Bunbury Household Hazardous Waste Facility Assessment

Key Findings Report

9 February 2018

Bunbury HHW Facility Assessment

1. Introduction

The purpose of the Bunbury Household Hazardous Waste (HHW) facility assessment was to assess the Permanent Facility against the '*Guidelines for the Design and Operation of Facilities for the Acceptance and Storage of Household Hazardous Waste'* (the Guidelines), and to compare the results to the audit conducted by WALGA in 2015.

The assessment is separated into eight main sections, which encompass the various elements of the Guidelines. The sections are: Risk Management, Location, Building Construction, Spillage Control, Safe Atmosphere, Administration, Security and Safety and Consideration for Specific Material. This Report will show the areas where improvements have been made since the previous audit, as well as provide recommendations for areas that require further development.

2. Results

The overall results from this assessment, along with the comparison to the 2013 and 2015 findings are shown in Figure 1. The overall score achieved across all categories for Bunbury's HHW facility was 91%, which is an 8% increase since 2015.

Six assessment categories showed improvement since the 2015 results, Risk Management (90%, up from 80%), Location (93%, up from 91%), Building Construction (100%, up from 83%), Safe Atmosphere (94%, up from 79%), Administration (96%, up from 82%) and Security and Safety (79%, up from 62%). Two categories showed reductions, Spillage Control (90%, down from 100%) and Consideration of Specific Materials (85%, down from 88%).

