

**CHAPTER 6 - LEGAL RELATIONS AND
RESPONSIBILITY TO THE PUBLIC**

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LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

6-1 LAWS TO BE OBSERVED

The Standard Specifications require the Contractor to keep fully informed of, and at all times observe and comply with, all laws pertinent to the work. From a contractual standpoint, FLH has the right to monitor apparent compliance with these laws, and to invoke contract sanctions if there are violations. However, except for the specific actions enumerated in this Manual, in the Contract, and in the FAR, general compliance reviews and enforcement of these laws is the responsibility of specific Federal, State or local agencies, i.e. OSHA, EPA or the Department of Labor.

6-2 PERMITS AND RESPONSIBILITIES

6-2.1 Materials Sources and Easements

Often, sources of materials and easements for access and staging areas are provided in the Contract. In general, the Engineer should have documentation on file covering designated materials sources or use of designated land outside the construction limits, including privately owned property on which FLH holds options.

Occasionally, the Contractor may request permission to use other sources or request additional easements to expedite the work. If FLH is requested to become a party to such a request, it may be necessary for the Engineer to make a judgement as to FLH's proper role. If it is in the Government's interest to expedite special requests for access and other purposes, the Project Engineer should furnish assistance and liaison with the permitting agency. However, if the request is solely for the Contractor's convenience or savings, action by FLH may not be appropriate. This is especially true if the quality of the proposed source is less certain than the source designated in the Contract. Permits requested by a Contractor within public lands are often issued to FLH rather than the Contractor. This implies a responsibility of FLH to monitor the terms of the permits, i.e. safety, reclamation, erosion control, etc.

FLH will obtain required railroad crossing permits, and permits for construction over or adjacent to navigable waters as shown on the plans. If the Contractor elects to use railroad crossing or waterway privileges other than those shown on the plans, required permits or other arrangements will usually be the Contractor's responsibility.

6-2.2 Load Limits

The specifications usually require the Contractor to comply with load limits on public roads in the vicinity of the project. As a practical matter, this is difficult to enforce except where materials are being delivered by the ton with weigh tickets.

The Project Engineer should, however, be particularly sensitive to this problem when there are complaints from local officials, and during periods of wet/thawing subgrade. FLH should cooperate with these officials in their reasonable attempts to protect their roads, even when our contractor may be inconvenienced.

In terms of FLH's contract liability, it is preferable to have a legal order from the local official, or a strongly worded demand, that says, hauling be temporarily discontinued or loads restricted, than for FLH to take actions based on verbal or other poorly documented requests. Actions which may be perceived as unilateral on the part of FLH, could be considered a change, and subject the Government to liability for the Contractor's increased costs. The Project Engineer should contact the COE for advice when in doubt.

On the project itself, overloads are not normally a problem through construction of the untreated base layers of the pavement structure. However, once construction of asphaltic concrete or treated layers begins, they must be protected from damage.

Although the Contractor is required to repair damage caused by overloads, there may be times when it is appropriate to prohibit heavy loads (even loads less than the legal maximum) in certain circumstances when the probability of damage is present. Again, the COE should be solicited for advice.

6-2.3 Bulletin Board

The Contractor is required to maintain a weatherproof bulletin board, accessible to all employees at the site. The following items are contractually required to be posted on the bulletin board. FLH should furnish items 1 and 2.

1. Davis-Bacon wage decision - Remove pages from Contract booklet.
2. EEO Poster.
3. Contractor's EEO policy.

The following items may not be contractually

required but may be required by regulation. FLH should furnish items 1, and 2. FLH may furnish item 3 if such resources are maintained by the cooperating agency, e.g. inside certain large National Parks..

1. Notice to Employees working on Federally Financed Construction Projects, Form WH 1321 - To be displayed with Davis-Bacon rates.
2. Job Safety and Health Protection poster.
3. Telephone numbers of physicians, hospitals or ambulances.
4. Blasting signals, if applicable.
5. Crane hoisting signals, if applicable.

6-2.4 NPDES Permits

The Clean Water Act of 1987 required the Environmental Protection Agency (EPA) to implement a program to regulate the quality of discharges and runoff from industrial and construction sites. This program, known as the National Pollution Discharge Elimination System (NPDES), went into effect in October 1992.

NPDES and equivalent [or more stringent] State regulations are applicable to essentially every project FLH constructs. However, these impacts differ, depending mostly on the State and local regulations in the State where the project is. In no State does the EPA itself actively monitor and enforce the NPDES process. In many States, monitoring and enforcement by State personnel is active and aggressive. Failure to comply with the requirements of the permit may result in shutdowns, injunctions, lawsuits and other adverse actions against FLH and/or the Contractor.

