

CHAPTER 7

CONTRACT DESIGNATION

7-1. General. A list of stone sources is usually supplied as a part of the contract specifications. The contractor is allowed to furnish large stone from any listed source. An unlisted source may be used by the contractor provided that subsequent inspection and testing by the Government indicate that materials are in compliance with the contract specifications. To minimize business risk and possible delay associated with opening a new quarry, many contractors prefer to use listed quarries. After the award of the contract, the contractor is usually required to designate in writing the source or the combination of sources proposed for each specified stone material. Determining the suitability and use of large stone from required excavation for project construction (Chapter 5) is the responsibility of the Government. Contracting should always conform to the Federal Acquisition Regulation.

7-2. Specifications.

a. Riprap Construction. Guide specifications for riprap are available in CE-1308. These specifications are used for construction contracts as appropriate and are supplemented with the list of sources of stone for the specific projects.

b. Breakwater and Jetty Construction. Guide specifications are not available Corps-wide for construction of breakwaters and similar massively armored structures. Previously satisfactory job specifications are often used as a nucleus and carefully modified for project location, conditions, available transportation, and construction methods (Figure 7-1). Use of recently approved project specifications or sections thereof is in accordance with paragraph 7d. of ER 1110-2-1200.

Each stone shall be individually placed by equipment suitable for lifting, manipulating, and placing stones of the size and shape specified. No stone shall have a longest dimension less than two or more than three times its shortest dimension as determined along perpendicular axes passing through the approximate center of gravity. Each stone shall be placed with its longest axis perpendicular to the armor slope. Placing efforts shall ensure that each stone is firmly set and supported by underlying materials and adjacent stones. Loose stones shall be rest or replaced.

Figure 7-1. Example of method specification for armor-stone placement. (Not intended for direct use; this example only illustrates how technical data are ultimately presented in contract language)

c. Rockfill Construction. Satisfactory construction of an embankment of rock fill often depends heavily on the construction practice. Accordingly, it has been common practice to prescribe in the specifications the methods of construction as well as the results to be obtained. Such specified methods include type roller, lift thickness, and number of passes. Lifts are commonly limited to a maximum thickness known from previous experience or from field tests to produce the required overall results. Practices capable of leaving detrimental stratification or low-density pockets are explicitly prohibited in specifications. Engineer Manual 1110-2-2300 gives general guidance on design and construction of rockfill dams.

7-3. Listed Sources.

a. Listed sources are those identified in the GDM or in the FDM on construction materials. Changes and updating may be necessary, particularly after a long delay since preparation of the DM. Special factors or conditions which might conceivably interfere with satisfactory supply from the listed source need clarification. The exclusion of certain rock strata or the use of special quarrying procedures such as a low bench height are examples of such limitations.

b. When a listed source is selected for use, the contract usually requires that the contracting officer be notified in writing of the selection 30 calendar days before the material will be used in the work. The written notification should identify the specific areas, ledges, lifts, and geologic units to be used within the source. The contractor should be notified of approval or approval with restrictions in regard to the choice within the contractually allotted time.

7-4. Unlisted Sources.

a. Requirements. The contractor is usually allowed to designate one unlisted source or combination of sources for each class of stone. Once that unlisted source is selected, its name and location must be furnished to the Government in writing. Additional useful information such as areas, lifts, specific strata, and available laboratory testing records is usually required. Next, the contracting officer's representative should inspect the selected source to verify the presence of material that meets all requirements specified in the technical provisions. Stone from the proposed source must then be sampled and tested.

b. Sampling and Shipping. The contractor should provide suitable samples for testing as required by the contract specifications. Figure 7-2 shows how this requirement might be presented in the special provisions of the contract. It is axiomatic that samples be representative of the size and quality of stone to be used in the project.

c. Testing. Testing necessary to evaluate an alternate source selected by the contractor but not among the listed sources should be made at the Government's expense at a division laboratory or substitute approved by the Government. The required testing and criteria for acceptability should be stated in the contract. Ambiguities should be avoided and terms such as "suitable" and "durable" should be defined. Guidance is provided in Chapter 6.

