

SAPREF IMT FLOOD RESPONSE -12 APRIL 2022

To : See Distribution List
From : Sapref Chief Fire Officer
Date : 20 April 2022
Subject : *Sapref Refinery Flood Incident – Sapref Incident Management Team response*

Dear Incident Management Team.

Sapref was very unfortunate to be impacted by severe flooding in the early morning hours of Tuesday 12 April 2022. The call for the Incident Management team (IMT) to be activated came from the Shift Manager (At the Refinery) and at about 03:10 AM the Incident Management Team was active on the Teams platform with the Incident Commander [REDACTED] taking the lead.

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This report is a **summary** of my personal reflection on the management of this incident by the IMT. The report covers the timeline from the activation of the IMT until the delegation of actions to the Business Continuity Team (BCT) and includes the actions delegated. The report will reflect the positive aspects and significant concerns whilst managing this incident, the learnings that may reduce the impact of such event on people on site and improvements to the response of the Sapref Incident Management team as well as Business continuity teams in a similar situation in future.

1. Immediate Barriers encountered by the IMT:

1. The **Refinery was not accessible**, and therefore the Emergency Head Quarters was not available (No access to the equipment and information stored in the EHQ)
2. **Sapref ICT network** was down which prevented the IMT from accessing server-based information.
3. **Two Way Radio network** went down during the incident
4. **Electrical power** at the Refinery was down. Electrical power within the eThekweni municipal district was also severely impacted.
5. **Sapref staff** (including IMT members on standby) were **directly impacted** at their own dwellings
6. **Cellphone towers** (Vodacom and MTN) were severely impacted and cellphone connection was unstable or non-existent.
7. Some IMT members on standby had **left their Laptops in the office** at the Refinery.
8. **Heavy rain** with poor visibility was encountered with winds between 60 and 80 knots.
9. Sapref was not the only entity impacted by this incident and **KZN Emergency services** were stretched beyond their capability within the Province.

2. The management of this incident reflected the following significant positive aspects:

1. **Emergency Response plan activated** - The Shift Manager requested the activation of the IMT via call out.

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2. **IMT Activation** - The IMT IC and a few IMT members officially started managing this incident remotely at about 03:10 via MS Teams.
3. **MS Teams** used to manage this incident remotely. (A few of the IMT on call were part of a MS Teams virtual Tier 3 National Marine Oil spill exercise during September 2021 which added value in using this platform)
4. **Incident assessment** - Initial communication with staff in the Refinery was established via cellphone with On Duty Shift Manager being focal point to obtain critical information
5. **IMT Staffing** - IMT positions (Command and General Staff) that were vacant (Connection problems etc.) were filled by calling other IMT members into the team
6. **Incident Action Plan** (ICS 201) was generated although the official ICS form was not available and contained the following as a minimum.
 - i. Information on type of incident and immediate action required was gathered
 - ii. Established completeness of IMT Organization on the Teams call
 - iii. Resource requirement identified
7. **Incident Objectives** (ICS 202) were generated although the official ICS form was not available which included set objectives inclusive of the basic incident strategy, incident objectives, Weather forecast and tides, command emphasis/priorities, and safety considerations. The objectives were as follows:
 - a. **Rescue of people on site**
 - i. Getting people to higher ground (Building roofs etc.)
 - ii. Prioritizing the rescue activities based on people location and risk
 - iii. Getting rescuers with watercraft to remove people from the Refinery
 - a. Amsol
 - b. Spilltech
 - c. NSRI
 - d. SAPS
 - e. Medic rescue
 - iv. Getting air support (Helicopters)
 - a. Acher
 - b. TNPA
 - c. NSRI
 - d. SAPS
 - e. SANDF
 - b. **Refinery risk to trapped employees and community**
 - i. Explosions
 - ii. Fires
 - iii. Toxic or hazardous releases
 - c. **Environmental risk**
 - i. Toxic and chemical pollution
 - ii. Oil pollution
 - d. **Communication**
 - i. Employees affected next of kin
 - ii. Sapref staff
 - iii. Authorities
8. **Additional Resources** - IMT called additional resources (General Staff Section support i.e. Operations, Logistics, Planning and Admin/Finance sub sections) in to support the team
9. **Rescue operations** - All staff on site was rescued successfully without having any serious injury

