



HAZCON Pty Ltd

Health, Safety & Environmental Consultants

Report To:
Blake Dawson

HEALTH AND SAFETY REVIEW – CFA WEST SALE TRAINING COLLEGE

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1. EXECUTIVE SUMMARY

Mr Robert Jamieson of Blake Dawson, representing the CFA to provide legal advice, engaged HAZCON Pty Ltd to conduct a health and safety review of the CFA training ground located at West Sale, Victoria.

Based on observations, review of records and procedures as well as discussions with personnel, it is my opinion that there are no immediate risks to the health and safety of people working at the site and those attending the site either as trainees or visitors.

There are areas where health and safety management can be enhanced and technical issues addressed and these are listed in the recommendation below in priority order.

1. Review working alone policy and determine what activities can be done on the site by one person.
2. Notify WorkSafe of manifest quantities of flammable gas
3. Update Field Training Ground Management Manual.
4. Review SOPS for PAD exercises for consistency with actual process and also review against “best practice” processes from other training grounds.
5. Develop clear water management guidelines and corrective actions for high bacteria counts.
6. Prevent access to parachute platform.
7. Review first aid procedures in line with incident response and emergency management reviews.
8. Consider improving IT access to CFA systems.
9. The emergency eye wash to be repaired and the pipe work to be lagged.
10. Consider using LNG rather than LPG for fire simulations.
11. Address bund issues for petrol and diesel tank.

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2. INTRODUCTION

Mr Robert Jamieson of Blake Dawson has requested on behalf of the CFA for HAZCON to undertake a Health and Safety Review at the CFA's West Sale Training Ground to identify any potential health and safety risks to individuals utilising or visiting the site. The review is to be conducted as **confidential and subject to legal professional privilege**.

3. SCOPE

The following scope of work will be addressed as part of the project:

- A site visit to review the potential for health and safety risks posed by the current systems and practices involving the use and handling of chemicals and will encompass
 - Storage and handling of fuels and foams
 - Maintenance practices of critical equipment
 - Appropriateness of risk assessments for the chemicals used and the tasks undertaken utilising them
 - The potential for known disposal sites to present uncontrolled hazards
 - The rigour and relevance of training and documentation with respect to managing chemicals
- Interviews with various staff members to assess the level of chemical storage and handling knowledge and the degree to which the relevant policies and procedures have been implemented on site;
 - Photographic evidence will be taken where it is deemed to add value and clarity to the findings;
- Prepare a preliminary report, outlining recommendations where appropriate.

4. OBSERVATIONS

The review was conducted on 22nd February when the site was undergoing preparation for training the following week. On site were the Training Ground Supervisor, Brian Smith and the Ray Tunks, the OH&S Advisor for Gippsland.

West Sales training ground is on the former NSCA site and adjoins the airport, East Gippsland TAFE, Baw Baw Shire facilities and other businesses. Nearby is the Fulham prison.

The site has no accommodation facilities and has simple training rooms for trainees or other people visiting the site.

Grounds

There are a number of hectares of land around the site. There are also a number of mounds that are remnants from past excavation and building from the late 1990's. The CFA plan to build a driver training ground on the available land.

Buildings

There is the main office and administration building, two portable classrooms and a shed that houses fire fighting equipment and can accommodate other plant. There are limited tools as most work is outsourced to external contractors.

PAD – Fire Fighting Training Ground

The PAD area has recently been re-surfaced due to deterioration of the concrete surface creating unstable and unsafe surfaces for the trainees. There are three areas for fire fighting simulations. One area is primarily for LPG fires around a limited number of props. A second area is for liquid fuel fires that are contained in shallow metal containers and the third area is for gas fire fighting where different props can be placed over a fire source that is inset into the concrete.

There is a ring main of fire hydrants which are supplied by a pump on the north side of the PAD. A safety line runs off a separate pump. Both pumps take water from a dam adjacent to the PAD.

Some fire fighting exercises are conducted with SCBA and others are not. In general, the smaller brigades and its volunteers do not always use SCBA as it may not always be available. Exposure to smoke and fumes is well controlled on this site and fire attack is only conducted from upwind of the fire.

PAD exercises have similar safety controls in that there is the PAD supervisor in control of fuel delivery either from the control booth or using a remote controlled with a dead man switch, and safety observers and the instructors.