The Project Engineer should be familiar with the permit and other regulatory requirements in the State where the project is. These requirements are generally spelled out in the permit package or other documentation included in the PS&E package, or otherwise furnished by Project Development to Construction at the time of award.

In some cases permits will be issued for a specific project; in others, FLH will operate under a blanket permit.

In some cases the anticipated construction schedule and erosion control plan will have been submitted as a part of the permitting process; in others the permit simply obligates FLH and the Contractor to have a plan and to follow best erosion control practices. If the plan is filed with a State or local agency, it is important to know whether changes and enhancements to that plan have to also be filed or if they simply have to be documented in the project records.

In some cases FLH is the permittee [official holder of the permit]; in other cases the Contractor is designated as a co-permittee, or occasionally, the sole permittee. If permittee responsibility is transferred to, or shared by the Contractor, the Project Engineer needs to know if specific paperwork must be executed and filed to document that transfer.

Generally inspections of erosion control devices must be made periodically [usually weekly except in arid areas] and after heavy rains. It is important to know who the permit and the Contract require to make these inspections. It may be FLH; it may be the Contractor; but usually it will be a joint responsibility. There will also be specific requirements as to the format of the inspection report, who is required to sign the inspection report, and whether it is sent to the responsible State agency. It will usually be required to simply be filed in the project files.

The permittee is always responsible for making enhancements to the erosion control plan if the construction operations and/or original plan are resulting in unacceptable levels of sediment runoff. However, the Project Engineer should be very wary of eliminating specific features of the original plan even if they appear to be unnecessary. Such actions should be taken only after discussions with the COE or environmental resource personnel in the FLH Division.

In many States, inspections by State personnel responsible for administering NPDES are common. These personnel should be treated with

respect and cooperation to the extent that is possible. They will often request to see the permit, the erosion control plan, inspection reports and related documentation. The files on this subject should be kept up to date and easily accessible. Do not tell these personnel that they have to go through FOIA to see FLH files. If State inspectors issue instructions or make demands that seem to go beyond the requirements of the Contract and existing permits, discuss the issue with the COE before implementing these actions - especially if the actions may result in unforeseen expenses or liability to the Government.

Whether or not the Contractor is designated as the permittee, the Contract usually gives control over erosion control items and quantities to FLH and the Project Engineer. It is important therefore to cooperate with the Contractor and State authorities to assure that there are no deficiencies in NPDES requirements due to disputes over the payment for additional quantities and devices. If additional funding is required for these quantities, the issue should be discussed with the COE.

If deficiencies are due to poorly scheduled construction operations, or the lack of tenacity and perseverance in maintaining the erosion control measures and completing work as scheduled, then the Project Engineer must be assertive in requiring the Contractor to resolve these problems.

6-3 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE

6-3.1 General

The Contractor is responsible for the protection of all public and private properties adjacent to the construction insofar as they are endangered by the construction operations. This responsibility also extends to designated materials sources and property adjacent to haul roads. If the Contractor fails to take proper precautions or persists in performing the work in a manner which causes damage to such property, the matter should be called to its attention in writing. The Contractor is obligated to repair, rebuild, or otherwise restore such damaged property, or make good such damage or injury.

Occasionally there are claims against the Contractor related to damage to its own (nondesignated) materials sources or to property not directly related to the Contract. FLH should try not to become involved in such disputes. However, there are times when, for political or public relations reasons, our involvement is necessary. There are also certain environmental protection laws which make the Government partially responsible even for private sites, which are related to the construction project. The Project Engineer should discuss such cases with the COE prior to taking action.

Since landscape degradation often cannot be completely restored, emphasis should be placed on prevention of damage. In cases of damage, the Project Engineer should contact the appropriate representative of the agency concerned and discuss the extent of repairs that the Contractor must make. Request a written description of the repairs so that the Contractor may be given a copy. As long as the requested repairs are reasonable, the Contractor should be given a written directive to complete them at no cost to the Government. If the requested repairs seem unreasonable or excessive, discuss the situation with the COE. If FLH orders corrective action under the Contract, which is later deemed excessive, we may ultimately be liable for the excess costs.

6-3.2 Trespassing

FLH should do no staking on private property without written permission from the owner. If the Contractor performs any construction operations outside the limits of the acquired right-of-way, or permits employees to trespass on private property, the Project Engineer should notify the Contractor of its liability for damages to such property. If for any reason additional easements or right-of-way should be necessary, the Project Engineer should notify the COE well in advance of the time when access will be required and secure proper written permission for right of entry.

6-3.3 Forest, Park, and Public Lands Protection

The specifications usually provide that when working within or adjacent to State or National Forests, Parks, or other public lands, the Contractor shall comply with all regulations of the authority having jurisdiction over such lands.

