

**National Sign Advisory Work Group
Meeting Minutes
22 June 1999**

The meeting began at 0800 in Room 1267 of the Pulaski Building. The following attended all or portions of the meeting:

Arthur Hurme, CECW-OD, (202) 761-8845
Dennis Wallace, CENWN-OF-PT, (417) 745-6411
Thomas Sully, CEMVP-ED-ES, (651) 290-5573
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Timothy Grundhoffer, CEMVP-ED-D, (651) 290-5574
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Bill McCauley, CESWD-ETO-R, (214) 767-2434
George Tabb, CECW-ON, (202) 761-1791
Debra Stokes, CEMVN-OD-JC, (504) 764-0126
Joe Holmberg, CESP-KO-O, (916) 557-5281
David Johnson, CELRP-OR, (724) 639-9013
Terry Ramsey, CESAW-JS-OK, (804)738-6144,ex. 110)
Chuck Gregory, CEIM-IV, (202) 761-1813
Karlissa Krombein, CECC-K, (202) 761-8546
Judith Rice, CECW-ON, (202) 761-1795

1. **Introduction.** The meeting began with introductions. After some adjustments to the agenda, Henrik Strandskov passed around photographs of some interesting examples of Corps signage he had observed in visits to various districts over the past year.

One of the photos showed a temporary banner purchased by a project for a specific event - Safe Boating Week. A question was raised as to whether such banners are included in the sign standards program. Debra Stokes said that they were. Joe Holmberg noted that sometimes a project tries to match a compliant sign with decals and other stick-ons. This presents problems because such temporary non-compliant signs might become permanent.

2. **Compliance.** This led to a discussion of compliance problems in general. It was noted that recent leadership hasn't cared about sign standards.

Mike Kidby noted that Portland District may be slower in achieving compliance because Major General Fuhrman had been Division Commander in Northwestern Division, and his philosophy was that local commanders should have local control. Strandskov said that he had actually observed a fairly high percentage of compliant signage during his visit to the Bonneville project.

George Tabb noted that sign program compliance is somewhat haphazard, and that one method of promoting compliance would be the implementation of a formal audit process. Joe Holmberg agreed that audits are effective. It was explained that an audit has not been formally proposed because it was deemed unlikely that it would receive management approval.

Stokes pointed out, especially with regard to safety signs, that it may take a major lawsuit following an injury to convince project managers that compliant signage is a necessary thing. Tabb questioned whether there could be personal culpability for a mishap if it could be shown that one of the causes was conscious non-compliance with the sign program.

Mike Kidby noted the danger that the attitude from top management might be to change from the Corps setting sign policy to having division and district commanders make policy. Art Hurme suggested that a viable compromise might be to have some standards apply Corps-wide, while others would be at the discretion of lower commands.

In response, Bill McCauley noted that noncompliance is at born at the project level not division level; divisions don't promote non-compliance.

Tabb said that another part of the problem is that projects are still giving signage responsibility to less-experienced, lower-graded staff members. Dennis Wallace felt that most project managers want to comply with the sign standards program, but they have difficulty taking the necessary steps. For instance, many are reluctant to remove still-serviceable, but non-compliant, signs. Wallace stressed the importance of compliance with the program and consistency throughout the Corps.

Hurme and Kidby responded that this was especially important in the context of inter-district navigation. A recreational or commercial boater moving from one site or district to the next expects to encounter consistent signage. There have been complaints about inconsistency from the navigation industry. Kidby is working with the American Waterways Association on a study of the best locking procedures. Signage is included in the study, the report of which is due soon. Kidby also noted that there have been Congressional complaints, especially from recreational boaters, about lockmasters not communicating adequately with the boaters.

Holmberg pointed out that this need for safe and efficient navigation procedures and facilities throughout the Corps is the best argument for signage consistency.

