



**Auckland Civil Defence Emergency Management
Group - Co-ordinating Executive Group
Report - Sims Pacific Metals Fire Response**

Prepared by:

Vern Walsh and Steve McDowell

Meeting and Governance Solutions Limited

6 November 2018

Contents

Purpose of Report	3
Incident Summary	3
Review Process	5
Review Findings	5
Finding 1: Response to the Fire.....	5
Finding 2 - Smoke Plume.....	6
Finding 3 - Scale of the Incident.....	7
Finding 4 - Communication with the Community.....	8
Finding 5 - Regulatory Issues	9
Additional recommendation - Exercising and Testing Response Plans	10
Summary of Recommendations	12
Appendix One – ARPHS Letter Drop	13
Appendix Two National Environmental Standards for Air Quality	14

Purpose of Report

A fire at Sims Pacific Metals at 263 James Fletcher Drive in Otahuhu, Auckland on 7 March 2018 resulted in a significant smoke plume that was predominantly South to South West of the site.

The purpose of this report is to outline key findings from the review of the response to the fire in relation to its impact on the local community.

The report addresses:

1. The effectiveness of the coordination between the various lead and supporting agencies (as defined by the Civil Defence Emergency Management Act and related national guidance);
2. The respective responsibilities for communications to the community from those agencies, and communication between agencies;
3. The regulatory (zoning) provisions for the affected area and whether these are adequate;
4. The role of local board chairs in a civil defence emergency and how they support the CEG in these situations with up to date and accurate information.

A key point to emphasise is that the cornerstone of the review is to learn from the incident and make changes where necessary to improve the overall management of these types of incidents by agencies on behalf of Aucklanders.

Incident Summary

A fire was detected by a security guard at Sims Pacific Metals at 263 James Fletcher Drive in Otahuhu on 7 March 2018 at 1:56 AM. The cause of fire remains unknown but occurred in the area where recycling materials, debris and waste from old cars was treated.

The fire was responded to by Fire and Emergency New Zealand (FENZ) who set up an incident management team which is a standard response process for an incident such as this fire.

St John response to the fire included triaging, treating and transporting patients to Middlemore Hospital, liaising with Health and Emergency Service partner agencies and supporting the lead agency FENZ at the scene for the duration of the incident.

The fire generated a significant smoke plume which became clearly apparent as the sun rose, with the wind direction taking it predominantly south of the site covering significant parts of the Māngere-Ōtāhuhu Local Board area. The smoke extended as far as the Auckland airport.

The incident did not generate a formal declaration of a state of civil defence emergency and was managed by agencies including FENZ, Auckland Regional Public Health Service (ARPHS),

St John and Auckland Council (AC). As noted earlier the lead agency was FENZ at the site of the fire.

Public communication was a key area that this review has considered and is reported on in more detail later in this paper. Auckland Council was asked by FENZ to assist with messaging to the community. Auckland Council's Manager of Corporate Communications coordinated public messaging from the morning of the incident which included the use of social media channels and media outlets. Messages as early as 8:00am were being posted on the Auckland Emergency Management (AEM) social media pages advising people to keep windows and doors closed and to stay indoors due to the smoke.

A letter drop by the Auckland Regional Public Health Service (ARPHS) was made at about 2:00pm on the day of the fire with advice on staying indoors and that the "the range of materials involved in the fire is not yet known." That letter is attached as appendix one.

The following is a summary of the timeline of the incident:

Wednesday 7 March 2018

- 0156hrs Fire reported and FENZ response underway
- 0551 hrs ARPHS and AC Pollution team notified
- 0630hrs AEM Duty Officer passed FENZ request for communications support to the duty Public Information Manager E
- 0738hrs Email to elected members with fire update from AC Manager of Corporate Communications the AC Emergency Management Duty Officer (note, email drafted by AC Manager of Corporate Communications in their capacity as duty Public Information Management (PIM) Manager).

Messages continued to be shared on social media throughout the day
- 1040 ARPHS school visits (Kings College, Otahuhu College, Mangere East Primary, Mary Mackillop School, Koru School, Te Kura Marae Primary, Shiloh Early Education Centre, Papatoetoe Intermediate School, ATWC School, St Joseph's School
- 1400hrs Public health advice drop by ARPHS to parts of the community

Ongoing updates by response agencies on social media and media releases
- 1711hrs Māngere-Ōtāhuhu Local Board Chair is supplied with public health FAQ for distribution on social media and via community networks.