The governing rule concerning sanitary facilities on Public Lands specifically requires the Contractor to obtain permits for latrine construction from the public agency having jurisdiction. It has been found that some district officers of public agencies do not allow open pit toilets (chemical toilets, minimum), while others do. This matter should be cleared before the start of construction, preferably at the preconstruction conference.

6-3.4 Fire Prevention and Control

Employees of FLH and the Contractor must comply with the rules and regulations of the Forest Service, Park Service, State, or other public agency having jurisdiction governing fire prevention and control. If they are incorporated into the Contract specifically or by reference, the Project Engineer is responsible for enforcing the rules and regulations governing fire prevention and control, and therefore should obtain copies of manuals of instructions and fire plans of the agency having jurisdiction. Forest Service fire control plans are sometimes included in the special provisions of the contract.

Employees of FLH are required to take appropriate action to suppress unauthorized or accidental fires on public lands; and they shall immediately report fires to the nearest responsible official. Employees of FLH may also be called upon by officials to help in suppressing fires, regardless of their origin or location. In such instances, assistance should be given promptly by all willing, able-bodied employees, and should continue until other forces are available.

If FLH employees are called upon to help extinguish fires, the Project Engineer should immediately forward this information to the COE, giving the names of the project personnel involved in fire fighting and other pertinent information. The COE should be asked for instructions regarding payment by other agencies for labor and other costs incurred.

Fire prevention is an item that should be discussed at the preconstruction conference. If Forest or Park officials are not present at the conference, the Project Engineer should arrange a meeting with them and the Contractor to discuss the subject.

The specifications impose a very strict obligation on the Contractor for any fires in the vicinity of the project caused by Contractor personnel. The Project Engineer should direct the attention of the Contractor to the contract requirements before work on the contract starts, and again when permitted burning operations begin.

When burning is permitted, the Engineer should determine that the Contractor has secured written permission from the Forest Service, National Park Service, or the local fire control authority, or any other agency having jurisdiction over the area. The special provisions may require the Contractor to furnish a fireguard, either as a subsidiary obligation or with the method of payment specified. When a fireguard is not required by the special provisions but is requested by the agency having jurisdiction over the area because of special conditions, the Project Engineer must take appropriate action to provide such a guard. The Contractor may be ordered to furnish a fireguard by contract modification if necessary and not provided in the contract.

The specifications usually provide that the Contractor, when requested by the Federal agency having local authority, make its forces temporarily available for fighting fires that occur in the vicinity of the project but are not caused by the Contractor. Although payment for such services is the obligation of the requesting agency, the Project Engineer should make appropriate entries in the project diary concerning the fire and the extent of the services provided by the Contractor.

6-3.5 Pits and Quarries

The specifications usually require the Contractor to strip the overburden from all Government owned or designated material pits and quarries, and stockpile this overburden for later use in reclamation of the sites.

After a pit has served its purpose, waste material stored outside the pit or quarry area should be moved back into the pit. The pit then should be neatly sloped and trimmed, and the side slopes flattened to the maximum extent possible to conform to the natural ground surface. The stockpiled overburden should then be uniformly spread over the sides and bottom of the pit or quarry. No direct payment will be made for this work unless otherwise provided

The restoration requirements for private/contractor furnished pits and quarries is generally a matter between the Contractor and the owner. However, some States have special environmental or mining requirements which may apply, and which may necessitate FLH involvement in restoration activities.

6-4 OPENING OF SECTIONS OF PROJECT TO TRAFFIC

There are two contractual situations where the Contractor may be required to open a partially completed portion of the project to public traffic.

If the opening is a part of an overall stage construction scheme which is a part of the Contract requirements, no special written order or directive is required. However, it may be prudent to go over the incomplete work involved and agree with the Contractor on the work remaining, and the Contractor's plan to protect and maintain the completed work. Generally the Contractor is responsible for such maintenance including vandalism and private vehicular accidents.

If the opening is unplanned, i.e. not a requirement of the Contract, the Government has a right under the Contract (FAR Clause 52.236-11) to order an opening, but may incur some liability for doing so. This situation should be discussed with the COE. The liability may include, but not be limited to increased construction costs to complete under traffic, and increased maintenance and possible vandalism costs. If the Government decides to open in spite of this liability, a written direction signed by a Contracting Officer is required.

In neither of these two cases is the Government accepting the partially complete work and the Contractor should be clearly advised of that and its continuing responsibility for completion and maintenance as appropriate.

