



# Quench Incident Action

## 35,000L TANKER EXPLOSION- Wyong



On Friday, 8<sup>th</sup> December 2000 Wyong Rural Fire Service received a call from NSWFB Newcastle ComCen advising of a truck alight on the F3 at the Ourimbah exit. The Rural Fire Service were the first agency on scene and were faced with a 35,000 litre fuel tanker rolled over which, after the ensuing explosion, had become fully involved in fire. Amongst the inferno was the barely recognisable outline of a car.

### Initial Response

At 09:32hrs on Friday 8<sup>th</sup> December 2000, Wyong Rural Fire Service District received a call from NSWFB Newcastle ComCen – “Truck alight, F3 Freeway, Ourimbah exit”.

Immediately pagers for Chittaway, Berkeley and Ourimbah Rural Fire Brigades were activated and radio contact made with FCO2, FCO3 as well as Transport 5 which was on the road with other non-related tasks. The staff at the Fire Control Centre could see a large plume of dark smoke in the direction of the Ourimbah Exit. The Control Centre is 10 Km from the incident. FCO 1 was at the Control Centre and instructed Transport 5 to load up with 40 pails of AFFF and respond to the scene. As more calls were received via 000, the response from Wyong Fire Control was upgraded.

At 09:36 Wyong Fire Control activated pagers for Arizona and Charmhaven Rural Fire Brigades and requested assistance from Gosford RFD in the form of 2 Cat1

tankers. Gosford activated Mt Penang and Kariong Rural Fire Brigades.

### Description of Fireground

The incident was located on the roundabout just west of the F3 Freeway. This roundabout is the first northbound exit to Gosford off the F3, at Ourimbah. The accident site was well forested with shrubs and trees. A popular public rest area and toilet block is situated off the western exit of the roundabout. The eastern exit of the roundabout sends traffic to Ourimbah under the freeway.

The tanker rolled over while on route to a Shell service station just 400m away on the road to Ourimbah. The tanker ended up on top of a car on the side of the road between the western exit of the roundabout and the north exit of the roundabout, which puts traffic back onto the F3 northbound. The truck also landed on the power box used to switch the lighting for the roundabout and the rest area.

Two mini buses of elderly travelers and a number of other tourists were in the rest area when the incident happened. Police later set up a witness area and took statements from some of these people. The exit is a fairly busy intersection and, being Friday, the RTA were concerned about the afternoon peak traffic from Sydney to the Central Coast.

### Arrival and Size Up

Chittaway 1, at 09:44 was the first fire appliance on scene. They were closely followed by FCO2 and NSWFB Pumper 505. The Captain of Chittaway 1 gave the first Sitrep.

**“Confirm very large fuel fire, loud explosions.”**

FCO2 later added to the initial sitrep with the following details.

**“Incident located off the Freeway on the Western side Ourimbah Exit ramp. Chittaway 1 using foam on fire. Confirm 1 car and 35000L tanker fully involved. NSWFB also on scene.”**

## Initial Actions

The crew of Chittaway 1, after seeing just a tow bar of the car involved, immediately set up in an attempt to smother flames around the car with AFFF foam, using a single 38mm line with a foam-making branch. The temperature at 20 metres away from the fire was extremely hot. Crew members from Chittaway were appropriately dressed in full defensive structural fire fighting protective gear.

At this stage no placards were visible, preventing the crew from determining the type of load. NSWFB Pumper 505(Wyong) set up a second line of 38mm with a foam branch and began work on the truck drivers cabin. NSWFB Pumper 509(Wyoming) arrived and set up the third attack line of 38mm with a foam branch concentrating on the tanker. All three fire trucks with deployed lines were emptied very quickly. The nearest reticulated water was approximately 400m away, next to the Shell service station on the other side of the freeway. With the knowledge that other trucks were on the way, a message was sent to both services that a water relay was required.

Berkeley 1 arrived at 09:52, with part of the crew relieving the Chittaway crew while water was transferred from Berkeley 1 to Chittaway 1. Chittaway 11 arrived at 09:54 and was immediately tasked to refill Pumper 505. NSWFB Composite 509 refilled Pumper 509.

A small NSWFB HAZMAT vehicle from the Central Coast arrived on scene at 09:55. HAZMAT commenced with environmental protection and fuel containment

and asked for assistance from HAZMAT Units from Newcastle. A large amount of fuel had run down the small embankment towards the rest area and was impacting on the nearby creek. This running

due to the heat, causing small fires to flare up. The three hose teams remained in position for a further 2 hours as HAZMAT crews worked on strategies to decant the remaining fuel.