Thursday 8 March 2018

- Ongoing updates by response agencies on social media and media releases
- 1712hrs FENZ stand down

Review Process

- A Review of documentation relating to the incident including:
- The FENZ incident report timeline;
 - ARPHS – debriefing documents, situation reports, Hazardous Substances Incident Response Protocol;
 - Social media records including information posted via Auckland Council.
- B Interviews with response agencies and other agencies / organisations including FENZ, ARPHS, Auckland Council Communications staff, Auckland Council Regulatory staff, Auckland Emergency Management staff, St John, Manukau Ward Councillors and the Māngere-Ōtāhuhu Local Board.
- C Community engagement with the local community through targeted contact using the database of community leaders from the Māngere-Ōtāhuhu Local Board (survey monkey tool used for this process).
- D Confirmation from response agencies and Auckland Council staff of the accuracy of this report.

Review Findings

Finding 1: Response to the Fire

This incident can be viewed as two events. The first is the fire itself and the requirement for FENZ to manage the process to deal with the fire. The second, which is much less clear in terms of “ownership”, is the management of the smoke plume that resulted from the fire. The agencies noted that this incident was larger than a normal incident because of the smoke plume and commented that better coordination around the plume was needed. The assessment of the response to the smoke plume is considered under Finding 2 below.

All agencies that were part of the interview process for this review agreed that the actual response to the fire and its containment / extinguishing worked well. Coordination between agencies e.g. FENZ, NZ Police and Auckland Transport regarding road closures and notification of those closures worked well.

Community engagement on the response and communication from this incident was undertaken to people from a database from the Māngere-Ōtāhuhu Local Board. 33 people responded to the survey. Positive feedback was given to the response to the fire (FENZ) but concerns were raised about communication about the smoke plume.

Overall, the response to the fire itself was well managed.

Finding 1 - Recommendation

There are no recommendations for improvement arising from this on the fire response.

Finding 2 - Smoke Plume

Situation

By daylight on the morning of the fire it was clearly evident that there was a large smoke plume from the fire that had drifted in a southerly direction.

A key point that emerged quickly was the lack of knowledge of the content of the smoke plume and how to assess its effect on the community.

An early assumption made by agencies was that because the site did not accept batteries or other harmful substances, the smoke plume would not have had heavy metal elements in it.

There are monitoring devices on the site itself (situated at the northern end of the site) and also nearby the site as Sutton School. These devices showed occurrences of PM10 in the smoke plume. The monitoring device on site did not provide much assistance because the wind was blowing in the opposite direction from its location.

Smoke monitoring at a monitoring station located at Sutton School did show elevated levels of smoke (particles in the smoke) at different times of the day depending on the very variable wind. Compliance monitoring is measured over a 24-hour period and over that time, there were only very slight exceedances above the environmental standard.

Getting accurate information

Getting access to accurate and timely information has been raised as an issue. It is important that the right information is communicated to people affected and what actions if any they should take. We understand that mobile monitoring devices are available, but the effectiveness of these devices is not well understood at this time.

Responsibilities for monitoring

A number of interviewees questioned why the smoke plume wasn't tested (if in fact that was the case) to determine toxicity with one agency commenting that testing what was in the plume should have been of primary consideration. It is understood that the only capacity for testing the smoke plume is for particle size, not for unusual toxic substances.

The National Environmental Standard for Air Quality (Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NESAQ) sets out responsibilities for monitoring air quality. Appendix two sets out the relevant clauses / schedule of the Standard.

This requires a regional council, in this case Auckland Council, to monitor the area where there are people and to give public notice if the standard has breached.

The NESAQ also provides that Auckland Council is responsible for monitoring the air quality standard. The Council does undertake monitoring of necessary sites - as was the case for

this property. These stationary monitoring sites will not be an effective way of testing for smoke plumes resulting from fires in all situations particularly where the smoke plume is extensive in terms of geographical coverage.

The fact that Auckland Council is required to monitor the air quality does not in itself require Council to manage the effects of any exceedances.

Finding 2 - Recommendation

That Auckland Council investigate additional (and possibly mobile) ways of testing toxicity of smoke plumes for future incidents and consider how this responsibility could be included in its Standard Operating Procedures.

Finding 3 - Scale of the Incident

A number of response or support agencies commented that due to the size and impact of the smoke plume, the methodology to co-ordinate responses should be considered.

