



DSA Structural Amendments under review are highlighted in GRAY

Template 19-04

2001 CBC - Chapter 19A
CONCRETE

Section - 1903A - SPECIFICATIONS FOR TESTS AND MATERIALS

Subsection(s) - 1903A.3.2.1

1 1903A.3 Aggregates.

2 ● ● ● ●

3

4 1903A.3.2 Aggregate Size.

5

6 1903A.3.2.1 [For DSA/SS] The nominal maximum size of
7 coarse aggregate shall not be larger than:

- 8 1. One fifth the narrowest dimension between sides of forms,
9 or
10
11 2. One third the depth of slabs, or
12
13 3. Three fourths the minimum clear spacing between individ-
14 ual reinforcing bars or wires, bundles of bars, or prestress-
15 ing tendons or ducts.
16

17 These limitations may be waived if, in the judgment of the
18 structural engineer and the enforcement agency, workability and
19 methods of consolidation are such that concrete can be placed
20 without honeycomb or voids and the mixes are designed and
21 tested in accordance with Method B or C of Section 1905A.
22

23 Evidence that the aggregate used is not reactive in the presence
24 of cement alkalis may be required by the enforcement agency. If
25 new aggregate sources are to be used or if past experience indi-
26 cates problems with existing aggregate sources, test the aggregate
27 for potential reactivity according to ASTM C 289. If a result other
28 than innocuous is obtained, test the cement-aggregate combina-
29 tion according to ASTM C 227 using the cement corresponding to
30 that on which the selection of concrete proportions was based (see
31 Section 1905A.2). If the results of this test indicate an expansion

32 greater than 0.10 percent at six months, the aggregate shall be
33 deemed to contain reactive substances in amounts deleterious to
34 concrete, and shall be used with a cementitious material system
35 suitable for preventing alkali-aggregate reaction as follows:

36
37 1. Low-alkali portland cement containing not more than 0.6
38 percent total alkali when calculated as sodium oxide, as deter-
39 mined by the method given in Methods of Chemical Analysis of
40 Hydraulic Cement, ASTM C 144.

41
42 2. Blended hydraulic cement, Type 1S or 1P, conforming to
43 UBC Standard 19-1, Part III, except that Type 1S cement shall not
44 contain less than 40 percent slag constituent.

45
46 3. Replacement of not less than 15 percent by weight of the
47 portland cement used by a mineral admixture conforming to
48 ASTM C 618.

49
50 4. Replacement of not less than 40 percent by weight of the
51 portland cement used by a ground granulated blast-furnace slag
52 conforming to ASTM C 989.