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| | Wave Simulators; 6.4 Steady Currents; 6.5 Hydrodynamic Forces; 6.6 References; Chapter 7. Finite Element Analysis of In-situ Behavior; 7.1 Introduction; 7.2 Description of the Finite Element Model; 7.3 Steps in an Analysis and Choice of Analysis Procedure; 7.4 Element Types used in the Model; 7.5 Non-linearity and Seabed Model 7.6 Validation of the Finite-Element Model 7.7 References; Chapter 8. On-bottom Stability; 8.1 General; 8.2 Force Balance: The Simplified Method; 8.3 Acceptance Criteria; 8.4 Special Purpose Program for Stability Analysis; 8.5 Use of FE Analysis for Intervention Design; 8.6 References; Chapter 9. Vortex-induced Vibrations (VIV) and Fatigue; 9.1 General; 9.2 Free-span VIV Analysis Procedure; 9.3 Fatigue Design Criteria; 9.4 Response Amplitude; 9.5 Modal Analysis; 9.6 Example Cases; 9.7 References; Chapter 10. Force Model and Wave Fatigue; 10.1 Introduction; 10.2 Fatigue Analysis 10.3 Force Model 10.4 Comparisons of Frequency Domain and Time Domain Approaches; 10.5 Conclusions and Recommendations; 10.6 References; Chapter 11. Trawl Impact, Pullover and Hooking Loads; 11.1 Introduction; 11.2 Trawl Gears; 11.3 Acceptance Criteria; 11.4 Impact Response Analysis; 11.5 Pullover Loads; 11.6 Finite Element Model for Pullover Response Analyses; 11.7 Case Study; 11.8 References; Chapter 12. Installation Design; 12.1 Introduction; 12.2 Pipeline Installation Vessels; 12.3 Software OFFPIPE and Code Requirements; 12.4 Physical Background for Installation; 12.5 Finite Element Analysis Procedure for Installation of In-line Valves |
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