6-5 CONTRACTOR'S RESPONSIBILITY FOR WORK

The contract provides that the Contractor is not responsible for damages due to cataclysmic phenomena of nature, acts of the public enemy, or acts of Government authorities. The Contractor is responsible for other kinds of damage to the work, even damages which are not the result of the fault or negligence of the Contractor. See FAR Clause 52.236-7, Permits and Responsibilities.

When damages occur, and the responsibility for those damages is in doubt, the Project Engineer should discuss the issues with the COE; and if immediate action is necessary, direct the Contractor to take necessary steps to repair the work. If a Contract Modification and compensation is in order, the CM should be processed through normal channels. The Project Engineer will keep exact accounts of work performed, so that payment can be made on an actual cost basis if necessary.

The payment to be made to the Contractor under the foregoing conditions should be full reimbursement for restoring the work to the condition at the time of the damage, less any salvage value of removed material.

6-6 UTILITIES

Utility relocation and adjustments are to be made by the utility company unless otherwise provided in the Contract. The specifications usually provide that the Government is responsible for coordinating with the utility and endeavoring to have all necessary adjustments made as soon as practicable, and that no additional compensation will be allowed the Contractor for any delays, inconvenience, or damage sustained due to any interference from the utility appurtenances or the operation of moving them. However, if such delays are unforeseeable and beyond the control of the Contractor, an adjustment in contract time may be justified. Also, if the utility fails to assume their responsibility for the adjustments in a reasonably expeditious manner, the Contractor may be entitled to a price adjustment in accordance with the Changes clause.

The specifications also usually provide that the Contractor shall not start work in areas where damage to utilities might result in considerable expenses, loss, or inconvenience, until after all arrangements necessary for the protection of the utilities have been made. The Contractor also must cooperate with the utility owners in their removal and rearrangement operations.

6-6.1 Government-Owned Utilities

Special procedures for removal and/or reconstruction of Government-owned telephone lines and other utilities have been agreed upon between FLH and some of the Regions of the Forest Service, but such procedures usually vary in minor details in the different Forest Regions. In general, all repair, reconstruction, and other telephone work should be handled by the Forest Supervisor or authorized representative. Park Service utility lines should be handled in a similar manner.

6-6.2 Privately-Owned Utilities

In most cases, the work by utility companies must precede work by the Contractor in the affected area. The Project Engineer should request the COE to verify that such work has been arranged. When possible, the Project Engineer should make

diary entries to document the operations of the utility companies as the work of adjustment or relocation progresses. Such data as the date of beginning of the work, the number of personnel working each day, the equipment and materials used, disposal of any salvaged material, and the date of completion of the work are particularly important.

When it is necessary to change the planned relocation from that shown on the plans accompanying the utility agreement, or when a significant increase in the estimated relocation costs is apparent, the COE must be immediately notified so that arrangements can be made for financing and modification of the agreement.

When costs of utility adjustments are to be reimbursed by the Government under a utility agreement, FLH records are important to allow reasonable verification of the utility company billing. Utility adjustments are normally one of three types with respect to payment:

- **Actual Cost** - The operation should ideally be observed daily, and diary entries made. It is not necessary that someone be assigned full time to this work, but it is desirable that diary entries be made not less than once a day.
- **Lump Sum** - The operation should be observed occasionally. Diary entries should be made for - when work starts, number of personnel, equipment, progress, shutdowns and reason (if available), and date work was completed.
- **No cost** - In some cases the utility must absorb its own costs for relocation, because that is a condition of its sharing the right-of-way. The same record as for **Lump Sum** should be kept except where the road Contractor might be delayed. When the utility adjustment is delayed or delaying the road Contractor, the Project Engineer should arrange for the same records as outlined under **Actual Cost** above.

When utility adjustment is delayed, and the Contractor proceeds to work in the affected area

or is hindered by such delay, the Project Engineer must keep adequate records in the project diary, and support them with appropriate photographs whenever practical. This information is of value in the event a claim is filed by the Contractor.

The Project Engineer may deal directly with the State or County right-of-way officials, and with public utilities on matters arising during construction. It is expected that the Project Engineer will obtain the appropriate account number in order to make proper charges for any services or costs involved, and that he/she will keep the COE informed of any information furnished, services performed, changes or problems. The COE will provide additional assistance and instructions when needed.

When field conditions require significant changes from plans or agreements, the Project Engineer should request the COE to arrange for a meeting with representatives from the utility company to reach a final decision on the change. Agreement modifications will be processed, funded, and approved by Division staff, based on data and estimates obtained at the above described joint meeting.

6-7 ENCROACHMENTS ON HIGHWAY RIGHT-OF-WAY

Where the right-of-way lies through privately owned land, the Project Engineer may become aware of the encroachment of buildings, fences, fixtures, or advertising signs on the right-of-way. The Project Engineer must ascertain from the plans or from the right-of-way agreement, whether the removal of such items is to be by the owner or the Contractor, and if by the Contractor, whether any salvage right has been retained by the owner or the Government. Any new encroachments, after construction has begun, must be reported to the COE who will follow up with instructions on the proper course of action.