*Aerial View of the crash scene after the fire had been extinguished*

fuel was also alight and had scorched a lot of the plant life as well as the public toilet block for the rest area.

## Additional Support

As more trucks arrived they were deployed to assist in filling operations and crew relief on the three attack lines. This process continued in a relay fashion involving both RFS and NSWFB trucks. In all 13 trucks and their crews took over 2 hours to control the fuel fire using over 40 pails (800litres) of AFFF.

Even though the fire was controlled, the foam blanket disintegrated in small pockets

## Fuel Temperature

Measurements of the fuel temperature with heat detecting equipment were taken. The ambient temperature of the day was 45 degrees and the fuel was at a very high 97 degrees. Decanting is normally done at a considered safe 30 degrees.

There were five compartments of fuel. Two compartments at the rear and two at the front contained petrol. These compartments had exploded and were only half intact and still half full of fuel. The centre compartment contained diesel. Although the diesel was exposed and had been burning, the compartment was basically intact.

An attempt was made to cool the fuel down using fog sprays from both RFS and NSWFB appliances. This continued for some time, however, the temperature was still too high for decanting. In an attempt to cool the diesel, ice from the local service station was brought to the scene. A captain from one of the RFS brigades suited up in CABA and manually lifted the ice up to the diesel tank and dropped it in, while safety crews with fog continued to hose the immediate area. This did assist, but the temperatures were still well above the 30 degrees, estimated at around 65 degrees.

It was now 15:00 and the situation with the fuel had not improved sufficiently for standard decanting. The options were assessed and it was decided in an all-agency commanders meeting to attempt to decant the fuel.

## Decanting

Shell had been contacted earlier in the day and set up a pump especially designed for this type of decanting. As the fuel was brought from the crashed tanker

to a new tanker, RFS and NSWFB crews cooled the pipes carrying the fuel with a continuous fog stream on both the input and output lines of the decanting pump. To cool the fuel even more the receiving tanker compartments were each filled with 1000 litres of water. The hot fuel was passed into the bottom of each compartment thus passing through the water and being cooled.

The decanting process alone took some four hours and utilised a large number of firefighters to ensure the process was safe and efficient.

While the decanting was taking place, crews still maintained a watchful eye on the fireground, as there was still real potential for reignitions. At approximately 16:00 (halfway through the decanting process) the RTA opened one lane of traffic going the wrong way on the roundabout to let north bound traffic off the F3 onto the Ourimbah Road.

## Releasing of Crews and Final Mop Up

With the decanting finished, crews were released over the next hour. Some crews had now been on the fire ground for nearly 8

hours. Ourimbah 1 and 9 were called to the scene at approximately 17:00 (they had not responded to the original call) and with assistance from NSWFB 228 (Berkeley Vale Pumper – also not responded to first call), provided fire protection while the VRA extracted the two deceased. RTA crews then removed the wreckage. A general mopup by these crews was undertaken with the area rendered safe. All crews had left the scene at around 20:00, some 11 hours after the first call.

## Summary and Debrief

The debrief was conducted one week after the event. All agencies that were present struggled to raise any constructive criticism issues. So much so that the Shell representative praised both fire services on their professionalism, cooperation and attitude towards this incident. He commented that in all his years of attending these types of incidents, he had never witnessed an event run so smoothly, and was a credit to all involved. His comments would best summarise the entire incident.