With regard to consistency, Stokes reminded the group that South Atlantic Division had received a waiver outside the normal waiver process for noncompliant ID signs that they wanted to retain. Tabb noted that General Fuhrman had made the decision to grant a waiver for the signs: They will be allowed to stand until they need to be replaced. Tabb also said that this decision was made after Natural Resources Branch had made a forceful argument that the cost of replacing the signs was worth it in terms of fostering brand recognition.

Everyone agreed that it would be interesting to see where incoming General Van Winkle stands on these issues.

3. Combined MCX. Hope was expressed that the proposal to combine the Waterways Signs MCX and the Sign Standards Program MCX in St. Paul would not require the Commander's approval. It was noted that a positive side to the proposal is that it would eliminate one MCX, and this fact would help gain approval if the proposal does have to receive the Commander's approval.

A justification document for combining the MCXs must be prepared by the Sign Standards Program MCX. The Advisory Work Group can help the MCX prepare the justification by submitting comments on the draft charter that has been prepared and distributed. Comments on the charter are due to the MCX by 15 JUL 99. (Note: Only one set of comments, suggesting minor editorial changes, was received by the deadline.)

4. Darrell Lewis. Lewis spoke to the meeting, reporting that he was just back from a trip to Wyoming. Lewis stated that signs fit into a complex puzzle of advancing the Corps' public image and enhancing the Corps' ability to serve its customers.

Lewis noted that there is a climate change in the way natural resources and recreation are viewed in the Corps. The tide is rising; more and more, upper levels of management are recognizing that natural resources and recreation are very important parts of its mission. For example, the Assistant Secretary of the Army (ASA) for Civil Works wants high emphasis on recreation in the 2001 budget. However, Lewis also noted that the military command doesn't always follow through on the ASA's wishes.

In general, there seems to some ambiguity among various elements (civilian and military) of Corps management about the level of priority that recreation should be accorded. The new Director of Civil Works wants to see a strategic approach for recreation laid out by the end of the week.

One goal for recreation is to bring the recreational services we provide up to modern standards within five years. Right now we are still back in the 60s.

Lewis then stressed that signs are important to this because they create the Corps signature. The Chief wants people "to smile with delight" when they think of the Corps. Signs help achieve this goal by making a project identifiable with the Corps. This enhances our customers' ability to associate their good experiences with the provider of those experiences, the Corps of Engineers.

Lewis pointed out that the ASA, the Chief of Engineers, and the Chief of Programs are all on the rising tide when it comes to recognizing the importance of recreation and natural resources; we should therefore think strategically in promoting these aspects of the Corps' mission.

Lewis said that the 2001 budget strongly attacks maintenance backlog, including modernizing our facilities, improving accessibility, etc. For instance, visitors have complained of two-hour waits to use our boat ramps; we must therefore add capacity where necessary to provide the service the public expects. When projects carry out modernization programs, these efforts should be documented in writing and with photos. Lewis noted that the Forest Service has gone through this change in emphasis, and their largest program is now recreation.

Lewis was asked who were the boat anchors resisting the rising tide. He responded that the anchors were some of us, i.e., middle managers who tended to resist change. He observed that this was a case where military personnel are useful in the organization because they can change direction quickly.

Lewis noted that the public is also waking up to the issues of recreation and natural resources. There have, for instance, been stakeholders meetings on fishing. Private industry is also interested.

Lewis next discussed the future of MCXs. He said that the Chief has taken dead aim at them, but that Lewis himself still thinks they are a good idea.

With regard to funding strategies, Lewis said that if we were paying our way, it would be helpful. He wants our

ideas on how to change funding so it's not viewed as a drain, but he stressed that bill-back is not what he prefers.

One of the current emphases in the Corps is "Brand Management." Lewis said that the concept of Brand Management (also called simply "branding") is very much linked with signage. Signage is the label that identifies the Corps "brand." With several million visitors a year, Corps projects are where people get their idea of the Corps and its mission. And our signs identify those projects.

