

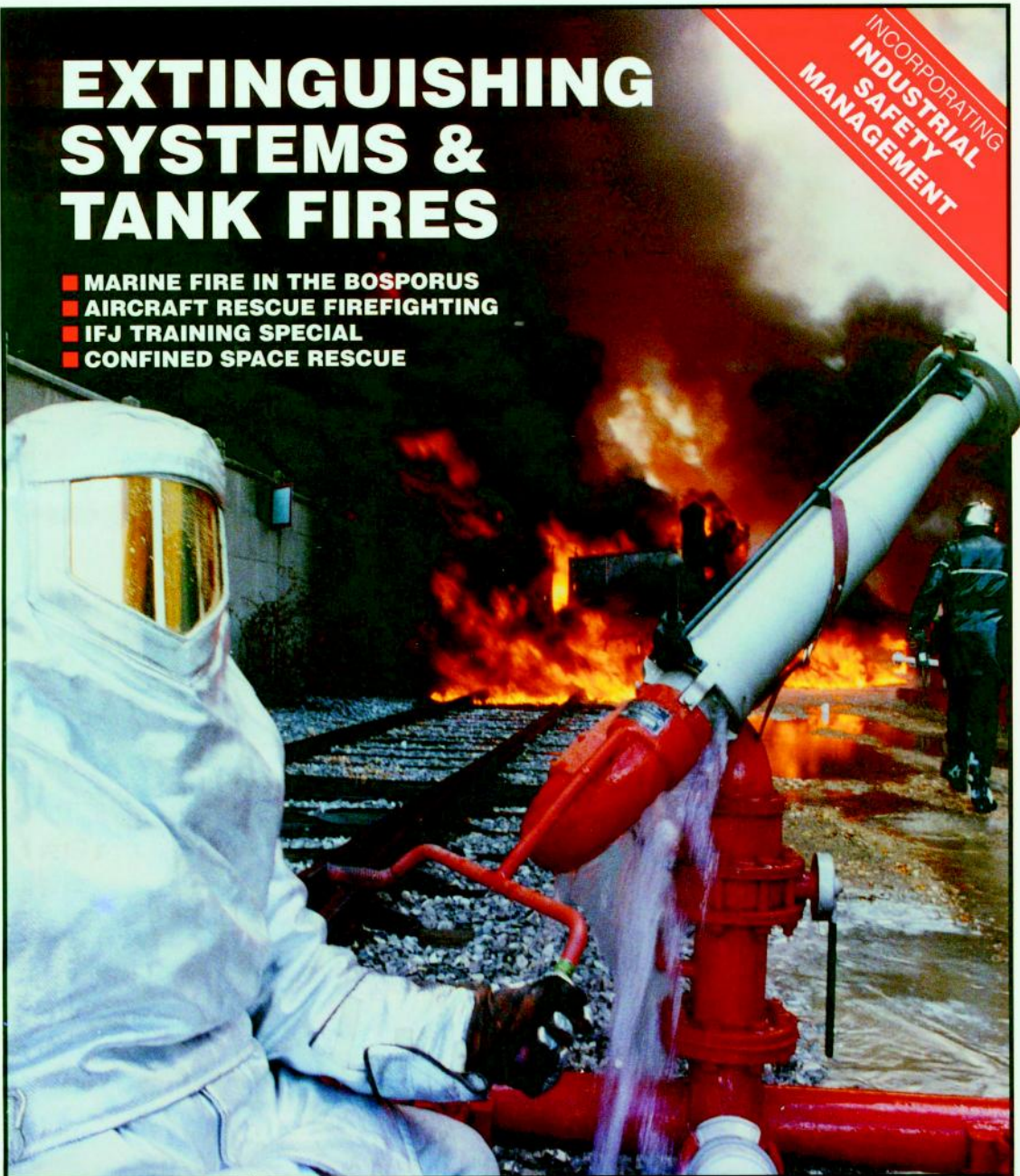
INDUSTRIAL[®] FIRE JOURNAL

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Fires onboard two vessels in an international shipping lane could have spelled environmental disaster for Turkey but for the valiant efforts of salvage & rescue teams and the use of a remarkable new fire extinguishing agent, reports Robert E. Tinsley, Jr.

TRAGEDY IN THE BOSPORUS - A MARINE-FIRE DISASTER

On Sunday, March 13th, 1994, at approximately 22:30 hours, a major shipping disaster occurred in the Bosphorus Strait, an area 17 miles across, joining the Black Sea to the Sea of Marmara. Not far from Istanbul, Turkey, the Greek-Cypriot tanker, NASSIA, was struck by the bulk carrier, SHIPBROKER.

The NASSIA was carrying 98,600 tons of Russian light crude from the Ukraine to Italy when she was struck by the SHIPBROKER at the northern entrance to the Bosphorus, sustaining crippling damage to the NASSIA's Number One port cargo tank. The escaping crude ignited, and fire rapidly spread to both vessels. Tragically, the fire killed 31 of the 56 crewmen onboard the two vessels; although 20 bodies were later recovered, the remains of 11 of the dead seamen were never found. Many of the survivors suffered severe burns and were in a state of shock when picked up by rescuers.

DISASTER RESPONSE: Hoping to avoid further problems, once the alarm was raised the Turkish authorities were quick to respond and within an hour of the initial collision the Bosphorus was closed to all shipping. It took several hours for

the fire onboard the SHIPBROKER to be extinguished by local firefighting tugs. But the NASSIA fire proved another story altogether.

