

# THE ADNOC 1999 OIL SPILL EXERCISE

## “EXERCISE GHAZAL”

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At 7:50AM on the morning of October 4<sup>th</sup>, 1999, the VLCC *British Resource*, a BP Amoco tanker outbound to BP Amoco in Australia, nearly collided with a Chinese fishing trawler, the *Cheng Pu III*. The *British Resource* had just completed loading more than 260,000 tons of Umm Shaif crude oil from a loading point near ADMA-OPCO's Das Island facility. The evasive actions taken by the *British Resource* to avoid the trawler resulted in her grounding and spilling more than 4,000 tons of crude oil into the Arabian Gulf.

This major spill threatened numerous bird nesting and breeding areas, turtle hatcheries, dugong feeding sites and coral reefs located in the Gulf. It was discovered that the estimated trajectory of the spilled oil would see this oil grounding on the shoreline of the capital of the United Arab Emirates, Abu Dhabi, posing a severe environmental and commercial disaster.

The spill threatened the desalinization plants that provide water to a local population of more than half a million people. It had the potential to strike the tourist beaches and other recreational facilities located along the UAE coastline at the many five-star hotels. It presented the apparition of a major catastrophe to fish hatcheries already decimated by the Pontoon 300 fuel oil spill in January 1998 as well as the mangrove forests which provide shelter to small fish and other sea creatures providing a livelihood to dozens of fishermen and their families. Several crewmen on board the vessels were seriously injured.

It was the unthinkable disaster that could never happen...and fortunately did not. This was the scenario of the largest oil spill exercise ever conducted in the Arabian Gulf – the Abu Dhabi National Oil Company's *EXERCISE GHAZAL*.

*EXERCISE GHAZAL* brought together from within Abu Dhabi the combined resources of the ADNOC Group of Companies – its own Crisis Management Team, ADMA-OPCO, NMS, PPA, ADPPOC, ADESCO and ADNOC-FOD. Commercial organizations such as Abu Dhabi Aviation, Lamnalco, the Hilton Hotel and Gulf Agency played key roles. The Abu Dhabi International Marine Sports Club provided the equipment deployment site. International responders from Oil Spill Response Ltd. in the UK and the Petroleum Association of Japan flew equipment and manpower in from thousands of miles away to assist in the response to this simulated major oil spill.

One of ADNOC's most important shareholder companies, BP Amoco, activated its local emergency center in Abu Dhabi and its Shipping Emergency Center in Hemel Hempstead, UK, in response to the hazardous situation presented by one of its vessels and the oil spilling from it into the Gulf. BP Amoco also had to quickly handle the evacuation and medical treatment of several seriously injured crewmen on board the *British Resource*.

And most importantly, *EXERCISE GHAZAL* relied on the support and cooperation of key government agencies such as the Federal Environmental Agency, the Environmental Resource and Wildlife Development Agency and the Frontier and Coast Guard. The Police Air Wing, Civil Defense, Customs, Mina Zayed Port, Ministry of Health, the General Civil Aviation Authority and Air Traffic Control as well as other ministries and agencies also played major roles in the response to the simulated oil spill.

Planning for *EXERCISE GHAZAL* began more than one year ago, reflecting the importance that the ADNOC HSE Management System places on its companies and people being prepared to respond to emergencies and incidents that affect ADNOC's business and the communities that may be nearby. The planning for this oil spill exercise involved many of the participants in the exercise, and included a strong media response, just as would be expected in a real incident.

Once the Petroleum Ports Office on Das Island received the first report of the oil spill, calls were immediately made to ADMA-OPCO, BP Amoco and ADNOC in accordance with established procedures. ADMA-OPCO and ADNOC senior management acted quickly to activate the crisis and emergency response centers to respond to the oil spill. BP Amoco Shipping called in regional and international salvage companies to stabilize the *British Resource* and to stop the flow of oil.

The Emergency Response Center in ADMA-OPCO quickly assumed the lead role in managing all aspects of the spill response efforts. Under the leadership of the Incident Commander, Emergency Support Team members moved easily into their assigned roles and responsibilities, relying on their training and experience in operations, logistics, planning, finance and public affairs to determine the facts of the incident, formulate response strategies and keep management informed.

