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CONSTRUCTION SPECIFICATION  
INSTRUCTION FOR USE  
CS-I-OR-220 REINFORCED CONCRETE

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220.1 APPLICABILITY

Construction Specification CS-OR-220 is applicable for all reinforced concrete structures. This specification shall be used for concrete structures, regardless of size, when quality control of the concrete design mix is essential. Supplementary specifications may be required for works of a special nature, such as: placing concrete under water; pumping concrete; concrete exposed to high sulfate environments; and special finishes.

220.2 MATERIAL SPECIFICATIONS

The following material specifications complement Construction Specification CS-OR-220:

- a) MS-OR-522---Aggregates for Portland Cement Concrete
- b) MS-OR-531---Portland Cement
- c) MS-OR-301---Concrete
- d) MS-OR-539---Steel Reinforcement (for Concrete)
- e) MS-OR-535---Preformed Expansion Joint Filler.

220.3 ITEMS TO BE INCLUDED IN THE SPECIFICATIONS AND ON THE DRAWINGS

- a) Detail and cross-section drawings that are sufficient for describing the structure are to be shown on the drawings.
- b) The type and quality of concrete should be specified and shown on the drawings, including:
  - 1. 28-day compressive strength.
  - 2. Type of cement.
  - 3. Admixtures, type and quantity.
  - 4. Nominal size and gradation of coarse aggregate.
  - 5. Fineness modules of the fine aggregate.
  - 6. Deviations, if any, from the air content and slump of Material Specification, MS-OR-301 Concrete.
- c) Reinforcement details including: size, grade, cover and development and splicing lengths should be specified and shown on the drawings.

- d) Type, size and quantity of joint filler, waterstops, shear plates and other embedments should be specified and location shown on the drawings.
- e) Detail joints, type and dimensions should be specified and shown on the drawings.
- f) Specify the method of curing.

#### 220.4 ITEMS OF WORK AND CONSTRUCTION DETAILS

Starting at the top of page 220–18, prepare and outline job specific "Items of Work and Construction Details" (IWCD) in accordance with these instructions.