

Facility	Mumbai High North Offshore Platform
Date	27 th July 2005
Consequences	22 workers dead
Description of accident	<p><i>Description of Mumbai High North complex</i></p> <p>The Mumbai High North complex consists of four bridge-linked platforms at approximately 100kms from the shore.</p> <ul style="list-style-type: none"> • NA is a small wellhead platform (1976) • MHF is residential (1978) • MHN is a processing platform (1981) • MHW is a recent additional process platform <p>The complex imports well fluids from 11 wellhead NUIs, and exports oil to shore as well as gas for gas lift operations. The platform/field is operated by the Oil & Natural Gas Corporation (ONGC), a nationalised oil company.</p> <p>At the time of the accident, a jack-up named Noble Charlie Yester (NCY) was working on NA and it was the monsoon season.</p> <p><i>Description of accident</i></p> <p>The fire occurred on 27 July 2005. A multipurpose support vessel (MSV) measuring 100m long, the Samundra Suraksha, hit one of the MHN platform risers.</p> <ul style="list-style-type: none"> • The vessel was owned by ONGC but operated and maintained by another nationalised company, the Shipping Company of India (SCI). The vessel was working elsewhere in the field, supporting saturation diving operations. A member of the personnel on the vessel was injured and therefore sought transfer to MHN complex for medical treatment. The Monsoon meant that no helicopters were available and the vessel came alongside MHN to affect a man-riding basket transfer. • The Leeward crane on MHN was not working, so the vessel came onto the windward side (wind 35 knots, swell 5 metres, sea current 3 knots). • There were some problems with azimuth thrusters and the vessel came alongside under manual (joy stick) control in emergency mode, stern first. The casualty was transferred off the deck by crane. • The vessel experienced a strong heave, and the helideck struck the risers (export gas lift). • The resulting leak ignited very quickly afterwards and the resulting fire engulfed virtually all of MHN and MHF, with NA and the Noble rig severely affected by heat radiation. <p><i>Escape and rescue</i></p> <ul style="list-style-type: none"> • 22 people died and 362 were rescued over a fifteen hours period. The fire significantly affected rescue, with only two out of the eight complex lifeboats able to be launched, and only one out of ten life rafts. Similarly, only half of the NCY's rescue craft could be launched. • The monsoon exacerbated the bad rescue condition as no helicopters

	<p>could take off from the shore</p> <ul style="list-style-type: none"> • Six divers in saturation chamber on the vessel were rescued 36 hours later. The Samudra Suraksha sunk four days afterwards.
<p>Key Lessons Learnt</p>	<p><i>Riser Issues:</i></p> <ul style="list-style-type: none"> • The positioning of risers in relation to the platform structure and loading zones • The vulnerability to damage (even risers inside the jacket structure may be at risk) • The appropriateness of fendering/riser guards in relation to the design of attending vessels • The inventory which is likely to be discharged if the riser fails below its ESDV • Risk management process <p><i>Vessel Issues:</i></p> <ul style="list-style-type: none"> • Role of OIM/Master regarding Safety Zone and vessels approaching the installation • Collision Risk Management Principles • Installation vulnerability • Vessel suitability • Crew competence • Marine knowledge of Installation • Communication • Hyperbaric evacuation issues <p><i>Incident reinforces the need for:</i></p> <ul style="list-style-type: none"> • Thorough risk assessment of the potential causes and consequences of riser damage • Development, implementation and maintenance of associated risk management measures • Adoption of collision avoidance and protection measures which at least meet current good practice as described in Oil&Gas UK • Management arrangements to ensure that the risk management measures are effective and observed in practice.
<p>Reports & Links</p>	<p>HSE presentation</p>