6-8 CONSTRUCTION SAFETY

6-8.1 General

Federal law requires all FLH contracts to contain *FAR Clause 52.236-13, Accident Prevention*. This clause requires the work to be performed in accordance with the *Safety and Health Regulations for Construction (OSHA Part 1926)* published by the U. S. Department of Labor. Each Project office should have a copy of these regulations. The clause also obligates the contractor, without separate or additional payment, to safeguard the public, Government employees and Government property exposed to the construction. This obligation gives the Government the discretion to order correction of hazards *whether or not a specific hazard is specifically covered by the OSHA regulations*. The following procedures are to be followed to monitor and assure that contractor's safety program meets the requirements of the contract.

Contracts which are exceptional in terms of the duration or severity of hazards may contain a supplement to the FAR clause which requires the Contractor to submit a proposed safety plan to FLH prior to beginning construction. **Figure 6-8.1** is a **Suggested Outline for a Contractor's Safety Plan**. It should be provided to the Contractor at or before the Preconstruction Conference so that they know what we expect for a safety program. Even for contracts which do not have the FAR Clause supplement, the outline should be provided to the Contractor for information.

6-8.2 FLH Safety Responsibilities Prior to Start of Construction

1. At the Preconstruction Conference, emphasize the Contractor's safety responsibilities under FAR Clause 52.236-13, Section 100 of the FP and Contract provisions dealing with specific subjects such as work zone traffic control and explosives.
2. Approve or otherwise respond to the Contractor's Safety Plan submittal for contracts which include that provision.

Figure 6-8.2 is an **Example Approval Letter**.

3. For other contracts, some of the provisions of the plan may be applicable, and require emphasis at the Preconstruction Conference. For example:
 - Names of contractor employees with overall responsibility for safety management and supervision.
 - Posting of emergency procedures. Posting of appropriate telephone numbers, and locations of doctor, emergency services and hospitals.
4. Emphasize that the Contractor, not the Project Engineer is obligated to:
 - Perform routine safety inspections and otherwise monitor project safety.
 - Immediately correct or otherwise determine an appropriate response to complaints of safety deficiencies whether those complaints come from Contractor employees, the Government or the public.
 - Provide the required safety expertise to fulfill these obligations. It should not be assumed that FLH has, or will provide such expertise.
5. Advise the Contractor that the Contract requires that FLH notify the Contractor in writing of alleged safety deficiencies, and that the FLH Division will notify the State or Federal OSHA office responsible for construction safety monitoring if deficiencies are chronic or unresolved.
6. Advise the Contractor that if it fails to immediately correct safety deficiencies, especially high risk deficiencies, the Project Engineer is empowered to stop work on the affected operations until the deficiencies are corrected.
7. Advise the Contractor that the safety of public traffic and pedestrians in the vicinity

of the project is of paramount concern; and that all accommodation of the public will be in strict accordance with the Contract or subject to the direction and approval of the Project Engineer.

8. Advise the Contractor that inspectors, testers, and other Government employees and contractors working at the site are not obligated to work under unnecessary or unreasonable risks; and that the inspection and acceptance of the work may require accommodations to protect those personnel.
9. Advise the Contractor that it will be required to provide copies of all accident reports prepared for Government agencies or insurance carriers, to the Project Engineer.

6-8.3 FLH Safety Responsibilities During Construction Operations

1. FLH will not normally perform periodic, comprehensive project safety inspections or safety inspections of Contractor equipment, tools or workplace. However, if during the course of their other duties, FLH employees become aware of hazardous conditions which result from the Contractor's known or possible violation of either OSHA regulations, or reasonable standards of construction safety practice, as determined by the Project Engineer, the Contractor shall be notified immediately with a written follow up. See **Figure 6-8.3a** for an **Example Notification of a Safety Deficiency**.
2. Allegations of safety deficiencies may come from sources outside FLH and its onsite inspection staff. Client agency employees, contractor employees, others working at the site, or sometimes just private citizens passing through the site may point out what they think are safety violations. These allegations should be conveyed to the contractor in writing. The contractor shall be instructed to correct the deficiency if the Project Engineer is convinced that there is a deficiency. The contractor shall be asked to investigate the deficiency and take

appropriate corrective action if there is doubt as to whether a deficiency exists.