Of prime consideration is the need to look at how individual agency response plans / Standard Operating Procedures are consistent with each other and whether they are fit for purpose for an incident such as the smoke plume. In particular, respondents raised the need to review and agree on responsibilities for developing and co-ordinating communications arrangements (leadership) and procedures. This is dealt with further in finding 4.

A number of agencies specifically referred to the Ministerial Review entitled “Better Responses to Natural Disasters and Other Emergencies” and in particular the concept of a declared “major incident”.

The Ministerial Review states “in all emergencies – regardless of scale – the consequences affect people, local economies, and communities. It is clear that local leadership, knowledge and engagement with those affected communities is integral to supporting trust and confidence and to ensuring an effective response.... We recommend providing the option to declare a ‘major incident’ in order to signal the significance of an event and achieve public recognition of the action being taken, without the extraordinary powers invoked under a state of emergency.”

It is understood that the “major incident” categorisation is not being considered further by central government.

Discussion with interviewees also shows that even if a “major incident” was declared, it may not have made any difference to the response actions. Reviewing current response arrangements and Standard Operating Procedures is more appropriate.

Finding 3 – Recommendation

That the response agencies and support agencies should undertake a coordinated review of relevant Standard Operating Procedures / response procedures to ensure that they are consistent and current and allow for integrated activation and response.

Finding 4 - Communication with the Community

Getting access to accurate and timely information has been raised by both the local board and other interviewees as an issue. Communication to the community was not as fast and clear as the community would like. The current protocols for media and community communication management sit with the agencies.

The coordinated incident management system (CIMS) that the agencies use for these types of incidents includes communication.

The following is an extract from the New Zealand Coordinated Incident Management System (CIMS) 2nd edition guide:

All responses aim to mitigate and manage the consequences for the affected community. This requires response personnel to effectively communicate with communities, understand their needs, and base their response and recovery actions on these needs.

The Public Information Management (PIM) role is a part of the CIMS model. This role is responsible for informing the public about the incident and the response (including actions they need to take), media liaison and monitoring, and community liaison.¹

Reviewing relevant Standard Operating Procedures including the provision of information between agencies and the provision of information to the impacted / interested communities should be undertaken. This is needed to address concerns about the availability of information for use by staff that will be responsible for public communications.

The fact that event did not meet the test for a declared emergency or an activated response, means that neither controller nor director formally engaged the PIM function. As is common, the duty officer phoned the duty PIM and the duty PIM gave communications advice.

As stated, the communication with the community was not fast enough and did not provide clear information in a form that was useful to the community.

It is noted that from 10:40am ARPHS and AC staff visited local vulnerable communities, such as the local schools directly affected by the fire plume.

The Māngere-Ōtāhuhu Local Board has a large database of community leaders and community groups that could have been used very early in the response to complement other more formal means of communication (social media, media releases). The potential

¹ New Zealand Coordinated Incident Management System (CIMS) 2nd edition guide page 40

for engaging quickly with community leaders and community contacts using local board databases should be explored further in relation to community engagement as an additional part of a major incident response.

A key opportunity for a future incident such as this scenario is the need to consider whether to activate relevant agencies earlier using the CIMS structure and in particular the Public Information Management function. It is considered that overall communication to the effects of the smoke plume would have resulted in a faster and more effective communications strategy if the Public Information Management function had been formally activated.

The fact that the Auckland Council Manager of Corporate Communications, as both duty PIM and in liaison with the AC media team, established an early programme of social media and other engagement activities for this event of the day of the fire meant that some information was provided early to the community. This would be enhanced with more integrated communication planning across all agencies and supports a review of current Standard Operating Procedures by all the agencies.

Community resilience has been raised as a point for review from this incident. Whilst the structure and services from CDEM Groups are in place to assist communities, communities need to have a certain level of responsibility for themselves. For example, creating a household emergency plan and having a getaway kit² are elements that have been reinforced with communities for many years. Part of ongoing community education for an event involving a large smoke plume could be to immediately close doors and windows and stay where you are. This is an element that the ARPHS may wish to further consider.

Finding 4 – Recommendations

That the response and support agencies review communications responsibilities and procedures for a major incident that has an impact away from the prime site of the incident.

That the role and resources available to Local Boards to communicate with their communities be considered as an additional communication mechanism in any review of Standard Operating Procedures relating to communications for major incidents.

