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September 13, 1999

Ms. Diane Miller
NIOSH Docket Officer
Mailstop C-34
4676 Columbia Parkway
Cincinnati, Ohio 45226-1998

Dear Ms. Miller:

I have reviewed the draft NIOSH document, *Building Safer Highway Work Zones: Measures to Prevent Worker Injuries from Vehicles and Equipment*, as requested in a package sent to me on July 27, 1999 by the NIOSH Division of Safety Research. My written comments are attached.

I appreciate the opportunity to review this document. If you have any questions regarding my comments, please contact me at 423-974-4422.

Sincerely,

A handwritten signature in cursive script that reads "Gregory G. Zigulis".

Gregory G. Zigulis, CIH, CSP
Associate Director

Attachment

cc: William R. Schriver
Project Co-Director: Operations

Steve Richards
Director, Transportation Center

RECEIVED
BY *hem* | DATE *9/17*

Comments on: *Building Safer Highway Work Zones: Measures to Prevent Worker Injuries From Vehicles and Equipment*

1. Pages 1 and 2: If one reads the paragraphs carefully, the statistics make sense. However, I think that some graphs or charts would make it easier to follow.
2. Page 4: Perhaps another item to consider is the length of time before construction begins that traffic control devices are put in place, *i. e.*, put up signs a *reasonable* time period before construction activity actually begins. It seems that if devices such as reduced speed limit signs are put in place several months before any construction activity begins, then motorists "learn" that there is no construction activity really taking place, and the 45mph signs (etc.) get ignored.
3. Page 5: In the 2nd "checked" paragraph, it is stated that "Flaggers should not be the least trained employees on the job site." This sounds somewhat negative. Is it appropriate to simply specify the training elements that they *should* receive?
4. Page 5: In the 5th "checked" paragraph, there is the statement, "Have flaggers wear high-visibility apparel that is easily distinguishable from that worn by other highway workers." Perhaps additional explanation can be provided in the text, as to why this is perceived to be of value.
5. Page 5: Under "Motoring public," there is the heading, "Employers can:" In other references to employers, it is immediately clear that the reference is to the construction employer, since the headings refer to construction activity, such as work zone layout, use of traffic control devices, and flaggers. However, in this case, the authors are referring to the "motoring public." Is it appropriate to change the phrase "Employers can" to "Construction employers can"?
6. Page 7, Internal Traffic Control: It would be helpful to explain the TCP and how it leads to the ITCP, before mentioning the ITCP in the first "checked" paragraph on page 7.
7. Page 7-10, general: There seem to be some concepts that are not clearly differentiated, that perhaps should be. In my opinion, using the authors' terminology, the TCP and ITCP's can contain several of the topic areas that are listed under "Accountability and coordination at the work site." Also, there should be some reference to a controlling contractor or organization. This controlling contractor/organization can ensure consistency between ITCP's. (Perhaps reference ANSI A10.33, which pertains to safety and health program requirements for multi-employer projects.)

The ITCP is referenced on page 8 as containing "a checklist of site-specific hazards with a description of how these hazards will be minimized.." etc. This is very similar to the site-specific hazard assessments referenced on page 10 (3rd "checked" paragraph). In fact, it seems that the assessments referenced on page 10 could or should be incorporated into the ITCP, as a "living" document.

All in all, it sounds as if the document is describing the elements of a good safety and health plan, but in several different locations. It might help contractors to have the suggestions organized differently. A general flow of thought that might be helpful could be:

- There is a controlling TCP
- ITCP's are prepared consistent with the TCP, prepared for a given contractor's unique operations and hazards, but approved by the controlling organization.
- Items that need to be addressed in the ITCP's need to include:
 - Management elements such as :
 - Chain of command
 - Location, time tables, etc.
 - Communication plan such as on p.8
 - Contact information
 - Safety related responsibilities, *e. g.*, what is the role of the "trained ITCP coordinator" and what is their level of authority?
 - Hazard assessment and control elements. This should be a "living" section. This could include details such as those in bullets on p. 8. It could also include requirements for lighting, and equipment operation and control.
 - Training requirements.

Perhaps a tabular format could be used, to concisely specify suggested TCP/ITCP content.

8. Page 7, second "checked" item: Is it possible to include a sample checklist?
9. Page 9, last sentence: This makes me wonder what you mean by "trained ITCP coordinator." I do realize that you do not want to anger/alienate contractors, but some "shoulds" might be helpful here. Also, should you address the issue of collateral duties, *i. e.* should this ITCP coordinator sometimes focus solely on safety duties? A frequent problem I've seen is that people are given a safety title for the sake of a contract, but then are tasked with too many other duties to pay significant attention to their safety responsibilities (hazard assessments, morning toolbox safety meetings, etc.)

Also, while assigning a trained ITCP coordinator can be great, on the other hand, craft can tend to rely upon that one safety person to identify all the hazards for the workers. So, employers should be encouraged to emphasize the role of each worker in the identification and abatement of hazards. The document as written might place too much emphasis on the trained coordinator. Also, that ITCP coordinator needs the authority to remediate hazards, if it is their "responsibility" to remediate hazards.

10. Page 10, last sentence: Is this suggesting that equipment operators chock two wheels when leaving equipment unattended *while running*?

11. Page 11/12: Is it appropriate to list common construction safety hazards and potential abatement actions, somewhere in here? (To let the readers see a possible method to identify, evaluate and specify controls to hazards?)
12. Page 15, Training and Certification: Is this section really an element of the TCP/ITCP? This section contains good ideas which might be "missed" by contractors unless you move it to another section, with greater visibility.
13. Page 15, Last sentence: Daily meetings of this sort are essential. It seems somewhat "hidden" in the back of this document, next to research needs. Should it be listed as a suggested element of the TCP/ITCP?
14. Page 17, Data and record keeping: I suppose there are quite a few things being discussed for the new (proposed) OSHA 300 logs. It seems that "type of equipment" information should already be captured on the OSHA 100 or comparable "first report of injury" forms used for Workers' Compensation programs.
15. Page 17, last paragraph: When you reference "adding" I presume you are referring to adding to the OSHA 200 log? I agree that the type of information you list would be helpful, as well as other information. I am not sure if the OSHA 200 itself is the proper place to put it. In any event, there are many special interest items for which additional information would be helpful. This section could perhaps be expanded to include a number of other important bits of information that should be captured somewhere in accident investigation documents.