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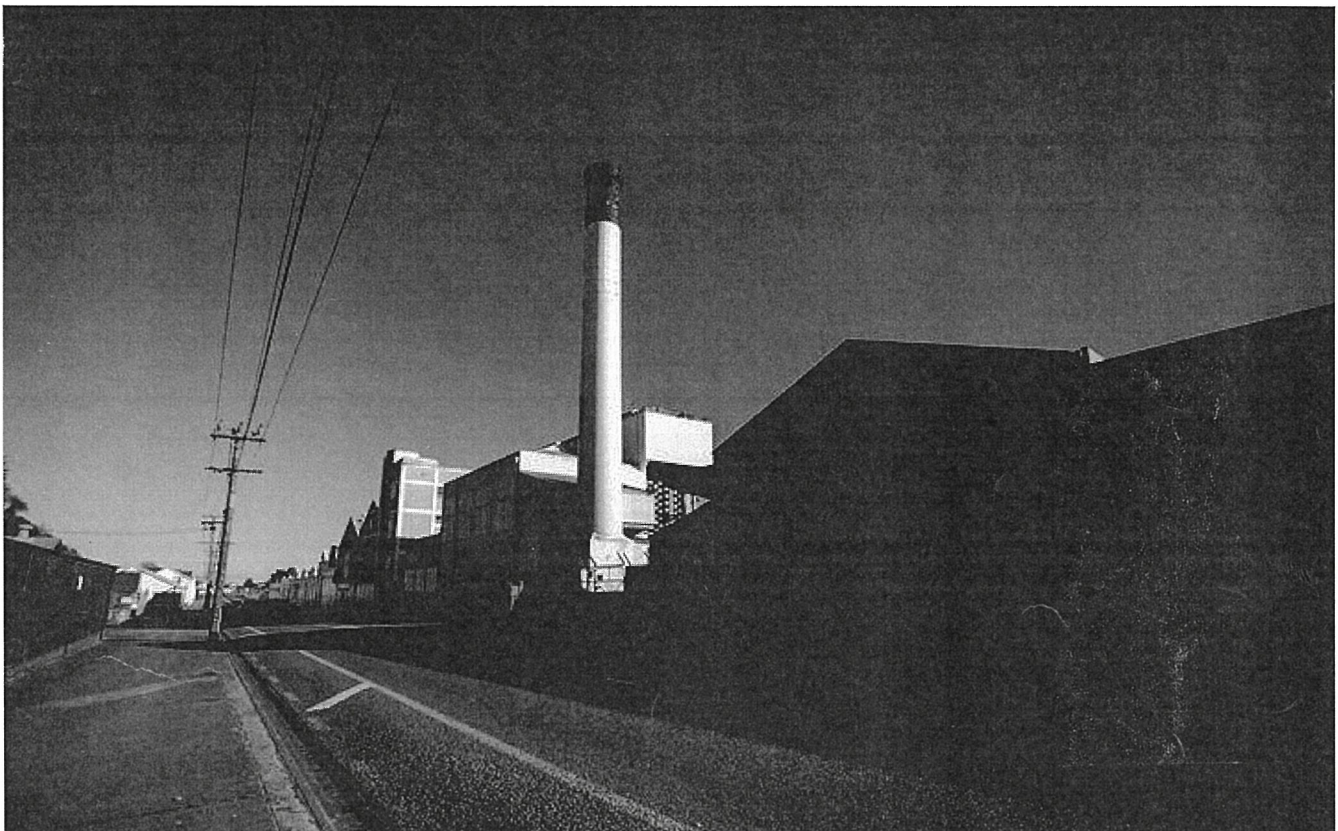
(RNZ, 2020k)

NEW ZEALAND (/NEWS/NATIONAL) / SOUTH

Toxic ammonia gas likely to be released into floodwaters - authorities

5:47 pm on 5 February 2020

Toxic ammonia gas is likely to be released from about 10,000 tonnes of premix at a paper mill in the township of Mataura, authorities say.



Mataura paper mill has tonnes of chemicals of various kinds, which could mix with floodwaters and release ammonia gases. Photo: RNZ / Rebekah Parsons-King

An old paper mill storing a hazardous substance - ouvea premix - is in the flood zone in Southland, where severe weather has flooded the Mataura River.

When saturated with water, the substance being stored in the mill creates ammonia gas - a pungent, colourless gas that is toxic to humans and the environment.

Invercargill mayor Tim Shadbolt said the local councils have been working for years to reduce the risk.

"There has been a movement of some of the dross out of the area but it's a large amount that's being stored at the paper mill and to tackle that is going to require a huge commitment from government as well as local authorities."

A Mataura resident said a large number of locals were calling on the council to remove the toxic waste the day before the flood waters hit.

Local resident Gem Burr said the chemical should not have been left in the mill. She said yesterday many locals commented on the council's social media pages calling for the waste to be moved, but all the comments were ignored.

Another resident, Warren Gaudion, said the old paper mill which is being used to store toxic waste was known to flood.

Gaudion said he worked in the old paper mill for years, and over the years saw several floods through the building.

He said when the river rises it hits a bottle neck and goes through the building and was one of the reasons why the mill was ultimately closed down.