Lewis illustrated his point by describing a recent exchange with the Chief of Operations Division, Mr. Charles Hess. Mr. Hess had visited Southwestern Division, where managers complained that project visitors were saying that our rangers look like U.S. Park Service rangers. Lewis pointed out that, if a consistent and distinct Corps image was desirable in uniforms, then it was just as important, if not more important, in signage. Thus, the waiver for the noncompliant identification signs in South Atlantic Division should not have been granted.

Lewis continued his discussion of Brand Management by stating that our "brand" is the collection of all the promises and perceptions we want our customers to have. It is an outreach effort. We make a good start in brand management with our recreation areas, where we provide a quality service to the American public. Another program is water resources, which is not particularly high right now, but the major rehabilitation program has some possibilities. Another high reputation builder is our Emergency Management program.

Once again, Lewis stressed that for people to know that they've enjoyed our brand, they have to know it was ours; therefore, we need signs to identify ourselves.

Lewis said that an SES position will be established for outreach. But he pointed out that we have to improve construction capability; in other words, we have to create a good product first, then try to sell it.

Holmberg noted that in Sacramento District they have a Deputy District Engineer for outreach. However, he is skeptical about some of these efforts. For instance, he asks why we compete with local contractors in seeking to provide construction for the National Park Service. Lewis responded that the Corps does not think that our mission should change to the point where our whole job becomes contracting for others. He noted that in Civil Works, Operations and Maintenance works well and is highly valued both on capitol hill and by the public.

A good example of the positive changes is the recent emphasis on visitor centers, including regional centers. This emphasis was made by General Fuhrman, who recently said that visitor centers should be upgraded Corps-wide. This comes after visitors centers have languished for many years. General Fuhrman stressed that the first exhibit in each center should tell what the Corps does; these could be centrally designed exhibits that are interactive but use off-the-shelf equipment. General Fuhrman was so interested in this concept that he was envisaging very large interactive displays, but Lewis thinks we should match expense with traffic flow at any given site.

Wallace noted that it would be very helpful in the field to have access to a Corps-wide audio-visual program prepared by headquarters to promote the Corps.

Terry Ramsey asked about the possibility of corporate sponsorship for such exhibits. Lewis responded that right now a lot of district counsels would think that was illegal, but he thinks it will come in the future. We don't have to recognize the corporate help in such a way that it will appear we are advertising the company.

Lewis noted that the Lewis and Clark bicentennial is really catching on; it's a national romance, and we're the best-placed agency to lead the celebration. If we handle it well, we can use it to help tell the Army story, too. We will get a surge of visitors, so it's a good incentive to carry out an initiative to spruce up our visitors facilities. (Lewis noted that he was especially intrigued by this opportunity because he is a shirt-tail cousin of Meriwether Lewis.)

5. Digitizing the sign manual. Chuck Gregory from the Information Management office in headquarters then joined the meeting. He discussed the electronic publication (or republication) of the sign manual. He provided a handout listing some the considerations in embarking on such a task and his recommendations as to how we should proceed.

Gregory noted that converting official publications (especially those for an internal audience) to electronic format has been determined to be a good idea. Furthermore, management has recommended that, where possible, printing of the documents in question be stopped.

There was some discussion among the work group about the advisability of discontinuing the sign manual as a printed document. At the conclusion of the discussion, there was general agreement that the sign manual needs to remain available in hard-copy format. However, it may not

be necessary to provide it in a format as expensive as what we now have.

Gregory noted that records show there has been only one revision of the sign manual to date. Everybody acknowledged that, in addition to the separate package of pages that were sent marked "Rev. 2," there have been other changes (such as the addition of many safety sign waivers). Gregory's point was that if we published electronically only the revision that is officially listed, we would not be providing an up-to-date document.

Gregory stressed that in terms of the archive, we need to move forward with electronic publication in accordance with policy; this is important, for example, to protect us from liability.

Chuck said that a first step in the process was to get the manual pages into a desktop publishing format. (Note: The MCX subsequently provided Gregory with those manual pages that are already digitized; these were in Quark format. Later, the pages were also provided in Macintosh-compatible format.)