The Operations Manager, for example, has the responsibility to manage all aspects of the physical response to the spill. He and his staff ensure that oil spill booms are correctly placed to protect sensitive areas and that dispersant spraying vessels from National Marine Services are dispatched to break up the oil slick heading towards Abu Dhabi. His staff also coordinates the aviation missions to locate the slick, report its location back to the Emergency Center, and perform aerial dispersant sorties to assist in breaking up the oil slick before it damages the coastline.

The Logistics Manager has the key role of ensuring that Operations has everything it needs to do its job. All areas of the spill response are covered by Logistics; oil spill booms, vessels, trucks, fuel to operate the equipment, food, water and accommodations for those workers from outside the area – the list goes on and on. As an oil spill response can go on for many weeks, even months and years, it is readily apparent that Logistics has an important job.

All of the activities overseen by Operations and supported by Logistics are under the direct guidance of the Planning Manager. He and his staff determine the trajectory of the oil spill, when it will affect sensitive locations, what response actions to take at these locations, and how to respond. He also has the critical job of ensuring that the health and safety of the workers is protected, and when the temperatures and humidity of the Gulf Region are considered, this is an important part of preventing injuries. All of the environmental aspects of an oil spill are under the supervision of the Planning Manager and his team.

The Finance and Legal Manager work closely together to minimize and track all of the costs of the oil spill response; not only the out of pocket expenses for the manpower and equipment, but the possible claims for damages from those people who may be affected by the spill. This could include fishermen whose nets have been damaged or fishing grounds destroyed; hotels whose beaches are oiled and have had guests cancel their reservations; boat owners whose boats are now covered in oil; and other people who may be affected by an incident such as this.

The Public Relations Manager has one of the most important jobs of all; his responsibility is to keep the community informed through the media of the facts of the oil spill and the response efforts of industry and the government. The Public Relations Manager issues many press statements, employee advisories, takes numerous telephone and fax inquiries and conducts press conferences. He has to ensure that the facts of the incident are published quickly and accurately, to avoid erroneous statements or speculation on the cause and effects of the oil spill.

All these Response Team Members worked together with the government to respond to the oil spill from the *British Resource*. Once the location of the spill was determined, a computerized tracking program was used to develop the trajectory of the oil and where and when it would hit the coastline.

Oil spill response equipment from the PPA Oil Spill Response Center at Ruwais, the PAJ equipment base at Mussafah, and the OSRL stockpile in Southampton, UK were all activated and ordered to deploy to Abu Dhabi. The OSRL Hercules aircraft was flown from the UK along with an aerial dispersant spraying system, the ADDSPACK, to apply large quantities of dispersant to the oil slick. Helicopters from Abu Dhabi Aviation at Bateen Airport were equipped with underslung dispersant spray buckets to assist in fighting the spill.

Once the oil spill response equipment arrived at the deployment site in Abu Dhabi, crews immediately set to work to prepare for the arrival of the oil slick. Under a hot sun, the multi-national force of oil spill response experts worked together as a team to unload containers of spill equipment and deploy the oil spill boom, anchors, skimmers and other gear used to protect the identified environmentally and commercially sensitive sites. Using vessels and cranes to help in the difficult handwork of deploying the equipment, the booms were all set and ready within a few hours.

At sea three NMS vessels were hard at work preparing to recover the oil from the sea, skimming the oil into portable containers for transfer to ADNOC-FOD trucks and then to a disposal site selected by Abu Dhabi Municipality. Aircraft from Abu Dhabi Aviation and OSRL flew many sorties of simulated dispersant to demonstrate their readiness to respond to a real emergency.

The General Civil Aviation Authority and Air Traffic Control handled the coordination of aircraft flights. Ambulances from the Ministry of Health stood by to treat any injured personnel from the deployment and fire trucks from Civil Defense were available if needed. The Ministry of Interior had been involved in the planning for the entire exercise from the security and crowd control viewpoint, and the police were always ready to assist if required.

