Comparison of Network FIREBIRD Predictions with a RD-12 5% Inlet Header Break Blowdown Experiment

M.A. Couturier and D.F. Rennick

ABSTRACT

FIREBIRD blowdown calculations are compared with the corresponding experimental results following a 5% inlet header break in RD-12. With minor exceptions, the network code used for this study is numerically identical to the reactor blowdown/ECC version of FIREBIRD.

The sensitivity of the results to several selected geometric input quantities is investigated. Using slip and drift, the comparison is reasonable within the sensitivity of results to geometric inputs. A single case, run without slip and drift, demonstrates the need for inclusion of this modelling for cases with low mass flux.