Gregory said that the OM 25-1-51, the guidance for preparing publications is still in draft. This is the document that tells what the various publication designations are for. In our case, Gregory thinks the sign manual should be an Engineer Manual (EM). He has several reasons for this recommendation, including that the manual can be changed easily. He noted that this would give us an opportunity to combine the sign manual (currently an Engineer Pamphlet (EP)) with the Engineer Circular (EC) that has been published on the construction and installation of waterways signs. The work group agreed that this would be a good idea.

One decision to be made with regard to the republication of the manual is to decide what series would be an appropriate designation. For instance, 420 is used for facilities engineering, 1110 is for engineering and design, and 1130 is for project operations. It was agreed by the group that the 1130 series would be most appropriate.

It was also agreed that the manual would be republished in PDF format; this will be good because the reader for that format, Adobe Acrobat, is coming out with improved version 4.0 soon.

Gregory noted that one of the people who worked on the sign manual is available to him to begin the digitizing process and that there are some printing funds available. Stokes asked how long the project would take. Gregory

responded that his office could quickly modify those pages that are already in electronic format. The scanning process for the remaining pages will take some time. Gregory wondered if there is board art available. He noted that he has a contractor who can go through the manual and digitized pages and determine which pages need to be scanned. This will be done at no cost to us.

It was noted that CALS files were used in the waterways signs EC and the question was raised as to keeping that format. It was decided that we would.

Tim Grundhoffer noted that there are some significant technical revisions and policy revisions to Chapter 14 in the waterways signs EC, and these must be incorporated into the republished manual.

Tom Sully asked whether the metric system would be incorporated into the republished manual. Kidby responded that the Corps had decided not to adopt it (in terms of signage) until the Federal Highway Administration had done so. So we will use standard English units in the manual. Sully noted that on the military side, everything we do now is metric.

6. Sign waiver list. The current list of approved, non-manual safety signs was distributed and discussed. It was noted that it is getting quite lengthy.

It was suggested that the list be printed so that appropriate line breaks are shown in the sign legends. Grundhoffer pointed out that miniature examples of the actual signs could be shown as was done in the waterways signs EC. They were created using Excel, and were easy to do.

It was also requested that the MCX send the final decision on each waiver request to all the advisory work group members.

The speed of the waiver evaluation process was discussed, and it was agreed that work group members should be given enough time to make thoughtful recommendations.

Ramsey questioned whether any of the waivers have to be site specific. Tabb responded by pointing out that in many cases the work group might be lacking necessary information about a site where it was desired to use a sign approved for another site. Going through the waiver process would allow the work group to review all pertinent information about the second site.

7. National Recreation Reservation Service (NRRS) Sign. The sample sign that was prepared had a secondary legend

reading "Contact the park attendant for more information (000) 000-0000." Concern had been raised that this was intended to be the recommended (or even the required) legend. It was explained that the only intention was to show the format of the sign, and that it would be up to the individual projects to choose legends appropriate for their needs. It was recommended that when the sample is sent to the field, care is taken to clarify the format and content of the secondary legend. Judy Rice noted that the secondary legend should always have the NRRS phone number and the website address.

The NRRS logo on the left of the sign was discussed. (After some attempts at creating an alternative logo in the St. Paul District, the NRRS contractor had provided their preferred logo.) The work group felt that the verbal portion of the logo ("Reserve Your Place Under the Stars; National Recreation Reservation Service") was still too small to be legible. It was suggested that we use just the pictorial portion of the logo and omit the words. Judy will check with Lynn Beeson as to whether words can be omitted. It was noted that the entire logo is trademarked and that it may not be legal to alter it.

Strandskov confirmed an earlier communication with Tabb that the NRRS sign would not be part of the sign standards program at this time. Rather, it would be put in the NRRS instruction manual. However, the fact that the Sign Advisory Work Group agrees with the sign's format should be made clear.