He says it is Tiwai Smelter's by-product and he believes they should deal with it.

Emergency Management Southland controller Angus McKay said flood water would soon reach the mill.

McKay said although the town was evacuated, he hoped enough water could dilute the toxic gas.

"We're pretty sure that that water is gonna start impacting on that building.

"There's a lot of premix in there, there's around 10,000 tonnes of it, it's not just one barrel of stuff. It's on various levels and of various types."

McKay told Jesse Mulligan on RNZ *Afternoons* the premix was less of a priority than the overall flooding situation, and there was a plan to deal with it.

"From my point of view I've probably got a lot more pressing issues to deal with than the ouvea premix at the paper mill at the moment," he said.

"The main hazard we've got is the flooding from all this water we've got down the riverways.

"There's a long-term work plan in place which is removing it (the ouvea) from by the river - which is not a good place for it to be - but really if the water gets into that paper mill there's a chance that it might give off some ammonia gas and the

other problem we've got with it is that it might leech some contaminants into the river.

"Having said that, because of the flooding we've got really big evacuation zones around the paper mill so, you know, I'm not aware of any ammonia coming off the paper mill at the moment and we've got so much water coming down the river it'll be diluted right quickly.

He said they had a camera in the mill to monitor the water.

"So actually we can see the level of the water and it's right at the point where it might enter the mill. We're past that peak flow and we've got another four hours or so of peak water, so it still could go into the paper mill but at the moment it doesn't look like it's going into the building at all."

Canterbury environmental chemist Sally Gaw said exposure to major toxins stored in the paper mill could be fatal.

She said exposure to ammonia gas can damage the skin, lungs and eyes and, in severe cases, cause death.

She said if the storage site is flooded, the area will need to be evacuated and all potentially exposed people will need to be checked by a doctor.

Professor Gaw said there could be impacts on the Mataura River including toxicity to aquatic organisms and livestock. The ammonium could also trigger the growth of algal blooms.

"The aluminium hydroxide would be in the form of fine particles which would increase the particle loading in the river and may clog fish gills and smother organisms living on the riverbed."

Residents were being told to evacuate

(<https://www.rnz.co.nz/news/national/408861/southland-flooding-residents-in-low-lying-areas-told-to-evacuate>) from low-lying areas of Gore, Mataura and Wyndham earlier today.

He said the evacuation plans seemed to be going well, but there was a lot more assessment needed in the rural areas.

"Gore did an amazing job, they evacuated earlier this morning. It looks like we dodged a bullet there, the river defences have held pretty much so we're hoping later on this afternoon once we've done an inspection we're looking promising for letting people back into Gore.

"Mataura we're really on a watch and wait, and the same for Wyndham which is a bit further downstream.

"They're our kind of urban areas, it's fair to say we've got a lot of water in the rural areas. We've really got a few days ahead of us to assess all the damage around the rural areas and how we can help people deal with that."

River levels were expected to peak in Wyndham about 3.20pm. The Mataura River, which flows through the Southland town of 550 residents, was expected to peak about 5.50pm.

Everybody has been ordered to leave and head for the Mokoreta or Mimiha Halls, which are serving as evacuation centres.

People have been asked to take enough belongings to last them for a number of days, as it may be some time before they are able to return.

A state of emergency was declared in flooded Southland yesterday (<https://www.rnz.co.nz/news/national/408834/southland-flooding-state-of-emergency-declared>), including Gore, and dozens of people were rescued from tracks in Fiordland (<https://www.rnz.co.nz/news/national/408789/fiordland-flooding-trapped-tourists-rescued-from-howden-hut-on-the-routeburn-track>) after being cut off by torrential rain.

Some of the tourists rescued yesterday described a narrow escape with just two minor injuries after a slip swept into the wall of their hut (<https://www.rnz.co.nz/news/national/408851/milford-evacuees-describe-slip-that-crashed-into-tramping-hut>), crushing bunk beds and a completely destroying a block of five toilets.

Hundreds more people trapped by flooding and slips in Milford Sound (<https://www.rnz.co.nz/news/national/408789/fiordland-flooding-trapped-tourists-rescued-from-howden-hut-on-the-routeburn-track>) overnight were being evacuated by helicopters to Te Anau this morning.

Emergency Management Southland controller Angus McKay said the rescue of the 495 trappers, local residents and staff began at first light. They had stayed at Mitre Peak lodge last night.

The road to Queenstown is blocked and likely to remain so all day, so evacuees may be flown to Queenstown from Te Anau Airport.

Guests from four luxury lodges in Fiordland were being airlifted to Glenorchy to relieve the pressure on Te Anau, which is swamped with other evacuees.

A spokesperson for Ultimate Hikes, Shaun Liddy, said the company has had 130 clients and staff trapped at lodges in the Milford area.

He said the private rescue operation had to wait until helicopters had finished taking hundreds of other tourists and locals from Milford Sound.

Mr Liddy says everyone is now out of Quintin Lodge, and the evacuation of Pompolona, MacKenzie and Mitre Peak lodges was beginning late morning.

Ultimate Hikes guests are being flown to Glenorchy where buses are standing by to transfer them to Queenstown.