

Sugarloaf 3 Incident FAQ's

The following Q&A provides information in relation to the release of non-toxic, non-hazardous foam into the air, during routine maintenance at one of AGL's Camden Gas Project's producing wells.

Question – What happened at the Project's Sugarloaf 3 well on 17 May 2011?

Answer: On 17 May 2011, an AGL gas operations workover team conducted routine maintenance at its Sugarloaf 3 well, located near Campbelltown approximately one kilometre away from the Glen Alpine residential area. The team used water, soap and air to clean sand and coal debris out of the path used by gas and water to flow out of the well. This is a routine well maintenance activity which is carried out every two to four years.

During this maintenance activity, the water, soap and air were circulated down the well to clear debris. The water, soap, air and debris was then returned to the surface to be captured by a tank on the surface. An open top tank with a separator (degasser) was located 15 to 20 metres from the well to capture the returns from the well. The degasser's function is to separate the fluid from the air or gas. The fluid is directed into the tank through a pipe which is connected to the wellhead, while the air and gas are directed up to vent. The separator is a safety device to ensure that gas or air is dispersed and vented to atmosphere reducing the safety hazard. Located between the separator and well is a choke manifold with valves that can be adjusted to manage the flow from the well. In this instance, the degasser was not being operated in a proper and efficient manner. The amount of liquid soap mixed with water in this process varies, but is usually about two to three litres of liquid soap mixed with about 1000 litres of water. Water and air are recovered from the well, captured in a tank via a pipe and not are visible to onlookers. In this instance, the workover crew detected a large amount of produced water in the well, and increased the proportion of soap to lighten the water and increased its flow to the surface. This resulted in excessive foaming that created a visible plume of white soapy mist being released from the degasser.

The workover crew believed the soap foam released was harmless, so no immediate action was taken to stop the release of foam from the top of the degasser. White soapy mist shot upward for two to five minutes and dissipated into the air or fell within 40 metres of the well. Immediately following the incident, AGL took several steps to ensure that no further release occurred during the maintenance activities.

Question - What has happened now?

AGL has acknowledged that the release of a non-toxic soapy mist at its Camden gas project in May was unacceptable to the community.

After carrying out an investigation in conjunction with the Sydney Catchment Authority, the Department of Trade and Investment, Regional Services and Infrastructure and the Department of Planning and Infrastructure, the OEH has concluded that "there was no significant harm to the surrounding environment from the emission of foamy liquid," but the maintenance equipment "was not being operated in a proper and efficient manner as required by condition 02 of the Environment Protection Licence."

"OEH has determined that an appropriate regulatory response to this incident is to issue a formal warning to AGL Upstream Investments. The purpose of this letter is to serve as a warning to your company and its employees that environmental performance and statutory compliance must be continually maintained," the OEH said.

AGL Group General Manager Upstream Gas Mike Moraza said AGL accepted the finding and deeply regretted the incident. "As we have said from the outset, this should never have been allowed to happen," Mr Moraza said.

"AGL takes its commitment to safety and the environment very seriously and this incident was clearly a breach of our own very high standards. While we have always been confident that there was no harm to the environment and we welcome OEH's similar conclusion, we understand that incidents like these can cause concern in the community.

"We will heed the warning from the OEH and ensure our employees understand the seriousness of the situation. We have now taken steps to ensure the incident will not be repeated."

In its investigation to determine how the incident happened, AGL found that the soapy mist was released when liquid soap that was being used to clean the well was aerated and not captured in the water storage tank. The work crew were aware that the soap was non-hazardous and non-dangerous and the foam release continued for a period of between three to five minutes.

According to independent analysis performed by ALS Laboratories, the soapy mist caused no impact to the surrounding environment.

Following the incident, AGL voluntarily submitted water and soil samples to the independent laboratory to address any community concerns over the soapy mist release. The analysis of the area surrounding the water storage tank also showed:

- The tank's water quality was typical of produced water;
- No benzene, toluene, ethylbenzene or xylenes (known as BTEX) were present in soil or water samples; and
- Soil salinity and surfactant levels did not increase.

Question: What actions has AGL taken regarding this incident?

Answer: Although AGL had no reason to suspect that the incident caused harm to the environment or would have any further impacts on the surrounds, AGL acknowledges that this release was unacceptable, recognises that this should never have been allowed to happen, and understands that incidences like this cause concern in the community. As such, AGL:

- Reported the incident to:
 - the Office of Environment & Heritage (OEH);
 - the Department of Trade & Investment, Regional Infrastructure and Services (DTIRIS);
 - the Sydney Catchment Authority (SCA);
 - the Department of Planning and Infrastructure (DOPI) (landowner) whose property hosts the well; and
 - Broughton Anglican College (adjoining neighbour)
- Collected soil samples from the deposited area and sent to a NATA accredited laboratory for analysis;
- Collected water samples from the mud tank and sent to a NATA accredited laboratory for analysis;

- Engaged external environmental consultants URS to undertake a soil investigation study;
- Completed an internal investigation into why the foam was discharged;
- Discussed the incident with the Resources and Energy Minister Chris Hartcher;
- Sent a letter and hosted a Camden Gas Project site visit to MP Jeremy Buckingham, MLC; and
- Communicated details of the incident at its operational safety meeting and reemphasised its “Step Back Policy” which gives anyone on an AGL site the authority to stop an activity that he or she deems unsafe or environmentally unacceptable

Question – What was the environmental impact of the sugarloaf incident?

Answer: Results from the URS Soil Investigation Report concluded that:

- The analytical results indicate that there is no evidence that the release of foam has caused adverse environmental impacts on the immediate vicinity of the release area; and
- URS also consider it is unlikely that the release of foam would have carried to SCA’s water storage dam located down slope of the release area.
- The URS report can be viewed here:

http://www.agl.com.au/Downloads/AGL%20Sugarloaf03_Soil%20Invest_Rpt_Final.pdf

Question – How will this incident be prevented from recurring?

Answer: AGL has taken steps to ensure the incident should not be repeated:

- Modifications were made to the degasser, installing a bypass that will accommodate the flowback of the soap foam into the mud tank.
- AGL Senior leaders have communicated with all field based employees and contractors, the importance of ensuring AGL activities do not have any visual impact on the community. Work Procedures are being updated to reflect the modified degasser and choke back requirements.
- Work Procedures are being updated to limit and specify the volumes of soap to be used when cleaning a well
- Non non-hazardous, non dangerous goods defoamer will be used on all future workovers to ensure foam is not blown from the mud tank.

Throughout the investigation, AGL has cooperated with all government agencies, external stakeholders, and the community. A link to the OEH warning letter dated 4 August 2011 is provided below.

<http://www.agl.com.au/Downloads/AGL%20Sugar%20Loaf%20Warning%20Letter.pdf>