8. Software upgrade. There was some discussion of the possibility of using off the shelf software instead of upgrading the current "Sign Manager" software program. It was agreed that a made-to-order upgrade would be a more useful and efficient tool for the typical Corps user. It was decided that we would find someone who is knowledgeable about the software work with the headquarters Information Management (IM) office to carry out the preliminary requirements for getting the software upgrade approved. Stokes said she would find someone who could do this. Tabb said he would find out who the best contact is in IM. (Note: On the day following this meeting, Stokes met with Jim Johnston in IM. He outlined the process of getting approval for the upgrade, which includes entering the project into the Information Technology Investment Portfolio System (ITIPS) and preparing a Mission Needs Statement and a Project Management Plan. Holmberg and

Stokes subsequently explained this to Strandskov, who has begun the process.)

9. **Size of Waterways Signs.** Ways of reducing the cost (by reducing the size) of some waterways signs were discussed. The original sign program contractor, Don Meeker, had discussed with some members of the work group the possibility of the new Clearview font, which has been developed for highway signs. In theory, the better legibility of the font could justify a reduction in size of up to 12%. Sully and Tim Grundhoffer didn't feel that this would really produce much of a cost savings, even if the font would change would enable a smaller sign. Dave Johnson pointed out that the same size/cost savings could be achieved just by reducing the width of the left margin. A decision to change the format that way should be discussed as part of the preparation for republishing the sign manual

10. **Y2K Problem.** The question of whether the current software is Y2K compliant was raised. Stokes said that the developer of the software has tested it and found only one little problem that won't affect use of the program. The problem is that, if the user wants to print a list of signs purchased, the list will start with those purchased in the year 2000. One problem with the current software is that it is not Windows NT compatible, so someone using a networked computer with that operating system would not be able to use the software. This was pointed out to Stokes by Greg Mollenkopf, who is now a member of the work group.

11. **Sign Program Compliance.** Holmberg asked whether projects that failed to achieve compliance with the sign manual in a timely manner would be legally liable should a mishap occur. Karlissa Krombein replied that they would be. Tabb asked who would be responsible for the liability. The employee responsible for signage, the employee's supervisor? Krombein responded that there is no personal liability. It is the agency that is at risk with regard to non-compliance. It was suggested that a good way to foster compliance would be to include it in the TAPES performance standards of appropriate employees.

Sully asked at what level the liability lay if a mishap resulted in the Corps' losing a lawsuit. Krombein responded that it would be at the level where the fault was. Stokes noted that it is always wise to document your decisions adequately. Kidby noted that management, in

delaying sign program implementation, is gambling that we might go a long time without a mishap.

12. **Using funds for waterways signs.** Hurme said that he has had questions about the use of "end of year" money to buy and install signs. In general, project staff are concerned that if the sign deadlines are not going to be enforced, then it may not be prudent to spend this money on signs. Sully concurred, noting that Pittsburgh District has said that if the program is being dropped or allowed to languish, then there is no purpose in spending money.

Tabb replied that this is a serious problem and that the program is still very much in place. Kidby noted that the dates for waterways signs listed in the 14 FEB 97 memo are still in effect. These are:

Safety-critical signs	- January 2001
Safety-critical signs where a site-specific deferral has been granted	- January 2003
Non-safety waterways signs	- January 2006

It was noted that some of the alternatives to large waterways signs proposed two years ago by (then) Ohio River Division have not been addressed by headquarters. Kidby will discuss this with Barry Holliday, Chief, Dredging/Navigation Branch.

One solution to the problem of oversized waterways signs is that projects be judicious in the amount of signage installed at a given site. In other words, match the signage to the degree of hazard represented by the facility. A study of Corps accident statistics shows that most mishaps have occurred downstream of gated structures. These sites should therefore receive first priority for safety sign installation. The next most frequent location for mishaps is upstream of ungated structures. The fewest number of mishaps have occurred upstream of gated structures.

