```
C   calculation of the interparticle distance
3                    DX = X(J) − X(KT)
                     DY = Y(J) − Y(KT)
                     R2 = DX * DX + DY * DY
                     H2 = H(KT) * H(KT)
C   if KT is close enough to J then KT is the (NNEIB + 1)th neighbour of J
                     IF (R2.LT.H2) THEN
                        K = NNEIB(J) + 1
                        NNEIB(J) = K
                        ITNEIB(J, K) = KT
                     ENDIF
C   use of the chaining to find the next neighbour
                     KT = ICHAIN(KT)
                     IF (KT.NE.0) GO TO 3
2       CONTINUE
1    CONTINUE
```

where NC is 1 for the 3×3 block and 2 for the 5×5 one.

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