3. All safety deficiencies identified whether serious or minor, singular or repeated, should be considered failures of the Contractor's Safety Program, and the Contractor should be advised of the necessity not only to correct the deficiency, but to review and modify the program to prevent repeat occurrences.
4. When the Contractor has repeated minor deficiencies or avoidable accidents (more than three in any three month period), any serious or life threatening deficiencies, or any deficiencies which the Contractor failed to immediately correct, a copy of the written notification to the Contractor shall be provided to the State or Federal agency responsible for OSHA enforcement at the Project. See **Figure 6-8.3b** for an **Example Notification of Chronic Deficiencies**, requiring a copy to a State OSHA office. The COE should be advised prior to copying the State or Federal OSHA office. This level of safety deficiencies may also be a basis to request that the Division safety resource person assist in an overall inspection and evaluation of the Contractor's safety program. On National Park Service projects, NPS safety specialists may be invited to participate in such evaluations on a consultative basis. Such an inspection and evaluation would be especially appropriate if the response of the State OSHA office is inadequate to resolve the problem.
5. When any FLH employee observes a life threatening condition resulting from the Contractor's operations, the Contractor shall be ordered to immediately correct the situation. In addition, that portion of the

Once safety specialists have concurred in the Project Engineer's determination of chronic or unresolved deficiencies, appropriate actions under the terms of the Contract, such as issuance of a stop work order, may be warranted. Except for life threatening situation discussed below, the COE should be advised of, and concur in such actions.

5. When any FLH employee observes a life threatening condition resulting from the Contractor's operations, the Contractor shall be ordered to immediately correct the situation. In addition, that portion of the

work should be stopped until the hazard is corrected.

When in doubt the Project Engineer may elect to discuss the situation with the COE before taking action. However, it is generally better to err on the conservative side than to not take action when appropriate.

6. FLH onsite personnel are generally not trained as safety specialists, and should not directly or indirectly assume control, direction or responsibility for the Contractor's safety program. In advising the Contractor of apparent deficiencies, FLH personnel should not prescribe the corrective measures or procedures to be taken by the Contractor. In many cases, the Project Engineer may not know for sure that there is an OSHA violation. For example whether a given piece of equipment is required to have a ROPS (Roll Over Protection System) or other features. Upon notification, it is up to the Contractor to provide the expertise to determine if there is a violation, and to correct it if necessary, or respond to the Project Engineer in some credible manner if there is no deficiency.
7. In addition to its contractual responsibilities, FLH has a responsibility to ensure a safe working environment for its employees, other Government employees working in the vicinity and its other contractors (e.g. contract inspectors). None of these personnel should be required to perform inspection or other duties in an unsafe environment. If the unsafe environment is under the control of the Contractor, the superintendent should be advised that the work requiring inspection cannot be accepted until the unsafe condition is corrected. For example rolling operations may have to be suspended during testing if the compaction tester perceives a hazard associated with that equipment. If verbal notice proves ineffective, written notice to this effect should be provided.

6-8.4 High Risk Situations

There are certain high risk categories of safety hazards which are statistically of paramount importance and deserve special attention during administration of construction contracts.

1. Construction Vehicle Accidents - This category receives little mention in the OSHA regulations because it is so difficult to write general standards when every situation is different. However it is a leading cause of construction accidents and fatalities. If the Project Engineer perceives that deficiencies or unnecessary risks are present with respect to the use of construction vehicles, the Contractor should be advised whether or not a specific OSHA violation has occurred. Some of the deficiencies associated with vehicular accidents are:

- Failure to separate pedestrian workers from heavy equipment and other construction vehicles.
- Failure to provide working backup alarms or clearly identified signal persons in lieu of backup alarms.
- Failure to adequately plan and manage the movement of vehicles in congested or low visibility conditions.
- Failure to maintain brakes, ROPS and other safety equipment adequately.
- Failure to operate vehicles using due care and caution.
- Altering "as designed" configuration or safety features of equipment.

2. Interaction with Public Traffic - This is an increasingly serious category due to the percentage of highway construction projects being performed under traffic. See Sections 156 and 635 of the Contract, as well as corresponding sections of this Manual for additional guidance.

3. Trenching and Excavation - This is a

leading cause of construction accidents and fatalities, mostly due to the sudden and unexpected nature of such accidents when required precautions are not taken. In 1989 OSHA substantially revised the safety standards associated with trenching and excavation. See CFR 1926, Subpart P. **Figure 6-8.4** is a **Summary of OSHA Trenching and Excavation Requirements**. The actual regulations should be reviewed for exceptions and more detailed information. It is the contractor's obligation to have personnel who are trained in, or otherwise competent to implement the new regulations. FLH should not be put in the position of providing that competence, training the contractor or approving each trenching operation.

