

August, 2017

RESPONSE TO MINING WATCH CANADA – ANAWE LIME INCIDENT

Introduction

The purpose of this briefing note is to provide responses to a series of questions forwarded from MiningWatch Canada about the chemical exposure incident that occurred at the Porgera Mine Anawe Waste Site on July 13 2017.

About the incident

- On July 14 a number of people in two villages neighboring the Porgera Mine Anawe Waste Dump area reported to mine personnel that they were experiencing burns to their skin after coming into contact with mining waste material.
- The source of the material was identified as lime bearing process waste material removed from the Anawe neutralization plant and disposed of in 3 separate loads placed on the Anawe Erodible and A20 waste dumps on July 13.
- Samples of the material were sent to the Australian Government's National Measurement Institute, who report that the material was predominantly comprised of calcium oxide ("lime"), together with various trace elements.
- A comparison of the levels of metal concentrations found within the waste material against Australian NEPC Health Investigation Levels for Recreational Land Use (2012) showed that metal concentrations were well below their respective NEPC Recreational C HIL values.
- There is a negligible risk of any ongoing health impacts from exposure to the non-lime elements of the waste material.
- Approximately 100kgs of the lime-bearing material was illicitly removed from the dumping sites by community members for the purpose of gold-panning, which they undertook in ponds and a run-off drain in a bush area adjacent to the dumping area. It appears that the chemical burns experienced by community members arose as a result of this subsequent handling of the lime-bearing waste material, which, when combined with water, produced a highly alkaline solution.

Response to the Incident

- In total, 152 people experienced skin burns consistent with contact with lime.
 - 141 experienced minor skin inflammation and irritation;
 - 8 experienced superficial skin burns requiring additional treatment;
 - 3 experienced slightly more serious skin burns, and required admission to the site clinic overnight for further treatment and observation.

- Medical treatment was provided by a medical team led by the doctor in charge of the Mine Medical Centre, assisted by the Centre's registered nursing staff. These personnel worked directly with community liaison personnel from the two affected villages (Pakien and Panandaka) to identify people who had come into contact with the lime-bearing material.
- Any person who presented with symptoms such as those listed above was provided with medical assistance. A further 23 people with unrelated conditions were also medically assisted by the medical team during the various village visits.
- The treatment provided to those who had come into contact with the lime-bearing material varied in some cases according to individual symptoms, however, in broad terms, the following typical treatments were provided after an initial medical examination:
 - 141 cases of minor skin inflammation and/or irritation (generally treated at village / residence):
 - Topical application of silver sulfadiazine;
 - Oral dose of antihistamine (Loratidine);
 - Oral dose analgesic (Paracetamol);
 - Precautionary course of oral antibiotics (Amoxyl)
 - 11 cases of skin burns (admitted for treatment at the Mine Medical Centre):
 - Topical application of silver sulfadiazine;
 - Intravenous dose of corticosteroid (Hydrocortisone);
 - Precautionary 24hr course of intravenous antibiotics (Amoxicillin/clavulanic acid)
 - Intravenous or oral dose analgesic as necessary (Paracetamol)
- Once the primary source of the lime-bearing waste material was identified at the dump, site management immediately secured the area containing the material so that it could be safely neutralized. This work was completed on July 14.
- Environment, Community and Safety teams engaged the local community to help identify any further cases of exposure to the material, and to ensure that any remaining hazardous material that had been moved away from the dump area was safely removed. This work was completed early on July 15.
- Management promptly reported the incident to PNG Mining and Environment regulators (the Minerals Resources Authority and Conservation and Environmental Protection Authority, respectively), and initiated standard internal incident investigations to examine the causes of the incident, and to identify any necessary remediation that may be required.
- A team of State officials from the MRA, CEPA and the Department of Health was invited by management to visit and inspect the site of the incident and speak with affected communities, and did so on July 20.
- The mine's Environment Department has reported to CEPA the results of independent laboratory analysis of the waste material, and soil and water samples taken at the impacted sites.

- A precautionary Public Health investigation was initiated and undertaken by public health officials and an independent environmental health researcher, Dr Keith Bentley, from the Australian Centre for Environmental Health.
- The investigation found that there is negligible risk of longer-term health implications from exposure to the material, and that treatments provided and actions undertaken were appropriate and professional clinical responses to the incident.
- The report from this investigation will be provided to all relevant public officials and to representatives of the impacted communities and affected persons themselves.
- Soil and water sampling at the impacted sites is continuing to provide ongoing confirmation that no further hazard is present.
- While some remedial action has already taken place, including the provision of medical assistance and environmental remediation, any further remediation activities will necessarily be the subject of discussion with affected persons and public officials.
- A further update on activities arising from those discussions can be provided following those discussions.