It was decided that Navigation Branch would try to issue a memo signed at the highest possible level reminding projects of the waterways signs deadlines and urging them to comply, including spending "end of year" money on signs. The memo will list the priorities of hazards as described above and will emphasize the importance of complying with the standards. The memo will also remind the reader that

every project needs a sign plan and that there are other marking systems that can complement signage.

Strandskov will prepare a draft of the memo and forward it to Kidby by close of business on 25 June 1999. It was pointed out that last year only 1/4 of the districts budgeted money for waterways signs.

Grundhoffer reminded the group that he and Russ Snyder had proposed a daymark system to complement waterways signage. He will forward copies of that to Kidby.

13. **Industrial safety signs.** Strandskov asked Tabb about guidance that may have been given recently to Portland District about requirements for industrial safety signs at large hydropower facilities, particularly the Bonneville project. Tabb said that it had been discussed and that he had told the district the sign standards program did apply.

Stokes pointed out that perhaps Bonneville doesn't need all the signs they have. She also emphasized that the project would find the use of the "Sign Manager" software useful in preparing and maintaining a sign plan.

There was discussion of the confusion that sometimes occurs in the field about whether OSHA sign standards take precedence over the Corps' sign standards. Strandskov noted that there aren't really very many specific OSHA standards. Johnson agreed, explaining that only the "Exit" sign format is specified under OSHA. Krombein stressed that if our standards are equal to or more stringent than OSHA's, then we are in compliance with OSHA requirements.

Stokes said that it would be useful to have a single ear protection/eye protection safety sign. She will go through the formal waiver process to initiate approval of such a sign. It was also noted that there should be an industrial safety sign about protective gear that would cover an entire shop, requiring protection for anyone using the equipment. Johnson concurred, noting also that all people in the area of a hazardous machine should be required to wear protective gear, not just the machine user.

14. **Use of forms.** Stokes noted that the sign waiver request form should be typed. Tabb said he initiated the process for having all sign manual forms included on the FormFlow software program.

15. **UNICOR.** Strandskov noted that he had forwarded several problems/complaints to the UNICOR sign factory recently. Ramsey said that he felt the factory was

providing good service and that he had encountered only one problem in four or five orders. It was noted that a recent cause of order delays was a lock down at the prison. In response to this, Holmberg said that the factory should inform customers when there is a lockdown so that we are aware that there might be a delay. It was agreed that Strandskov would ask to be the contact for such information and that he would then distribute the information to the sign managers.

A complaint was raised that UNICOR has sent hardware that is not appropriate for assembling the sign according to instructions in the sign manual. In the case in question, the bolts sent were too long and were driven through the T-nuts during installation. It was agreed that complaints like this should be sent directly to Jim Halbeisen at the sign factory and that Jim has been good about responding to and correcting such problems.

Strandskov explained that routed signs should again be ordered from UNICOR. Stokes asked to receive another copy of the message announcing that.

16. **VHB Tape.** Johnson reported on the use of 3M's VHB (Very High Bond) tape as an alternative way to mount signs to posts. He said that it is a good product and he likes to use when it's appropriate. He noted, for instance, that on large approach signs, you must have structural reinforcement (e.g., z-bar) on the back of the sign if you are using the tape.

Johnson cautioned that the tape is fairly expensive; a 1-inch-wide, 36-yard roll costs \$50. Thus at some point the use of the tape on larger signs might not be cost-effective.

Other uses of the VHB tape include the repair of waterways signs. Also, using the tape might enable you to substitute sheets of aluminum and L-bar for an HDO plywood substrate.

Johnson also explained that you can just use pieces of the VHB tape, thereby economizing. He also pointed out that once it's together, you can't get it apart.

Grundhoffer noted that adhesives are specific to the substrate, so one must consider carefully what materials you intend to use the VHB tape with.

Stokes said that she had considered using VHB tape to hang a big sign on concrete. But the project would have required that the installation be held on to the concrete for 24 hours, and there was preparation work required on concrete, including using a special spray. All these

factors made the use of VHB tape infeasible for that particular project.