Observers described the incident as 'the worst shipping accident in the Bosphorus in 15 years' and concern mounted that environmental disaster was imminent. While flames from the NASSIA illuminated the night sky for miles around, local tugs secured the vessel and towed her into the Black Sea where salvage efforts could be undertaken more safely. Initial reports suggested that approximately 20% of the NASSIA's payload had already flowed into the sea by this time.

THE SALVAGE BEGINS: In an effort to avoid further disaster, negotiations were immediately undertaken to secure the services of the salvage company best able to deal with the growing problem. On the morning of the 14th March, SMIT TAK, the internationally-known and respected salvage company based in

Rotterdam, was awarded a Lloyd's Open Form salvage contract.

SMIT TAK responded immediately by deploying an 18-man salvage team which was on-site within 24-hours of the collision occurring. Accompanying the SMIT TAK salvage personnel was a three-man operations team from RISC Fire & Safety Services, a Rotterdam-based emergency response company. Leon Meels, Chief of the RISC team later commented: "The fire was even larger than we expected. In fact, it was the largest tanker fire that I have seen in my career." With Turkish officials assisting with customs' clearance, the team moved in to fully evaluate the conditions onboard the NASSIA. In an effort to keep flames from igniting the tanks which were still intact, tugs repositioned the NASSIA so that her stern was into the prevailing wind. An experienced (and courageous) salvage team then boarded the vessel at the stern, as far away as possible from the inferno raging in the forward cargo tanks.

March 13th, 1994: the NASSIA with 98,500 tons of crude oil onboard burns along its length following a collision with another vessel off Turkey. In an effort to keep flames from igniting the tanks which were still intact, tugs repositioned the NASSIA so that her stern was into the prevailing wind. Personnel from SMIT TAK and RISC Fire & Safety Services boarded the vessel at the stern and inched their way forward under the protection of a water curtain provided by the tugs alongside. As the team advanced, they shut off every valve that would move to limit the flow of crude to the flames. [Pic:AP]



IFJ TRAGEDY IN THE BOSPORUS - A MARINE-FIRE DISASTER

Under very hazardous conditions, the men inched their way forward under the protection of a water curtain provided by the tugs alongside. As the team advanced, they would shut off every valve that would move to ensure that there would be no further flow of crude to the fire.

THE EXTINGUISHMENT CHALLENGE: Some tanker fires take weeks to finally extinguish. In most instances, it takes days to simply cool a vessel before a foam attack can be undertaken. Despite the size of the NASSIA blaze, the SMIT TAK and RISC personnel were confident that the fire could be extinguished significantly faster than normal.

After manoeuvring the tugs into proper position, the fire aggressively attacked with a revolutionary new fire extinguishing product called PYROCOOL™ FEF. The results were astonishing, even to the veteran firefighters.

"I have never seen such amazing knockdown," said Meels. "You really would have to see it first-hand to believe it." Geert Koffeman, Manager of SMIT TAK, further reported that that in addition to the rapid extinguishment of the fire, the product "provided an immediate and dramatic reduction in the fire site temperature. Without PYROCOOL™ the NASSIA could well have continued to burn for several more days, with an ever-growing risk of pollution through structural failure," said Koffeman.

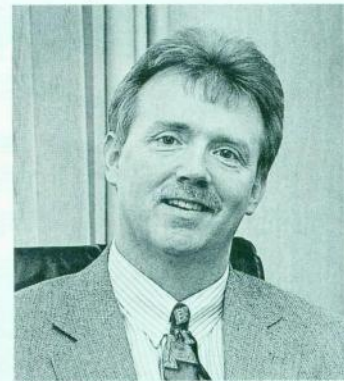
The fire on the NASSIA was aggressively attacked with a new fire extinguishing product called PYROCOOL™ FEF. Geert Koffeman, Manager of SMIT TAK, commented: "Without PYROCOOL™ the NASSIA could well have continued to burn for several more days, with an ever-growing risk of pollution through structural failure." [© PIM KORVER FILM + VIDEO]



The fire is extinguished on the NASSIA with the majority of the crude oil tanks left intact. Some tanker fires can take weeks to finally extinguish. In most instances, it takes days to simply cool a vessel before a foam attack can be undertaken. This operation took only three days before completion. [© PIM KORVER FILM + VIDEO]

THE INCIDENT CONCLUDES: Within three days of their arrival on the scene, the SMIT TAK and RISC team had extinguished the NASSIA fire and cleared the way for the Bosphorus to be reopened to shipping traffic. At one point as many as 350 vessels had been waiting to pass through the Strait. Frederick Vlot, Director of RISC Fire and Safety Services, commented: "Our emergency response team has always been proud of its ability to respond to disasters of this type, however, by utilising PYROCOOL™ we will now be even more efficient."

SMIT TAK's manager, Geert Koffeman, agreed: "PYROCOOL's capabilities will change salvage tactics in larger tanker fires. In short, our salvage crews can now carry out their tasks earlier, more efficiently and in greater safety." While the incident in the Bosphorus had tragic, human consequences, the destruction could have been much worse. Without the valiant efforts of the salvage crew and the use of a remarkable new fire extinguishing agent, the damage to the vessel and the environment could have been profound. Thankfully, such was not the case. □



ABOUT THE AUTHOR

Robert E. Tinsley, Jr. (44) is the general manager of Pyrocool Safety Products, a Dutch company with offices in Rotterdam and Curacao, Netherland Antilles. He is a US attorney who established Pyrocool Safety Products together with European partners. He currently resides in Rotterdam and coordinates the company's global operations.