with only red instrument lights.

The previously recommended solution to this problem has been to tilt slightly those signs that cause a problem. However, some pilots have complained that this is not effective. The MCX has studied the literature on this issue published by the manufacturer, 3M. The concept of tilting the sign, and the specifications developed – such as the angle of tilt – were developed by 3M not as a solution to glare, but to protect highway signs from deterioration by bird droppings, precipitation, UV radiation, etc. Grundhoffer will explore this issue further with 3M representatives in the near future.

Jetty signs on the Pacific coast. This is a complicated issue that has been discussed at past meetings. The Corps-built and owned jetties on the Pacific coast are subject to rogue or sneaker waves that can appear unexpectedly from a calm ocean and wash pedestrians off the jetty. The jetty surface itself can be treacherous to walk on. The jetties are nonetheless attractive as recreational sites, used by anglers and others. Those who might be hurt on the jetties are often people, including children, who can't read English signs. Because of the lack of a daily Corps presence at jetty sites, there are problems with sign vandalism and delayed repair and replacement.

A proposed new symbol sign warning of the rogue wave hazard was recently sent to the MCX by Janice Sorensen of Portland District's Office of Counsel. Strandskov distributed copies of the sign for discussion by the Work Group.

A pre-scheduled telephone conference was then held with Sorensen and John Eft, Chief Counsel of Northwestern Division. There was an extensive discussion of many aspects of the challenge of alerting ocean visitors to the jetty hazards.

After the telephone conference, the Work Group continued to explore solutions. The result was a plan to create and approve yellow and black slat signs depicting the separate hazards of rogue waves and treacherous walking surfaces. Each slat would contain both a symbol and a verbal legend alerting the viewer to the particular hazard. Stokes and Grundhoffer created sketches of the slat signs. Mangum, assisted by Dave Johnson, will develop detailed mockups of the signs for review by the Work Group. Wallace and Strandskov will write the appropriate legends to go with the symbols. Grundhoffer will help with sign installation engineering, as necessary. The MCX will notify Portland District immediately about our progress on this matter. Wallace emphasized that this effort should be given the highest priority to help Portland and the other West Coast districts resolve this long-standing problem.

Accessibility signs. At the previous Work Group meeting, the issue of using a blue and white color scheme for accessibility signs was discussed. These colors have become almost universally accepted, especially for those signs displaying the universal symbol of accessibility (a stick figure in a stylized wheel chair). Sample signs prepared by Dave Johnson showing various formats for handicapped parking signs were distributed to the Work Group for review.

Issues discussed included the fact that some states will only enforce the parking rules if the handicapped signs are blue, whether project managers could be given the choice between a sign that was only blue and white or one that was green, black, white, and blue, and the applicability of the federal/state Manual on Uniform Traffic Control Devices.

Wallace discussed the use and availability of accessibility signs with raised (embossed) letters and symbols. (Typical of these signs are those that are often used now to mark restrooms.) He has discussed this with UNICOR, and UNICOR is willing to make such signs. He will further explore our legal and regulatory requirements for using these signs with Judy Rice, the Corps accessibility coordinator.

The Work Group chose preferred formats for parking signs from the selection Dave Johnson had prepared. The MCX will make the necessary changes to the electronic version of the sign manual to include the parking and raised-element accessibility signs.

Symbol signs forbidding archaeological collecting/digging. Dave Johnson provided samples of a symbol showing a stick figure digging. This could be used with a prohibition slash on a sign prohibiting the collection of archaeological artifacts. Such a symbol has been a long-standing desire of the Omaha District.

The Work Group agreed that the symbol was very close to what was needed. Dave Johnson will revise it in the next few weeks and send it for review via email.

Electronic message signs. Scott Strotman led a discussion of electronic message signs, showing examples of these signs as used at Rock Island Arsenal.

Owen noted that Fort Worth District has several of these at gatehouses. A common use is to display water safety messages in Spanish.

The Work Group agreed that electronic message signs can be a useful supplement to standard Corps signage. Electronic signs should be discussed in the sign manual, but it must be stressed that they are not to be used in lieu of any of the signs depicted in the manual. Strotman will draft language to be added to the manual.

Identifying life ring boxes. Strotman said that at Rock Island District beaches, decals have been used to mark the boxes that hold life rings. The Work Group agreed that decals were acceptable, provided they were in Corps sign format. It was suggested to use the black on white industrial/workplace sign format without the arrow, or use a Notice sign format.

Work Group communications. There was a discussion of the communication chain within the Sign Advisory Work Group. The MCX charter, which includes a summary of Work Group's responsibilities, does not address this issue. It was noted that Work Group members have a variety of formal job titles and official responsibilities; this provides a welcome and productive diversity of sign-related experience, but does not necessarily simplify the communication process.

For example, the Work Group has evolved (and is being maintained) to include a representative from each civil works division. But the members are not necessarily their divisions' official Sign Program Managers. (In fact, this is seldom the case.) Official communications from the MCX are supposed to go through the division managers to the district Sign Program Managers and thence to the appropriate staff at the project level. But there is invariably a closer working relationship between the MCX staff and the work group members than between the MCX and the official division Sign Program Managers. Thus, a tendency toward communication confusion.

Wallace agreed to write a clarification of information gathering and information disseminating procedures that should be followed within the Work Group.

Presentation on fiberglass reinforced plastic. Two representatives of American Fiber Technologies (a division of U.S. Highway Products, Inc.) gave a presentation on their product, fiberglass reinforced plastic (FRP), which is marketed as a substrate for signs. The product is sold primarily as an alternative to aluminum. According to the company representatives, the product has been used for signs throughout the country by government agencies at various levels.

Work Group members had many questions about the product, including its cost, durability, workability, flammability, resistance to vandalism, use in the field, etc. Various members of the group said they would examine product samples following the meeting and do research on how well the product has performed in their regions of the country. No decisions on whether to consider the product as a substitute for aluminum or plywood in Corps signage was made at the meeting. However, it was pointed out that HQUSACE has issued guidance in the past explaining that choice of sign substrate material is not a mandatory feature of the Sign Standards Program.

MCX charter. Strandskov explained that he had been working on revising the MCX charter and had come to the conclusion that it may be more appropriate to substitute an updated Program Management Plan for the charter. The Program Management Plan is a required part of the information that appears on the official Corps website that establishes the Mandatory Centers of Expertise. According to regulation, it is the listing on the website that gives each MCX its formal authorization.

Strandskov will send the members copies of the existing charter, the current Program Management Plan, and the draft of the revised Program Management Plan.

Next meeting. The next meeting of the Sign Advisory Work Group will be held in January 2004. Owen offered to host it in Fort Worth District. New Orleans was also suggested as a possible location.