Johnson noted that, in general, the tape requires a 72-hour cure time and that it cannot be installed if the temperature is less than 50 degrees. He recommends that the temperature actually be warmer than that for tape application.

Johnson said that there is a version of the tape for irregular surfaces. He says he buys the tape from a local supplier.

Grundhoffer stressed that VHB tape is a structural material, and, as such, it must be evaluated after a period of time before it can be generally used in the Corps. He said he will call 3M to find out whether they have test data on the tape. Sully noted that data from states that have used VHB might be the best information we can get.

17. Accessibility signage. Holmberg said that in Sacramento they have contracted for assisted living people to review their recreation areas for accessibility. One issue that came up as a result of the test was that a site needed two accessible parking spots - one for cars and one for vans. So we need a van handicapped parking sign

Also, the Sacramento test group found that some signs are too high for easy visibility from wheel chairs. Another problem is that little consideration has been given to signage for the visually impaired. How, for instance, do we provide interpretive signage for the visually impaired, only 10% of whom use Braille?

One improvement that was suggested was to engrave a male or female symbol on the push plate on rest room doors. Also, trails should be marked to identify their degree of difficulty.

A question was raised as to the status of the Americans with Disabilities Act task force. The response was that nothing will be produced before 2000. Holmberg recommended that a chapter on accessibility be added to the sign manual. We could start work now and be ready when the access committee creates its report.

18. Needed signage. Stokes said that we need a sign for carry in/carry out areas. We could perhaps put in the manual a symbol sign to identify an area as carry in/carry out; it might, for instance be a sketch of a garbage can with prohibition slash across it. We should see what other agencies are using.

19. **Paint.** Stokes that staff at some projects can't match paints because they can't go to a computerized paint store. That's a problem, for instance, when the brown paint on the back of a sign has been damaged. It was suggested that UNICOR provide the formula, but it was also pointed out that we can't trust the brown paint from UNICOR.

It was noted that there really is no need to paint the back of aluminum signs. We have said before that a project must specifically request that UNICOR not paint the backs of signs because the manual requires them to do it. (In a subsequent communication, Stokes noted that this is not valid reasoning because UNICOR has stopped applying top tape and that is still in the standards. She suggested that a letter be sent to UNICOR telling the factory not to paint the backs of aluminum signs and a corresponding message sent to sign managers explaining the new situation.)

20. **Training.** Johnson pointed out that future sign training should be targeted at field-level personnel. Holmberg said that in Sacramento District they had given an abbreviated training session for project-level sign managers.

Sully discussed the new METLs (Mission-Essential Task Lists). He pointed out that the use of this system may reduce the flexibility employees have had in planning training, and may make it difficult to take our course.

Holmberg recommended that, after we get the new software, we have two or three training sessions, each of which would serve two or three divisions.

21. **Corps brown.** It was noted that the Park Service has been trying to develop a new brown color, and has not been satisfied with the results. There was general agreement that it makes sense to seek a "Federal brown" that several agencies could use. Holmberg urged the MCX to continue discussions with the Park Service to further this end. One of the problems with Corps brown is that as it fades, it becomes more reflective, thus making the legend less distinct.

22. **Clear vinyl sheeting.** Stokes recommended that we add to the manual guidance on applying graffiti-free clear vinyl sheeting to sign surfaces. UNICOR says this process adds only 10% to the cost of a sign. Not only does it lessen the effects of vandalism, but it also prolongs the life of signs exposed to high UV levels.

23. **Manual/software compatibility.** Stokes noted that one utility that can be built into the upgraded software is an automatic upgrade feature. This would marry the version of the sign manual on the internet to the software and allow information changed in the manual to be downloaded directly into the software. This means that some parts of the manual would have to be placed on the internet at a location other than the regular Corps document site that Chuck Gregory told us about. We would have to decide what parts of the manual would be at the other site. Stokes suggested that all of Volume 1 should be placed there.