

# APPENDIX G

## PETROGRAPHICAL EXAMINATION OF AGGREGATES FOR ALKALI-SILICA REACTION

### 1 Geologist

All work described in this Appendix shall be carried out by an independent qualified geologist experienced in aggregate petrography.

### 2 Aggregate Obtained From a Quarry or Pit - Selection of Material for Samples.

- (i) The geologist shall examine all the faces being worked and consult the relevant geological maps and other data available such as borehole logs, samples or cores.
- (ii) The geologist shall then select material for the samples and shall ensure that careful records are made of the location in the quarry or pit from which each sample is taken.
- (iii) Where the formation is complex or where the geologist considers it necessary, samples may be required from boring to prove the consistency of the parent strata or to locate the presence or absence of reactive minerals.

### 3 Aggregates Obtained From a Marine Source - Selection of Material for Samples

- (i) (05/04) The geologist shall establish the boundaries and levels of the material which is to be extracted and offered as compliant with Series 1700 and BRE Digest 330.
- (ii) The geologist shall then select the locations and levels from where samples are to be taken and shall be present during the dredging operation to ensure that the source of each sample is correctly recorded.
- (iii) Alternatively, where all the coarse aggregate or sand (ie fine aggregate) to be supplied for the Contract are present in stockpiles at one time, the geologist may opt to take samples at that time from those stockpiles.

### 4 Petrographical Examination of Samples

Qualitative and quantitative examination of each sample shall be carried out in accordance with BS 812 : Part 104.

### 5 Report by the Geologist

(05/04) The geologist shall produce a report on each sample and shall state whether the material is low reactivity, normal reactivity or high reactivity aggregate in accordance with Series 1700 and BRE Digest 330.