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10. **Record keeping** - (Status - ICS 209 and Resource log - ICS 210) was initiated and was actively worked on the Teams platform to ensure all actions are initiated and closed in absence of ICS forms.
11. **Medical log** (ICS 206) – Available hospitals were identified for any persons requiring medical assistance after Rescue and movement of all patients were recorded in absence of ICS forms
12. **Communication Plan** – Communication platforms established for Staff and the Community, Media, Shareholders and other stakeholders.
13. **Business Continuity Team (BCT)** - The IMT after completing their set objectives established a Business Continuity team who was tasked to deliver on specific actions via designated sub streams (As per below).
 - a. People Wellbeing stream
 - b. IV Ops supply
 - c. SBM Ops restart
 - d. Safe Park of Refinery
 - e. Environmental Impact
 - f. Communications
 - g. Logistic Stream
 - h. Asset Damage
 - i. Investigation Team
14. **ICS 300 model** -It was clear that the IMT followed the recognized ICS 300 model that was introduced in October 2020 within Sapref, although the required information and ICS documentation was not available on the MS Teams platform the incident was managed via spreadsheets and other available resources.

3. The management of this incident also highlighted the following significant concerns.

1. **People accounting** - Precise and immediate accounting for staff, and Service providers on site was not available (ineffective accounting system and not available due to network loss)
2. **Loss of Sapref Server**– Server based information such as critical emergency response procedures, staff details including next of kin, stakeholder contact numbers, checklists and forms etc. not available. *Maybe a Cloud based server for all critical ICT resources to be considered?*
3. **Business Continuity Plan (BCP)** – No formal BCP for Sapref based on all the Credible emergency scenarios are available.
4. **Flood response plan (HSSE.PR. 7008)** – This plan does make provision for flood events on the assumption that early warning will be available, and all role players will be communicating e.g. Umgeni water re the Shongweni dam. This plan does not cater for response during a flood e.g. Rescue resources, Staging areas, food and blankets etc.
5. **Sapref Emergency Response resources** – The Sapref Fire department firstly not having resources to deal with this type of Incident and secondly being impacted and disabled by such event to the extent of requiring rescue. *Relocation of the Sapref Fire department to be considered for this type of event?*
6. **External Emergency Response resources** – The unavailability of rescue resources for this type of event especially air resources (Helicopters). This could also be due to prioritization of rescue efforts when an event impacts a large geographical area. *Dedicated SLA for aircraft resources specific to Sapref?*

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7. **EHQ** – The unavailability of the EHQ (Resources e.g. Procedures, Contact information etc.). *A fully equipped EHQ off site at a central location?*

4. **Records of the management of this incident** is available on the MS Teams platform in a secure folder that is accessible to the Sapref LT/ELT. These records are in the following format:
- a. Voice recordings (IMT engagement)
 - b. Video recordings (Information obtained during incident management)
 - c. Photos (During and post incident)
 - d. Scribe notes and other role player notes (MS Teams Chat)
 - e. Word, Excel, PDF and Power point documents (Communication to stakeholders/Roll call and Rescue priorities, weather maps etc.)

We were able to Manage this incident via the MS Teams platform and should consider having all information in the EHQ on the cloud as well as having remote camera access for the SBM and other cameras.

I am sure the **Incident investigation** will answer some of the above questions as well as generate value add learnings that can be implemented to ensure a reduced impact on our people, asset and the environment in future

This IMT response to the incident report should be read with the Incident investigation report and other records from the incident to ensure a full understanding of the management of this incident.

Kind Regards

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