Finding 5 - Regulatory Issues

This review has considered a range of regulatory issues that are relevant to the site and its operation which are summarised as follows:

5.1 Status of current activity on the site

The land use activity is an “Industrial Activity” under the Auckland Unitary Plan which is a permitted activity subject to compliance with relevant standards under part H16.6 of the

² Ministry of Civil Defence and Emergency Management website "Get Ready"

plan. Because the site is greater than 1000 m² it is deemed to be a high-risk activity under the Industrial and Trade Activity provisions of the Plan. Sims Pacific Metals require a resource consent under these provisions and are currently in the process of lodging an application for a resource consent because it is a high-risk site.

The site discharges stormwater through a wetland. It is authorised under a Stormwater Discharge permit which has been subject to regular compliance checks which have been found to be in accordance with the conditions of the consent.

The site also has a discharge consent for contaminants into the air which was granted in 2010.

5.2 State of compliance of current activity with abatement notices.

Two abatement notices were issued in 2014 due to high levels of dust and fine particle matter being measured near the boundary of the site. One of those abatement notices was complied with. No instances of non-compliance have been found as no instances of offensive or objectionable dust have been recorded since the abatement notice during routine inspections or in response to complaints in relation to that particular abatement notice.

The site is continuing a program of upgrade works to comply with the requirements of the second abatement notice. That notice required the site to continue to monitor for dust and to routinely report the results to Council.

Finding 5 – Recommendation

That council continue to monitor compliance with the current consents /abatement notices and undertake further work to clarify where the upgrade of the site is at and a timeframe for the completion of the upgrade works.

Additional recommendation - Exercising and Testing Response Plans

Agencies have shown themselves to be proactive in learning from this Incident by commissioning this learnings review and participating fully with it. We conclude that this review will be most effective if there is a multi- agency exercise to test the Standard Operating Procedures once they have been reviewed. This will confirm that coordination, planning, responsibilities, communication and deployment are appropriate for this type of incident.

Using the Sims Pacific Metals fire as a scenario for testing response plans and standard operating procedures along with communication protocols and tactics is proposed.

Additional Recommendation 6

That an exercise be held once a review of Standard Operating Procedures has been completed to confirm that arrangements for response and communication for an event such as the Sims fire are appropriate.

Summary of Recommendations

1. There are no recommendations for improvement arising from the finding in relation to the fire response.
2. That Auckland Council investigate additional (and possibly mobile) ways of testing toxicity of smoke plumes for future incidents and consider how this responsibility could be included in its Standard Operating Procedures.
3. That the response agencies and support agencies should undertake a coordinated review of relevant Standard Operating Procedures / response procedures to ensure that they are consistent and current and allow for integrated activation and response.
4. That the response and support agencies review communications responsibilities and procedures for a major incident that has an impact away from the prime site of the incident.
5. That the role and resources available to Local Boards to communicate with their communities be considered as an additional communication mechanism in any review of Standard Operating Procedures relating to communications for major incidents.
6. That council continue to monitor compliance with the current consents /abatement notices and undertake further work to clarify where the upgrade of the site is at and a timeframe for the completion of the upgrade works.
7. That an exercise be held once a review of Standard Operating Procedures has been completed to confirm that arrangements for response and communication for an event such as the Sims Pacific Metals fire are appropriate.

Implementation Recommendations

8. That the Coordinating Executive Group develop an action plan to implement the recommendations adopted by the Group Committee and that progress be reported in June 2019.
9. That the review report be provided to the Māngere-Ōtāhuhu Local Board for discussion.

Appendix One – ARPHS Letter Drop



07 March 2018; 1400h

Health advice for the public

Fire at Sims Pacific Metals Auckland, 263 James Fletcher Drive, Otahuhu

Auckland Regional Public Health Service (ARPHS) has the following advice for the public following the outbreak of a fire this morning at Sims Pacific Metals, 263 James Fletcher Drive, Otahuhu. This incident is being attended by Fire and Emergency NZ and is expected to continue smouldering until Thursday midday at least. Wind direction is light and changeable so locals may smell smoke at different times.

The range of materials involved in this fire is not yet known, however it is likely that scrap metal, car parts, petrol, oil and other possible pollutants are involved. ARPHS advises the public in surrounding areas to take precautionary measures to prevent breathing in smoke.

