```
1   }
2       --- create hazard associations from each Hazard Relation Diagram
3       --- component to the Hazard Relation.
4       --- first, create hazard association between hazard and Hazard Relation
5       let ha_1^hazRD = (h^hazRD, hr^hazRD)
6       --- second, create hazard association between safety goal and Hazard Relation
7       let ha_2^hazRD = (sg^h, hr^hazRD)
8       --- third, create hazard association between top-most
9       --- trigger condition and Hazard Relation
10      let ha_3^hazRD = (tc^h, hr^hazRD)
11      --- subsume all three hazard association into one set of Hazard Relations
12      let HA^hazRD = {ha_1^hazRD, ha_2^hazRD, ha_3^hazRD}
13      --- fourth (to n-th), create hazard association between every mitigation
14      --- partition and the Hazard Relation and add to set of Hazard Associations
15      foreach pm_i^h ∈ CM^hazRD {
16          let HA^hazRD = HA^hazRD ∪ ha_tmp^hazRD | ha_tmp^hazRD = (pm_i^h, hr^hazRD)
17      }
18      --- create a Hazard Relation Diagram tuple from all components
19      let hrd = "HRD for Hazard" + h^hazRD
20      hazRD = (hrd, AD^hazRD, h^hazRD, T^h, sg^h, MP^hazRD, hr^hazRD, HA^hazRD)
21      return hazRD
    }
```

Listing 8 Pseudo-Code Signature $append^{HA}$ of the QVTo Script q^{hrd}.