general consensus that it would be desirable to establish a time period following completion of the utility relocation work during which final billings must be submitted, but that 180 calendar days were not enough. Hence, § 645.117(i)(2) is amended to require utilities to submit final billings within one year following completion of the utility relocation work, otherwise previous payments to the utility may be considered final, except as agreed to between the SHA and the utility.

Comment 4

One SHA requested clarification of the term "completion of work" as it is used in the proposed amendment to $\S 645.117(i)(2)$. For example, the commenter asked whether the work would be completed when finished in the field by the utility or its contractor, when the highway project was finished, or at some other milestone.

Response

The intent of the proposed amendment was to require utilities to submit final billings within a certain time period following physical completion of the utility relocation work in the field. Hence, § 645.117(i)(2) is amended to require utilities to submit final billings within one year following completion of the utility relocation work.

Comment 5

One SHA suggested that the proposed amendment to require utilities to submit final billings within 180 calendar days following completion of work be modified to allow for time extensions beyond the 180 calendar day limit if the SHA should so choose. The SHA argued that this modification was needed to alleviate conflicts with a State law permitting claims against the State to be submitted within one year from the time of accrual.

Response

This recommendation was adopted. As stated in the NPRM, the FHWA intended to allow billings received after the specified time period to be paid at the discretion of the highway agency. Hence, § 645.117(i)(2) is amended to require utilities to submit final billings within one year following completion of the utility relocation work, with exceptions as agreed to between the SHA and the utility.

Comment 6

Five utilities commenters recommended that the definition of "clear zone" in the proposed amendment to § 645.207 be modified to clearly indicate that the clear zone ends at the right-of-way line.

Response

This suggested amendment was not made to the "clear zone" definition, but was incorporated elsewhere in the regulations. The purpose for amending § 645.207 was to provide consistency with AASHTO's "Roadside Design Guide." To do so, the term "clear recovery area" was changed to "clear zone" and the definition of "clear zone" in the "Roadside Design Guide" was adopted. However, to clarify the intent of the revised regulation, a definition of "border area" was added. This, taken together with the definition of "clear zone," means that the area that actually can be made available for the safe use of errant vehicles is limited by the rightof-way width. For all practical purposes, the old definition of "clear recovery area" is the same as the actual clear zone. In cases where sufficient right-ofway is not available to accommodate the minimum clear zone distance required, highway agencies should consider acquiring additional right-of-way, taking into account not only clear zone but other highway and utility needs. In all cases, full consideration should be given to sound engineering principles and economic factors. Utility facilities should be treated the same as other roadside hazards. Little will be gained by moving utilities, unless their presence in the clear zone presents a significantly greater hazard to motorists than any other hazards.

Comment 7

One SHA suggested that TTI's "A Supplement to a Guide for Selecting, Designing, and Locating Traffic Barriers" be included with the AASHTO "Roadside Design Guide" as a good technical reference in the proposed amendment to § 645.207.

Response

This suggestion was not adopted. AASHTO's "Roadside Design Guide," 1989, superseded AASHTO's "Guide for Selecting, Designing, and Locating Traffic Barriers," 1977, and the TTI supplement which came into use in the early 1980's, even though much of the guidance in the new document was the same as in the superseded documents. One significant difference between the "Roadside Design Guide" and the two earlier documents is the determination of minimum clear zones on slopes. Current AASHTO guidelines consider embankment slopes between 3:1 and 4:1 to be non-recoverable (i.e., any vehicle leaving the roadway will likely go to the bottom of the slope). Consequently, the

clear zone should not end on the slope itself, and a clear run-out area beyond the toe of such a slope is desirable. This was not considered in the 1977 barrier guide or the TTI supplement, so the information in these documents is no longer accurate for non-recoverable slopes. Any SHA may modify the earlier guidance and continue to use it to determine minimum clear zones on existing facilities. However, the FHWA believes a more practical approach is for each highway agency to develop and implement a policy on utility pole locations that encourages maximum offsets consistent with existing conditions and based on a costeffectiveness analysis.

Comment 8

One SHA expressed a concern about non-regulatory guidance in the FHWA's "Federal-Aid Policy Guide" ³ dealing with the use of fixed amount (lump sum) payments to utilities. The wording in the non-regulatory supplement to part 645 (NS 23 CFR 645A, Attachment), case I, paragraph 2, indicates that the lump sum payments may be made for work performed by a utility with its own forces. It was requested that the FHWA guidance in the non-regulatory supplement be revised to allow lump sum payments to be made for work performed for a utility under a utilitylet or continuing contract.

Response

Provisions for lump sum payments for utility relocation work were first addressed by the FHWA in PPM 30-4 dated December 31, 1957. These provisions pertained to very minor work estimated to cost less than \$2,500, work that normally would be performed by a utility with its own forces. There was no apparent intent, however, in PPM 30-4 or any subsequent FHWA guidance or regulation, to preclude lump sum payments for work performed by a contractor under a utility-let contract. If the utility uses an existing continuing contractor, payment should be made by the method the utility has previously established with the contractor. If the continuing contract establishes a lump sum payment for certain types of work, this payment method can be used for the Federal-aid project if the SHA believes the cost is reasonable. If the utility lets a contract, payment should be based on the methods that are customary and acceptable for the work

³The Federal Highway Administration's "Federal-Aid Policy Guide" is available for inspection and copying from the FHWA headquarters and field offices as prescribed at 49 CFR part 7, appendix D.