4. **Falls** - Scaffolding, rails, stairs & ladders meeting OSHA standards are the primary requirement. If that is impractical then safety belts and lifelines are required. If both are impractical then safety nets shall be provided at heights exceeding 7.6 meters. Vertically protruding reinforcing steel below walkways or persons working must be protected.
5. **Explosives** - Accidents often result from failure to have competent personnel in charge of blasting or failure to develop and follow a valid blasting plan. CFR 1926, Subpart U, and the Contract provisions contain the pertinent requirements.

Suggested Outline for Contractor's Safety Plan

- A. **Overall Responsibility** - Who will be responsible for the on site safety program? What are the credentials (training & experience) of that person? Will they have direct authority or will their authority be through the superintendent? Who will be responsible for reporting accidents and maintaining the accident log required by OSHA?
- B. **Subcontractors** -Will subcontractors be under prime's program or will they have their own program? If they have their own program, separate plans are required.
- C. **Safety Policy** - How will new employees be oriented and their responsibilities explained? How will all employees be oriented to specific project hazards or the hazards of new operations? How will drug & alcohol policy be conveyed to employees?
- D. **Personal Protection** -What conditions/operations will require personal protection equipment? Hardhats, ear plugs, steel toed boots, respirators, etc? Who will decide when protection is needed? Who will monitor its use?
- E. **Safety Meetings** - Who will conduct meetings? What will frequency be? Who will attend? How will subjects be selected?
- F. **Emergency Medical Care** - Telephone Nos. (Ambulance, Fire, Rescue). Directions. Prearrangements made - insurance, workmen's comp?
- G. **First Aid** - Names of trained employees. Names of CPR trained employees
- H. **Trenching and Excavating** - Who will be responsible for selecting slopes, shoring and protection systems during trenching operations? Is the person trained and competent in the revised (1989) OSHA regulations?
- I. **Hazard Recognition, Reporting and Abatement** - To whom will employees report perceived hazards? How will these reports be handled? Who will correct hazards?
- J. **Equipment Inspection** - Who will inspect construction and hauling equipment? Will it be inspected before shipment to project, or after? How will suppliers equipment be inspected(e.g. asphalt hauling trucks)?
- K. **Separating Pedestrians from Construction Vehicles and Public Traffic** - Are there hazards associated with pedestrians (contractor or public) moving amidst equipment and public traffic? How will these hazards be abated?
- L. **Jobsite Inspections** - Who will perform jobsite inspections? What will the frequency be? Will a report be generated? How will deficiencies be corrected? Immediate order or report back to superintendent?
- M. **Hazardous Materials** -Will hazardous materials be generated? Asphalt products, solvents, chemicals? What are special procedures for handling, disposing?
- N. **Explosives** - See Section 205 for special requirements. What are provisions for storage and inventory control of explosives?
- O. **Fire Fighting and Emergencies** - What are fire hazards requiring special attention? What resources are available for fire emergencies?

Figure 6-8.1



U.S. Department of Transportation
Federal Highway Administration
Federal Lands Highway Office

Construction Inc.
Myrtleville Drive
Oak River, CA 94601

November 12, 1992

Re: CA Forest Highway Project - PFH 168-3(2)
Winding River Road

Gentlemen:

This acknowledges our review of your project Safety Plan submitted at the Preconstruction Conference on October 16, 1992. The plan is approved with the following comments, and work may proceed on the basis on this approval.

1. The plan states that all work will comply with current OSHA standards. However, FAR Clause 52.236-13 does not limit your obligation to OSHA standard but provides that CO may order corrected any situation which poses a safety hazard, especially hazards to the public and Government employees. You should expect that periodically the Project Engineer will identify such situations.
2. The plan states that supplier's trucks will have backup alarms, or that an observer will signal when backing is safe. When these operations occur, and if some of the hauling units do not have backup alarms, you are requested to specifically identify to the Government's onsite inspector, who the observer is.
3. The plan states that jobsite safety inspections will be performed as necessary by the Project Superintendent. You are requested to establish a specific frequency for such inspections and so advise the Project Engineer of that frequency and the results of each inspection as it is performed.

If Project Engineer and onsite Government inspectors observe chronic or repeated



U.S. Department of Transportation
Federal Highway Administration
Federal Lands Highway Office

Construction Inc.
Myrtleville Drive
Oak River, CA 94601

May 11, 1993

Re: CA Forest Highway Project - PFH 168-3(2)
Winding River Road

Gentlemen:

On May 10, 1993 FLH inspectors observed an employee of your testing subcontractor attempting to take a compaction test in the vicinity Sta. 112. Visibility was poor due to dust from the scrapers. The tester had no safety vest. He was not shielded by a vehicle. Scrapers and other equipment seemed oblivious to his presence as they passed by at speed less than 3 meters away.

