Subject: Welding Support from METS for Projects Requiring Radiographs

If you currently have radiographs for a project, send the radiographs to the Sacramento office of Materials Engineering and Testing Services (METS) with a cover letter showing the Contract number, the structure name/number, what part of the structure are the welds located, and a person to contact once the radiographs have been reanalyzed by the Sacramento METS Lab. Send a copy of this memo to the OSC office in Sacramento.

For new radiographs, Sacramento METS (Materials Engineering and Testing Services) has issued guidelines to their employees in the Los Angeles and Emeryville labs. Below is an excerpt from their memo:

1. “Try to attend the pre-construction meeting between the contractor and Caltrans.” This will provide the opportunity to go over what is expected during the welding phase of the work.

2. Upon notification by the Structure Representative that welding is ready to begin, visit the jobsite to review the welding procedures, fit-up etc., as well as provide assistance to the jobsite inspector as to what to watch for during the welding operation.

3. If radiographs are to be taken, spot check the bars by the Structure Representative to be shot to make sure they are visually acceptable. This can be done during the day, even if the actual shots will be taken at night.

4. If unable to witness a portion of the actual radiographs being taken, instruct the Structure Representative to have the film delivered to his or her office by the radiographer’s company at the start of the next day.

5. Visit the Structure Representative’s office the next day and review the film for the following:
A. **Film identification**
   - Contract Number
   - Location (bent, column footing, etc.)
   - Weld Number verified by Q.C.
   - Technicians I.D.
   - Make sure information on envelope matches what is in the package

B. **Film Quality**
   - Density (2.5 to 3.5)
   - Check density in weld area
   - Check density in penetrameter
   - Check to see if film is free of artifacts

C. **Penetrameters**
   - Size denoted by number
   - Placement/Location
   - Thickness of shim when required
   - Clearly identify hole as required (2T-4T)

After review of the film for items above, send (or have Structure Representative send) the film to Sacramento for review of welds for acceptance or rejection per Office of Structure Construction memo of May 8, 1996 (AJ96.10), (Structural Materials Branch, 5900 Folsom Blvd., Sacramento, CA 95819 ATTN: Paul Hartbower or Frank Reed.)

At the time of the initial review of the film by our field inspectors, the inspector **should not** accept or reject the weld. However the inspector **should** accept or reject the quality of the film.

Many of the problems we have experienced in the past with regard to welding inspection hopefully will be resolved once we get the additional training and staff in place. I feel we need to remember that we are providing a service and our client, in this case, is Structure Construction."