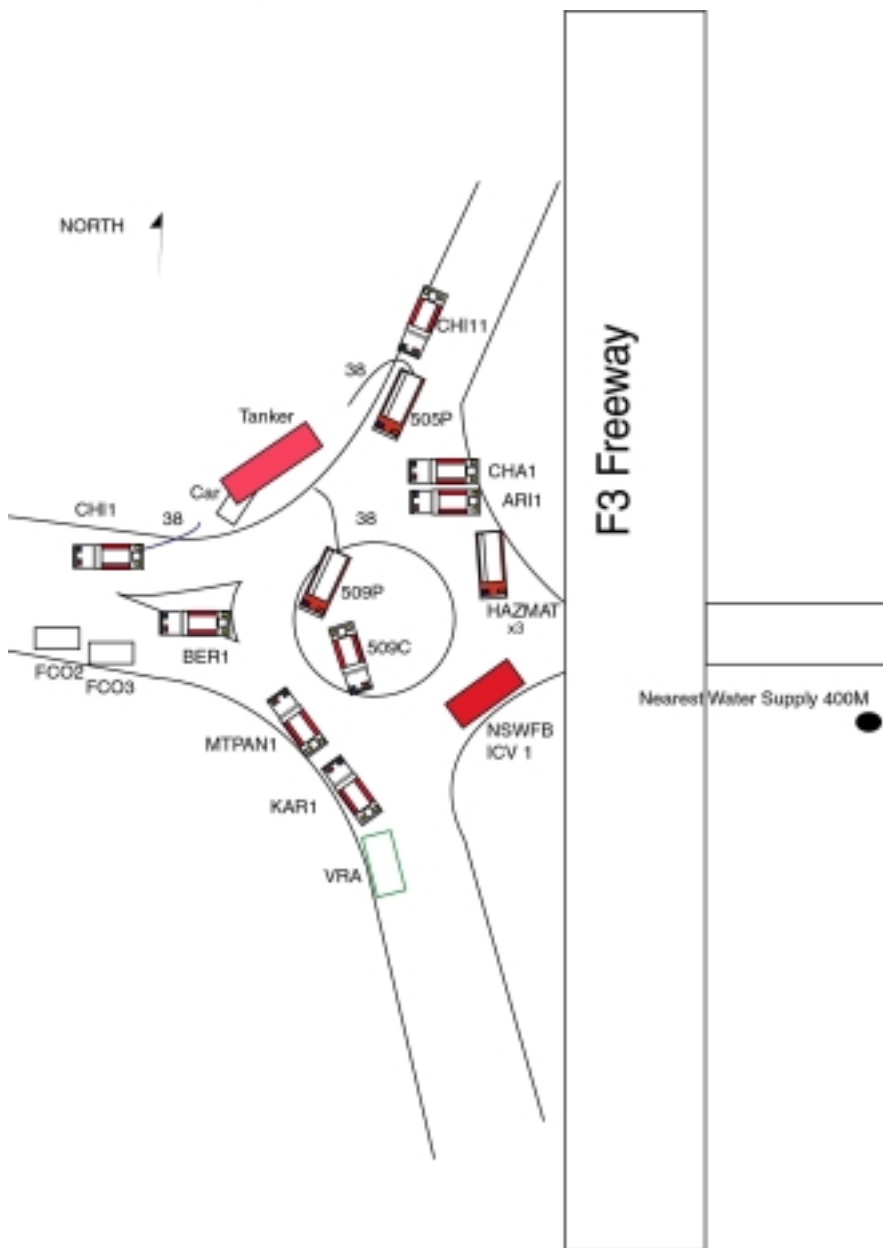
The success of the operation can be attributed to the firefighters being well trained and appropriately dressed in correct PPE ever mindful of many safety issues that constantly surrounded them. None of the RFS crews had ever witnessed a “hot “ decanting of fuel and the experience that they have gained they will carry forever and pass onto to new recruits.



*RFS and NSWFB crews working together on maintaining the foam blanket*



# Quench



Bullet training points for incidents of this nature.

- Appropriate PPE is essential.
- VF is important training for these types of incidents and must be practised on a regular basis.
- Pumps & pumping and awareness of fault finding is critical to ensure there is no disruption to water supply.
- Crew leader training was of major benefit to local crews enabling fast, concise size-up of incident at initial arrival.
- Cross training between brigades ensured good working relationships and ability to back up initial crews with minimal direction.
- Crews need to be aware of convergence factors. All incoming brigades held position at an assembly area before tasking, ensuring clear work environment
- Safety of firefighters and members of the public is paramount. Training lessens the risk of injury at those types of high risk incidents
- The foresight of the FCO to implement additional foam, resources, support crews and logistical back up from onset was very beneficial. (eg. environmental services from Wyong Shire Council and Environmental Protection Authority)

Article written and compiled by Janelle Clark, Ryan Coffey and Cameron Wade. Special thanks to Inspector Steve Marsh, FCO2 Wyong Rural Fire District.

All photos courtesy of Central Coast Express Advocate - Ron Hutchings and Bill Rosier.

*Quench "Incident Action" is a new addition to the Quench publications - from time to time we will feature stories regarding the response to major incidents. If you would like to contribute or recommend covering a particular incident, please contact Cameron Wade in the Media Unit on (02) 9684 4411*