Households in the affected area, down-wind of the fire, should close windows, doors and ventilation systems. Anyone who remains in the vicinity is advised to keep out of the smoke.

People who smoke, the elderly, children, and those with heart disease, asthma or other lung conditions are at greatest risk of harm from smoke inhalation and should avoid exposure.

If you experience any acute effects from the fire such as difficulties breathing, wheeze, cough or chest pain then you should seek assistance from your primary health provider or call **Healthline on 0800 611 116 for free 24 hour health advice.**

In healthy people, most symptoms disappear soon after exposure to smoke ends, and cause no long-term health problems.

Kind regards

Dr Denise Barnfather

Medical Officer of Health

Appendix Two National Environmental Standards for Air Quality

Clause 3 – Interpretation

Airshed means—

- (a) the region of a regional council excluding any area specified in a notice under paragraph (b):
- (b) a part of the region of a regional council specified by the Minister by notice in the Gazette to be a separate Airshed

Clause 13 - Ambient air quality standards

(1) The ambient air quality standard for a contaminant specified in the first column of the table in Schedule 1 is that the contaminant must not exceed its threshold concentration in an airshed unless the exceedance is a permissible exceedance.

(2) The ambient air quality standard for a contaminant is breached if the contaminant exceeds its threshold concentration in an airshed and the exceedance is not a permissible exceedance.

(3) In these regulations,—

exceedance, for a contaminant, means an instance where the contaminant exceeds its threshold concentration in an airshed

permissible exceedance, for a contaminant, means 1 of the number of exceedances allowed for the contaminant in an airshed as specified in the third column of the table in Schedule 1

threshold concentration, for a contaminant, means the concentration of the contaminant specified in the second column of the table in Schedule 1 calculated as a mean for the time period specified in that column.

Clause 15 - Regional council must monitor air quality if standard breached

If it is likely that the ambient air quality standard for a contaminant will be breached in an airshed, the regional council must—

- (a) monitor the airshed in relation to that contaminant; and
- (b) conduct the monitoring—
 - (i) in that part of the airshed where—
 - (A) there are one or more people; and
 - (B) the standard is breached by the greatest margin or the standard is breached the most frequently, whichever is the most likely; and

(ii) in accordance with the relevant method listed in Schedule 2.

Clause 16 - Regional council must give public notice if standard breached

(1) A regional council must give public notice if the ambient air quality standard for a contaminant is breached in an airshed in its region.

(2) The notice must—

(a) be given periodically, at least once a month, until the standard is no longer being breached; and

(b) be given in accordance with the Act; and

(c) include—

(i) the name of the contaminant to which the notice relates; and

(ii) the time and place at which the standard was breached; and

(iii) the extent to which the standard was breached.

Schedule 1 - Ambient air quality standards for contaminants

In the following table,—

1-hour mean—

(a) means a mean calculated every hour on the hour for the preceding hour; and

(b) in relation to a contaminant at a particular location for a particular hour, means the mean of not more than 10-minute means, collected not less than once every 10 seconds, for the contaminant at that location during that hour

24-hour mean—

(a) means a mean calculated every 24 hours at midnight for the preceding 24 hours; and

(b) in relation to a contaminant at a particular location for a particular 24-hour period, means—

(i) the mean level at which the contaminant is recorded in the air, by continuous sampling of the air at that location, throughout that 24-hour period; or

(ii) the mean of the 1-hour means for that contaminant at that location for the preceding 24 hours

running 8-hour mean—

(a) means a mean calculated every hour on the hour for that hour and the preceding 7 hours to give 1 running 8-hour mean per hour; and

(b) in relation to a contaminant at a particular location for a particular hour, means the mean of the 1-hour means for that contaminant at that location for that hour and the preceding 7 hours.

Contaminant	Threshold concentration	Number of exceedances allowed
Carbon monoxide	10 milligrams per cubic metre expressed as a running 8-hour mean	1 in a 12-month period
Nitrogen dioxide	200 micrograms per cubic metre expressed as a 1-hour mean	9 in a 12-month period
Ozone	150 micrograms per cubic metre expressed as a 1-hour mean	None
PM ₁₀	50 micrograms per cubic metre expressed as a 24-hour mean	1 in a 12-month period
Sulphur dioxide	350 micrograms per cubic metre expressed as a 1-hour mean	9 in a 12-month period
	570 micrograms per cubic metre expressed as a 1-hour mean	None