Sampling and Shipping. The Contractor shall provide for a suitable sample(s) of the materials proposed to be furnished for testing and approval. Stone and aggregate sample(s) shall be furnished and delivered to the laboratory ninety (90) calendar days prior to the need of such materials at the site of the work. The ninety (90) days time shall begin at the time the samples are actually received at the Laboratory. Samples for acceptance testing shall be provided as required by Sections _____ and _____ of the TECHNICAL PROVISIONS. Samples shall be representative of the size and quality of materials to be used on the project. Material actually furnished under the contract shall be of quality at least as good, in the judgment of the Contracting Officer, as sample(s) furnished. The Contracting Officer's representative shall be present during sampling and approve the selection of all samples before shipment. The Contracting Officer's representative may personally select all samples if he so elects. Sampling and shipping of sample(s) shall be at the Contractor's expense. Sample(s) shall be selected from the proposed sources of supply and shall be shipped and/or delivered to the Director, Division Laboratory, Corps of Engineers,

(Address)

Figure 7-2. Example special provisions on sampling representative stone from unlisted source of armor. (Not intended for direct use; this example only illustrates how technical data are ultimately presented in contract language)

d. Completion Time. The time for completion of Government testing should be realistically chosen and coordinated with the Government laboratory of choice. If a commercial laboratory is used, an appropriate length of time including sample delivery, testing, and data analysis should be stated. Guide specification CE-1308 indicates at least 60 days of lead time for riprap. The stated contract completion time should not be extended for sampling and testing unlisted sources.

e. Unsuitable Unlisted Source. When an unlisted source designated by the contractor is disapproved by the contracting officer, the contractor must choose a listed source.

7-5. Modification. Variations possible within some material types have occasionally led to production of stone differing substantially in unit weight from requirements in the specifications. To avoid design deficiencies, an appropriate technical provision for redesign has been used in some contracts (Figure 7-3). The contracting officer may modify the stone sizes requirement and layer thickness and make a new determination of quantities as a part of the approval process.

14.3 Allowable Range of Specific Gravity and Conditions for Redesign. If the Contractor, after award of the contract, requests approval of stone from a listed or other source(s) which has a bulk specific gravity, saturated surface dry basis (SSD), whose limits are different by more than plus or minus 5 percent from those specified in Section ___ of TECHNICAL PROVISIONS, it shall be cause for the Contracting Officer to redesign the stone sizes and/or layer thickness subject to the following conditions:

(1) Savings due to redesign based on changes in specific gravity, if any, shall not be subject to the clause entitled VALUE ENGINEERING INCENTIVE CONSTRUCTION of the contract GENERAL PROVISIONS.

(2) Only one such redesign modification will be allowed. The required completion time shall be extended not more than 30 days as a result of redesign for any reason, including acts of the Government.

(3) The modified design bulk specific gravity, SSD of stone proposed to be used shall conform to that specified in paragraph ___.

(4) The stone sections of the required structure will be redesigned by the Government at Government expense. Such redesign will be based on the Contractor's proposed revision of the specified design average bulk specific gravity, SSD and will include any required revisions to allowable tolerances.

(5) The Government shall be allowed a period of 21 calendar days after receipt of the test records for the bulk specific gravity to make the redesign.

(6) Upon completion of the redesign, it will be furnished to the Contractor, including revised estimated quantities for the PRICE SCHEDULE, based on the proposed modified average bulk specific gravity SSD.

(7) There will be no change in the unit prices, prior to application of the VARIATION IN QUANTITIES clause of the contract.

(8) When stone to be furnished is within the specified range of specific gravity, no redesign will be considered or made.

Figure 7-3. Example specifications for modifying design after award of contract. (Not intended for direct use; this example only illustrates how technical data are ultimately presented in contract language)