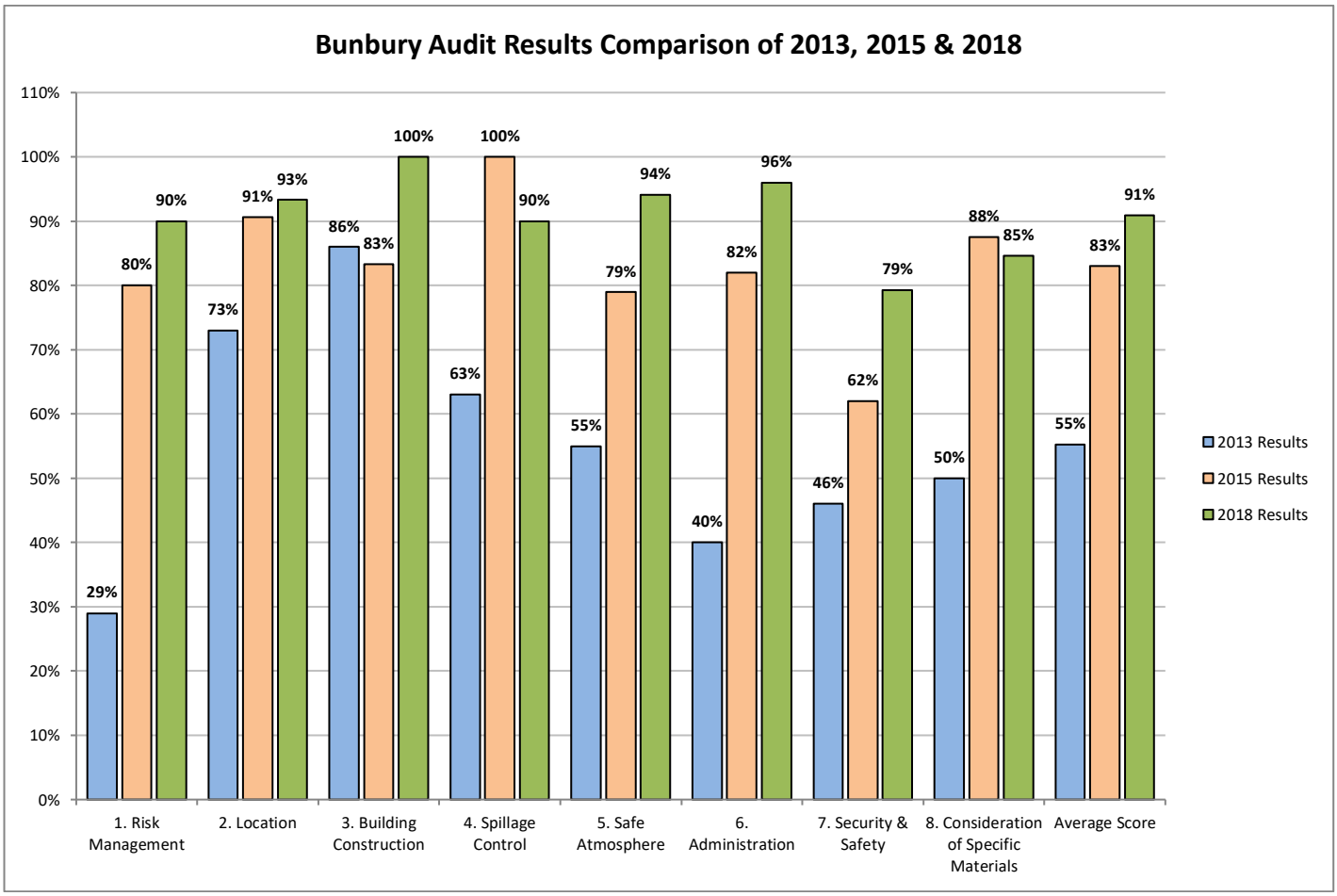

Figure 1: The Bunbury HHW facility assessment results.

3. Recommendations

The following are some specific recommendations identified in the assessment as areas where improvements can be made.

Risk management

- **Risk management:** The facility has a thorough Risk management document, however there are a few recommendations for additions:
    - Update the process for 5.1s (Oxidising Agents) to include checking the MSDS, as some are incompatible with other 5.1s. In this instance they are to be stored inside the Oxidising Substances sea container, in their own tub. Risk Assessment Updated.
    - Update the process for 5.2s (Organic Peroxides) to include that if any are received (although this is unusual) that they are to be stored in the Oxidising Substances sea container, but isolated in their own tub away from 5.1s. Recommend allocating one labelled 5.2 tub for these. Risk Assessment Updated.
    - Recommend adding "do not pick up any container by the lid" to any controls for container failure in case of broken or loose lids. Risk Assessment Updated.
    - Recommend ensuring both sea container doors are opened when accessing storage area to help further ensure enough ventilation. Procedure Updated.
    - Ensure there is a process outlined for chemical identification (using MSDS) for:
        - Any chemicals staff are unsure of Procedure Updated.
        - Chemicals that are higher hazard/more volatile (such as any 5.1s which are sometimes incompatible with each other, or any strong acids which should be stored separately etc.) Procedure Updated.
        - Determining if a material is an acid or alkali (if not readily apparent on the label). Procedure Updated.
    - Recommend adding extra information to the Acids & Alkalis section in the document, including ensuring they are not on the same shelving unit inside the Corrosives container, ensuring both areas are clearly labelled. Procedure Updated.

Location

- **Windsock:** Recommend investigating the addition of a windsock to the site in case of an emergency.

Risk Rating 4 - Low as we have never had an incident. Cost of windsock $600, not warranted at this time.

Spillage Control

- **Checking bunding:** Recommend checking the bunding in the bottom of the sea containers periodically and cleaning them out when required. It is possible that old spills or chemical residue has settled or might accumulate in the future.

Added to Housekeeping Audit. Checked monthly.

- **Spill Kits:** One of the kits at the storage area has been used, so needs new materials to be added.

This is on the monthly Housekeeping Audit already. No issues highlighted on previous audits.

