5:01.2 The CONTRACTOR shall be responsible for the preparation of written procedure(s) to set forth how the work to be performed under the specification will be carried out. The party performing the work shall also prepare a written quality control procedure setting forth what tests will be executed to substantiate compliance with the specification. Such written procedures shall be submitted to the ENGINEER for review and comment. These procedures shall be written prior to the starting of any of the work.

5:01.3 Prior to placing of concrete on compacted fill, the fill shall be checked for the percentage compaction required under Section 2:01.1. The subgrade shall be free of debris and organic material and shall be wetted thoroughly.

5:01.4 Before concrete is placed on a hardened concrete surface, it shall be free of laitance and foreign material. Horizontal and vertical construction joints in the reactor building cylindrical shell and dome shall be prepared for receiving the next pour by either sand-blasting, air water jet, bush hammering, or other means to remove all coatings, stain, debris, or other foreign material.

5:01.5 In conveying of concrete from mixer to concrete in place, only those methods and arrangements of equipment should be used which will reduce to a minimum any separation of coarse aggregate from the concrete. Equipment should be capable of expeditiously handling and placing concrete of such a proper consistency, grading, and maximum size of aggregate, at the rate most favorable to good quality and workmanship. The conveying equipment shall be in accordance with ACI 301-67, Chapter 8 and ASTM C-94-67.

★★★★ 5:01.6 If concrete is deposited on a hardened concrete surface, a 1/2 inch layer of neat grout shall be applied before concrete is deposited. Concrete shall be deposited continuously and in horizontal layers not exceeding 18 inches, avoiding inclined construction joints. It is important that each layer be shallow enough so as to be placed while the previous layer is still soft and that the two layers be vibrated together. No concrete shall be deposited in concrete which has hardened sufficiently to cause the formation of seams or planes of weakness within the section. Concrete shall be placed with the required consistency to assure proper workability. The placing of concrete around reinforcing and embedded items shall be by methods that will not cause movement or damage. The maximum free fall of concrete shall be three feet.

5:01.7 All concrete shall be consolidated by vibration, spading, or rodding so that the concrete is thoroughly worked around the reinforcement, embedded items, and into corners of forms, eliminating all air or rock pockets which may cause honeycombing, pitting, or planes of weakness. If vibrators are used, they shall have adequate power and be of high frequency, rugged, and reliable. When immersed in concrete, the vibrator shall have a minimum frequency of 7000 rpms. Over-vibrating and the use of vibrators to transport concrete within the

★★★★ See add. D

4:01.2 Horizontal and vertical construction joints in the reactor building cylindrical shell and dome shall be prepared for receiving the next pour by either sandblasting, air water jet, bush hammering, or other means to remove all coatings, stains, debris or other foreign material. The horizontal joints shall be dampened (but not saturated), then thoroughly covered with a coat of neat cement mortar of similar proportions to the mortar in the concrete. The mortar shall be at least 1/2 inch thick and fresh concrete shall be placed before the mortar has attained its initial set. The vertical joints shall be dampened (but not saturated) before concrete is placed.

4:02 Expansion Joints

4:02.1 Premolded expansion joint filler shall conform to "Spec. for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Non-bituminous Types)," ASTM D 1752-66.

4:02.2 The location size and detail of fillers shall be as shown on the Drawings.

4:02.3 The expansion joints shall be sealed with a material compatible with the premolded expansion joint filler.

4:03 Water Stops

4:03.1 Water stops shall be polyvinyl chloride water stop of the dumbbell, bulb or serrated type as manufactured by W. R. Grace & Co. or approved equal. The location, size and detail of water stops will be as shown on the Drawings.

4:03.2 Vulcanizing of water stop shall be inspected and approved by the Inspector or OWNER. Nailing of water stop shall be free of oil, grease, grout, or any other material that prevents good seal.

5:00 QUALITY CONTROL

5:01 Concrete

5:01.1 Each week the CONTRACTOR shall submit to the ENGINEER a concrete pour schedule. (This schedule will give the ENGINEER advance notice so he may check the drawings ahead of time and help eliminate possible problems before pour time.)

The CONTRACTOR shall initiate a concrete pour checkout form to assure that all crafts have completed their work prior to concrete placement. After the form has been signed by each craft, it shall be given to the TESTING LABORATORY and/or ENGINEER prior to concrete placement. This form shall be kept as a record for that pour. Each pour shall have a checkout form.

See addendum A. See addendum D. See add E.