

SUBMARINE CABLE JOINTING PERFORMANCE

REPORT No. 20

1 April 2002

EXECUTIVE SUMMARY

This report adds the data from 11 repairs to the 244 already logged in the database (29 joint construction processes analysed). CS Dock Express 20, CS Fu Xing and CS Seaspread are brought into the scope of IPRS for the first time, bringing the total number of ships reported within IPRS up to 26.

Since the last report the average joint construction failure rate has improved from 18.5% to 18.2%. If data for repairs undertaken more than 3 years ago is excluded from the statistics, the average joint construction failure rate has improved from 16.5% to 15.9%.

A total of 2326 hours have been lost due to jointing problems declared during construction of the 661 joints analysed since January 1996. For joints using UJ technology, there are 13 failure categories against which fibre splicing ; moulding/x-ray and broken fibre issues register 26% 24% and 17% respectively. Whilst the failure rates for fibre splicing and moulding/x-ray issues have significantly improved during the last 3 months, the failure rate for broken fibre issues has worsened – see Section C, Page 5.

24 new RFIs have been issued for investigation by the ship operators and since the last IPRS report there have been responses to 23 outstanding RFIs.

Document control is critically important for successful cable jointing because the use of superseded documents increases the potential for subsequent failure. In CR249 and CR252 there is evidence that superseded joint construction documents have been used. A Request For Information (RFI) has been raised with the ship operator concerned.

The cost of jointing failure is very significant. Aside from the direct cost of the cables and increased system outage time, further expenses sometimes arise from the use of extra joints and cable. Such additions penalise system margins, thus introducing latent problems. Joint construction failures occasionally cause entry into bad weather periods with prolonged delay potential.

Several benchmark indicators have been established through which future jointing performance trends can be monitored and targets set for improvement - see Section C.