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Safe Atmosphere

- **Ventilation:** Recommend ensuring both doors are opened when putting away chemicals to allow for additional ventilation and air flow, plus to allow enough light into the containers.
  Procedure Updated.
- **Acceptance area cover:** Investigate the addition of a cover over the acceptance area.
  Cost prohibitive.
- **Supervised acceptance area:** Currently the weighbridge operator asks public on entry if they have HHW and trained staff are available near the HHW acceptance area, however they are in charge of a large general drop off area and are not always available to supervise HHW drop offs or ask questions. Where possible, it is recommended to have a staff member supervise drop offs and where relevant ask members of public the potential identity of unknowns (which can then be labelled "possibly xyz"), or question if the materials are from commercial operations. This will allow for refusal of unsuitable items which shouldn't be dropped off.
  Not possible to have a dedicated staff member.

Administration

- **Administration areas:** Currently, when materials are put away, they are recorded on sheets which are located inside each HHW storage area, on the first shelving unit. It is recommended that administration functions should be separated from the storage facilities (for example a table outside the storage containers which can be used to record the materials). Other administrative functions which are already separate from the storage facilities include a whiteboard at the Transfer Station shed for safety notes which is checked daily and weighbridge and site office computers which are used to access new MSDS.
  Table not operationally viable.
- **Chemical inventory:** Currently an inventory of the stored HHW materials is recorded in each of the storage areas, however in the event of an incident inside the storage areas, no copies are available in a separate location. It is recommended that these lists are added to a computer spreadsheet to create a manifest, which can then be printed and placed in the site document box (referred to later) and site computers, to be accessed by staff or emergency operators.
  Investigate the possibility of keeping manifest in the weighbridge office.
- **Process for leaking containers:** Recommend adding to the current process for leaking containers, to include that once items have been placed in sealed bag or spare container, they are labelling "broken" or "leaking". Also ensure a sufficient supply of markers, labels and spare zip lock bags are available at a convenient location at the acceptance area and checked periodically.
  Already in the procedure.

Security and Safety:

- **Fire detection system:** Investigate the inclusion of a fire detection system at the storage facility.
  Cost prohibitive.
- **Signage:** Recommend adding a "Danger Keep Out, Authorised Personnel Only" or "Restricted Access" sign to the exterior of the HHW storage area.
  Containers are kept locked unless a staff member is putting chemicals away. Extra signage not required.
- **Hose:** For emergency situations it is recommended that a reticulated fresh water hose stand be available for dilution and wash down.
  We already have good Spill Response Procedures which would be better than dilution and wash down which may contaminate groundwater.
- **PPE:** Staff are recommended to wear eye protection, chemical resistant gloves and chemical apron whenever they are handling the HHW. Currently only some of the recommended PPE are being worn by some staff.
  All staff have access to the correct PPE required.

- **Document box:** There is a document box at the weighbridge which includes some of the recommended documents, such as the staff contact list, the Emergency Site Procedures and the scale drawings of site. It is also recommended that an up-to-date inventory of the total chemicals held in the facility by volume or weight and Dangerous Goods Class is also stored inside the document box.
  Basic manifest of chemicals already in document box. Impossible to keep up to date as it changes daily.

Consideration of Specific Materials

- **No smoking sign:** It is recommended that a "No Smoking" sign is placed outside the HHW storage area.
  No Smoking signs already in the Transfer Station area.
- **Hazchem placard:** It is recommended that a Hazchem outer warning placard is placed at the entrance to the Waste Management Facility.
  Will need to order.
- **Gas cylinder valves:** Ensure there is a process in place where gas cylinder valves are checked and closed when accepted/stored.
  Section added to Procedure and issued for consultation.
- **Oxidising gas:** In the event of oxidising gas being dropped off at the facility, ensure they are stored at least 3m away from flammable gas cylinders.
  Completed.

4. Conclusion

The Bunbury HHW facility achieved 91% compliance to the Guidelines, which is an 8% increase since the 2015 results. The improvements seen at the site are due to a combination of staff training, creating and implementing changes to site processes and procedures and the addition of infrastructure (funded by the Program and the Bunbury Harvey Regional Council). The Bunbury HHW operators have done a good job increasing the compliance to the Guidelines and with a few further changes they can continue improving operations and safety.