



## Sunshine Groupe

“Nice one Sunshine”

## Sunshine Groupe

### Who are we?

- Sunshine Groupe is a family-owned business that has been operating in the Brooklyn Industrial precinct for three generations.

### What we do?

- Provide cutting edge integrated waste management and recycling services.
- Sunshine Groupe specialises in:
  - C&D, C&I Landfilling
  - Recycling construction and demolition materials
  - Sunshine Groupe divert and recycle between 200 – 250,000 tonnes of material from the landfill each year.



Over 85 years in the business

**“Nice one Sunshine”**



**SUNSHINE GROUPE**  
Recycling - Waste Management Specialists



## Underground Fire Incident

- A sub surface fire was discovered in landfill Cell 4 taking the form of a surface steaming hot spot on the 22.11.12.



## Underground Fire Incident

### **What is a sub surface landfill fire?**

- Fire or high temperature composting taking place beneath the surface within the landfill waste.

### **How is this caused?**

- Underground landfill fire is most commonly caused by an increase in oxygen content which in turn increases the bacterial activity raising temperatures.
- Increase in oxygen can occur due to differential compaction and waste settlement.

## Measures Deployed to Extinguish

- **Initial action taken**
- **EPA site visit and notice**
- **Further actions taken**
- **Ongoing action**

## Initial Action

- Concrete barriers were installed at the base of landfill Cell 4's sloping face to enable the fire to be dug out.
- Holes were dug into the waste to allow water to be pumped through to extinguish the landfill.
- Next steps once we were confident the fill was extinguished was to dig out the hot spots and replace with clay soil.

## EPA Site Visit & Notice

- EPA visited the site on 07.12.12 after monitoring landfill odours.
- EPA observed the action taken by Sunshine Groupe and offered some advice and feedback on the process.
- As part of the EPA's due diligence, a minor works pollution abatement notice was issued on the 14.12.12
- The requirements of the EPA notice were:
  - *"carry on works in Cell 4 at the premises to extinguish the sub surface fire and prevent odours from being discharged from the cell."*
  - *"carry on monitoring works on Cell 4 at the premises to confirm that the subsurface sub surface fire has been extinguished."*
- Works are due for completion by 14.02.13

## Further Actions Taken

- Large bench trenches were dug along the vertical face of landfill Cell 4 to create a tiered or stepped face.
- Works were compliant with OHS requirements.
- Each trench was saturated with water and was carefully monitored and once the waste stabilised, the extinguished fill was dug out and replaced with soil.
- A water truck was hired to supplement the existing water supply which was already committed to the Sunshine Groupe's two water trucks that were being utilised for on-site dust suppression.

## Further Actions Taken



Extinguishing landfill

Digging out burnt waste

## Further Actions Taken

- The additional water supply was drained into the landfill sump, then pumped back into the sub surface fire and on the top of the landfill for dust suppression where it had evaporated.
- Landfill Cell 4 fire extinguished and capped.



Landfill C4 capped

## Further Actions Taken

- Sunshine Groupe's commitment to extinguish landfill:
  - The works have required an additional fulltime excavator, water truck and dump truck to be hired and operated to complete landfill Cell 4 works
  - An estimated 2.4 million litres of water was required
  - Plant hire costs totaled \$53,010.

## Ongoing Action

- “Landfill Cell 4 listed on the Operation Managers’ daily inspection sheets and status to be reported back to the General Manager daily”
- Landfill Manager will do daily inspection of Cell 4 and take readings with a laser thermometer to check for any elevations in temperature and recorded on daily inspection sheets.
- Any elevations recorded will be reported to EPA and the works reviewed.
- Sunshine Groupe will continue to liaise with EPA and report on the status of landfill Cell 4.

[www.sunshinegroupe.com.au](http://www.sunshinegroupe.com.au)



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