You are directed to review your overall safety plan for adequacy in this area, specifically how pedestrian workers are effectively protected when working in the vicinity of heavy equipment. Please advise the Project Engineer of actions you are taking to minimize this problem and similar situations in the future.

Sincerely yours,

J. Doe
Project Engineer

Example Notification of Safety Deficiency
Figure 6-8.3a



U.S. Department of Transportation
Federal Highway Administration
Federal Lands Highway Office

Construction Inc.
Myrtleville Drive
Oak River, CA 94601

June 4, 1993

Re: CA Forest Highway Project - PFH 168-3(2)
Winding River Road

Gentlemen:

This letter summarizes a number of safety problems which have occurred at the jobsite in the last several months. The frequency and/or seriousness of at least some of the problems suggest that your overall safety program is inadequate; or that to be effective, it should be implemented more assertively.

-In March, a crane outrigger foundation failed causing the crane's load to swing and damage some concrete formwork.

-Also in March, we advised you of concrete finishers working on planks approximately 5 meters above the ground, without adequate safety belts.

-In May we advised you that your compaction tester was observed working immediately adjacent to compaction and hauling equipment during periods of poor visibility and without adequate isolation of the test site from the construction operations.

-On May 26, 1993 several form bolts fell off the top of scaffolding at Pier No. 4 narrowly missing a workman.

You are hereby directed to review your overall safety program and to provide the enhancements necessary to prevent, in the future, these kinds of deficiencies and accidents, any one of which could have resulted in a fatality or serious injury. Please respond to this office in writing by July 1, 1993, detailing the actions you have taken or are taking to enhance your program. If the Government believes your safety program continues to be inadequate, FAR Clause 52.236-13 permit the suspension of all or part of the work pending corrections to the program. We will be compelled to consider such an action if the frequency of accidents and safety deficiencies does not diminish.

Sincerely yours,

J. Doe
Project Engineer

Example Notification of Chronic Deficiencies
Figure 6-8.3b

Summary¹ of OSHA Trenching and Excavation Requirements

Soil Classification

Classification	Description
Stable Rock	Solid rock which can be excavated with vertical sides which remain intact while exposed.
Type A Soil	Cohesive soil, caliche or hardpan that is not fissured, subject to vibration or other factors which would require it to be classified as a less stable material; and which has an unconfined compressive strength of at least 150 kilopascals.
Type B Soil	Cohesive soil that is fissured, subject to vibration or other factors which would require it to be classified less than Type A, but not Type C and which has an unconfined compressive strength between 50 and 150 kilopascals; granular cohesionless soils including silt, silty loam, sandy loam; angular gravel or crushed rock; previously disturbed soil.
Type C Soil	Cohesive soil with an unconfined compressive strength of less than 50 kilopascals; cohesionless soils including rounded rock, sand; submerged or saturated soil, submerged rock that is not stable; layered systems which dip into the excavation at a slope of 1:4 or steeper.

Maximum Slope and Trenching Depth Unsupported Trenches

Soil Type	Maximum Slope	Maximum Depth ²
Stable Rock	Vertical	6.0 meters
Type A, B or C	Vertical	1.5 meters
Type A Soil	1.3:1	6.0 meters
Type A Soil (Alternate)	Vertical and 1.3:1 ³	1.1 meters 2.5 meters ⁴
Type A Soil (Alternate)	Vertical and 1:1 ³	1.1 meters 3.6 meters ⁴
Type A Soil (Short Term) ⁵	2:1	3.6 meters
Type B Soil	1:1	6.0 meters
Type C Soil	1:1.5	6.0 meters

Notes:

- 1 - This material is a summary of OSHA regulations published in CFR 1926, Subpart P, Appendix A and B. The regulations themselves are not written in SI units, and are more detailed than the summary presented here; and therefore should be used to resolve actual job site questions and interpretations.
- 2 - Support systems for trenches over 6.0 meters deep must be designed by a registered Professional Engineer.
- 3 - Maximum slope above vertical portion of trench.
- 4 - Maximum total depth including vertical portion of trench.
- 5 - Short term means 24 hours or less.
- 6 - All soil must assumed to be Type C, unless a competent person, provided by the Contractor, following the procedures in CFR 1926, Subpart P, Appendix A, determines that it is Type A or Type B.
- 7 - See CFR 1926, Subpart P, Appendix B for details regarding compound slopes, stepped slopes and permitted use of shoring and support systems.
- 8 - Design of shoring and support systems must comply with CFR 1926, Subpart P, Appendix C or D; be a commercial system used in accordance with manufacturers recommendations; or be designed by a registered Professional Engineer.

**Summary of OSHA Trenching and Excavation Requirements
Figure 6-8.4**