To ensure that the exercise was conducted as realistically as possible, more than 15 role players were selected to provide inputs in the form of faxes, telephone calls, and questions raised during two full-scale press conferences. These role players acted as fishermen who could not employ their nets; hotels who may have filed claims for damages to their beaches; and high ranking officials of the Supreme Petroleum Council and the government who wanted to be kept informed. Environmental organizations such as Greenpeace placed telephone calls and faxed copies of "press releases" they would make to the media.

Real members of the UAE press acted as role playing reporters who were trying to develop a story for tomorrow's newspaper and radio broadcasts. Other role players served as relatives of two injured crewmen on board the BP Amoco tanker and the fishing boat expressing their concern over the fate of their loved ones. And since in a real oil spill incident there would be many people offering help, two role players acted as volunteers to offer their services to help clean any oiled birds and wildlife or contaminated beaches.

The importance of the response role of local and Federal government in *EXERCISE GHAZAL* cannot be overstated. *EXERCISE GHAZAL* was the first major oil spill exercise in the United Arab Emirates where all key government agencies were involved in the planning and execution of the scenario.

The Federal Environmental Agency, Coast Guard and Environmental Resource and Wildlife Development Agency served as the lead agencies in the exercise response. ERWDA's role, for example, is to assist the ADMA-OPCO Planning Manager in determining the most sensitive environmental sites that may be affected by the oil spill, prioritizing the response, and selecting the best tactics to protect that site. This could involve use of dispersant, booming of especially sensitive sites, and even removal of some of the wildlife, which could be contaminated by oil.

The FEA is directed by Federal legislation to assume full responsibility for oil spill response in the UAE. The FEA oversees the activities of the responding party, in this case ADMA-OPCO, to be sure that the citizens and the environment of Abu Dhabi are protected. The FEA can use its Federal power to control all aspects of the oil spill response and take appropriate action if required.

The Coast Guard, by providing security at sea, ensures that the area involved in the oil spill response is protected from curiosity seekers and other vessels that may interfere with the activities of the oil spill. The Coast Guard also helps in reconnaissance and tracking of the spill and in the rescue of any vessels at sea that may be affected in the original collision and subsequent events.

Other government agencies provide such essential services as ambulances and medical personnel, communications, on-shore and offshore security, clearance of incoming supplies and equipment, port operations, aviation operations, and many other activities.

**The message is TEAMWORK between industry and government to fight the common enemy, the oil spill.**

The main objectives of *EXERCISE GHAZAL* were:

- Test ADNOC and ADMA-OPCO spill response plans
- Mount an effective media response
- Coordinate oil spill response with BP Amoco and government agencies
- Evaluate the effectiveness of oil spill response equipment deployment.

How did ADNOC and ADMA-OPCO perform during *EXERCISE GHAZAL* to meet these objectives? The answer is that all of the objectives set for the exercise were achieved. In addition, ADNOC learned five major lessons:

- Joint industry and government partnership in response to an incident works
- The use of the Incident Command System (ICS) focuses the response effort
- Major oil spill response equipment can be activated and deployed to Abu Dhabi in 6 - 24 hours
- Joint drills and exercises between government and industry increase the benefits for all involved parties
- Communications is the greatest challenge.

What are the next steps for ADNOC and the UAE government to improve the readiness for an oil spill incident in Abu Dhabi waters? ADNOC will work with the government to:

- Develop and implement a National Contingency Plan for Abu Dhabi and the UAE
- Use the Incident Command System as the primary response structure of the National Contingency Plan
- Ensure that government agencies participate in all future exercises
- Improve our communications during an emergency
- Develop, train and exercise an ADNOC Group Company-wide oil spill response team.

*EXERCISE GHAZAL* accomplished many objectives in a short period of time. The hard work and efforts of all of the planners and participants for this major oil spill exercise resulted in identification of things done well, and the issues that need to be addressed. ADNOC and the UAE government demonstrated that by working together as a team, the effects of a major oil spill could be minimized.

**While ADNOC works constantly to ensure that an incident such as this never happens, its people train and prepare for the unthinkable.**