

# Terrorist Attack on Auckland's water supply

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On Sunday 25th of January 2008 Auckland City Council's call centre received a call. The caller stated he belonged to the United Freedom Fighters group and they had just poured Potassium Cyanide into a reservoir at the corner of Karangahape and Ponsonby Roads in the suburb of Ponsonby and then the caller hung up. The call centre immediately responded by following standard operating procedures that entailed firstly contacting the police and fire service followed by Watercare, Metrowater, Auckland Regional Public Health Service (ARPHS) and the Auckland Regional Council as well as the On-call emergency Environmental Health Officer which unfortunately was me. On arrival at the site I met with the incident controller from the NZ Fire Service together with representatives from NZ Police and Watercare and was briefed on the situation.

## Initial briefing from emergency services

By the time of my arrival the Fire service had ascertained that there was no immediate threat to personnel entering the site and we could enter to investigate the allegation. Police and Fire Service were then required to depart so that they could attend to a second incident (bomb threat) in the city that also appeared to be originating from the same caller.

## Information gathering

After the initial panic was over it was time to start doing my job and investigating the authenticity of the allegation. A discussion was held with the representatives from Watercare and the following questions posed:

- If they had put it in, when did they do it and how much time did we have? The short answer was nobody knew as no alarms had been triggered and there was no way of knowing how much they may have added without testing the water.
- If Potassium Cyanide (KCN) had been added to the reservoir how much would have been needed to affect people? We obtained the information by accessing a Material Safety Data Sheet on Potassium Cyanide and found out that it was very soluble (71.6g/100ml). A quick calculation of the volume of water in the reservoir and the WHO maximum guideline revealed that they would have had to add more than 40kg of Potassium Cyanide for a problem to be present. However, this did not take into account the flow dynamics of the reservoir and pipework and whether a more concentrated slug of KCN could have entered the distribution system.
- What was the throughput of the water in the reservoir? The turnover of the water in the reservoir was approximately 50% of the total volume every 6 hours.
- Did the water appear contaminated? Smell tests were done on the water and appeared normal. For obvious reasons taste tests were not carried out.
- What symptoms would people show if they had consumed a high dose of KCN? Information from the Material Information Data Sheet indicated that persons could

experience sore throat, burning sensation, nausea, vomiting, diarrhoea, shortness of breathe, weakness followed by convulsions and unconsciousness.

- Could the reservoir be shut down and isolated and water diverted from another source? The short answer was not easily. Turning off the flow from the reservoir would almost certainly cause the ring main supplying the city to rupture resulting in the entire city being without water for an extended period of time until repairs could be carried out.
- How quickly could testing be carried out to determine whether the reservoir had been contaminated? The Watercare Laboratory needed to make up the required reagents to carry out the test and the expected timeframe was two to four hours.
- Were there any signs of tampering on the reservoir? A walk around of the reservoir showed all hatches were closed and had a seal on them apart from one which had no seal and when opened did not trigger an alarm at the Watercare monitoring station. The reason for the failure of the alarm appeared to be due to corrosion on the hatch lid. This was very aggravating as we could not conclusively prove whether the security of the reservoir had been breached or not.
- Were we sure we had the right reservoir? This query was answered fairly quickly by sending Watercare personnel to the other reservoir in Mt Eden (Khyber Pass Rd) who reported back that all hatches were secure and no tampering had occurred.
- Were there any signs of contaminants? A quick survey of the site showed no evidence of spilled powder, forced entry, empty containers or packaging that would indicate contaminants had been taken up onto the roof.
- Next question was whether there had been any reports of sickness? I luckily spotted an ambulance filling up at the service station next door and went and asked if they had any reports of sickness that could be linked to KCN poisoning. The ambulance driver checked with their call centre and no cases exhibiting the symptoms had been received.
- Should the Civil Defence emergency management team be called in? As there was no indication of actual contamination occurring it was decided not to activate this team. However they were advised of the situation and were ready to activate if necessary.
- Should the media be advised? A TV1 reporter did turn up but could not gain access to where we were. A decision was made not to speak to them until confirmation of contamination was found thus avoiding panic or over sensationalising and/or encouraging copycat incidents.

### Decision Time

The following decisions were made:

A joint decision was made with the CEO of Watercare to slowly turn off the water whilst watching the pressure in the system and hoping that the results from laboratory would be received indicating that no contamination had occurred before the main burst.

### Other agency involvement

ARC - Turned up but were not needed and left

ARPHS - Were not present but were kept updated during the incident

### The Outcome

- Four hours after the initial call results were received back from the Watercare Laboratory indicating that no KCN was present in the water.
- The water was turned back on and pressure returned to normal operating levels.
- No damage to the reservoir or ring main had occurred with a huge sigh of relief from everyone involved.
- Agencies stood down
- Security was employed to stay on the site for the remainder of the weekend
- Watercare are now reviewing their security and maintenance procedures.
- Environmental Health are in the process of writing up emergency procedures for dealing with various incidents.