PAD buildings

West Sale have fabricated a range of buildings from shipping containers as well as a concrete rescue building that is starting to show some signs of deterioration. The safety of personnel training in these buildings is similar to what they would be exposed to in a real life situation other than the controlled exposure to extreme heat and flames.

Incident Data

There are few incidents for this site; primarily musculo-skeletal injuries, slips trips and falls and some heat related incidents. The site does not have access to the on-line system which inhibits the site's ability to review similar incidents at other training grounds for shared learning. Incidents are logged on a paper and sent to Melbourne for processing.

Roadways

The access to the site is simple and all vehicles other than training vehicles park in front of the administration block.

Water Quality

The water quality at the site is a cause for some concern as the dam into which bore water is pumped for fire fighting is also used to capture run off from the PAD areas. A triple interceptor captures contaminated water but would only prevent solids from passing into the dam, not the low density liquids such as hydrocarbons etc. **Refer photograph 1** It would not be able to cope with large rain events as the PAD surface area is large and the triple interceptor has limited retention capacity. The water is tested regularly and if the testing fails, there is no clear corrective action process in place. On the day of the assessment, the dam had been pumped empty of water and the residue was being excavated due to high bacteria counts. **Refer photograph 2**

Other than pumping out all the water from the dam, there is no clear corrective action to address poor water quality. A standard chemical dosing process with validation testing may be more appropriate to prevent having to drain the dam each time a high result is obtained

Chemical Management

The site holds mainly fuels located either in a secure area or in two large LPG bulk containers. **Refer photograph 3.** A diesel tank is located next to the pump house and is clearly labelled. The site also has acquired out of date aviation gas to supplement its fuel needs. The aviation gas should be added to the dangerous goods register. **Refer photograph 4**

There is a dual petrol and diesel tank in a bunded area. The tank appears to be too close to the edge of the bund, based on AS 1940 recommendations. **Refer photograph 5** The edge of the tank must be greater than 1m from the interior edge of the bund and the angle from the crest of the bund to the edge of the tank should be greater than 27.5° from the vertical. i.e. 2 high : 1 wide. Note Figure 5.2 in AS 1940.

The LPG system is maintained by G&S but not in a systematic way. Pre-start checks are conducted prior to an exercise. There is no documented process, nor records of this occurring.

There is LNG supply into the Esso Sea Survival Training Centre and the CFA should consider tapping into this fuel source which would easily replace the LPG. This would reduce the actual fuel held on site, eliminate the need to transport LPG onto the site, eliminate the requirement to develop a manifest and eliminate the need to notify WorkSafe.

Site Management

The overall site management is conducted by Brian Smith. He is the sole person on site when training is not being conducted. As Brian works alone, the CFA should review its working alone policy and ensure that Brian is not undertaking activities which present an unreasonable risk.

The Field Training Ground Management Manual has not been reviewed since 2005 and is becoming out of date with both legislation and practices on the site. The SOP's for PAD exercises do not represent what actually occurs on the site.

Emergency Management

The site has developed with an external provider an emergency management plan. The plan is at odds with the emergency management plan in the Field Training Ground Management Manual. The Emergency Management Plan is largely irrelevant to the site and should be discarded. The emergency management plan and the incident response sections the Management manual should be updated as well. They should be site specific to account for differences in risk profiles such as the nearby prison, an airfield etc.

Other

A confined space training area is available and access is done under a confined space permit system. It is not regularly used and a three dimensional map is available for personnel whether CFA or other organisations can use to develop training plans.

There is a parachute jump tower that has limited security in access to the platform. **Refer photograph 6** A locked gate should be fitted to the cage.

An emergency eye wash/shower station did not run as designed and the pipe work is exposed to radiant heat which may heat the water in the pipes to such a level that it may scald a person who uses it. **Refer photograph 7**

The first aid room acts as a store for PAD PPE. The room can become very smoky from the contaminated clothing. There is also no provision for an ill person to lay down. The process is to send them to the hospital in Sale or home depending upon the degree of illness. Given the activities on the site, the first aid room appears to be inadequate for the likely emergency it would have to support.

Access to CFA IT systems is problematic. There is no access to the online chemical management system, incident management system or to corporate procedures.

5. INTERVIEWS WITH STAFF AND RELEVANT PERSONNEL

Name	Position
Ray Tunks	Gippsland OHS Advisor
Brian Smith	Training Ground Supervisor

6. CONCLUSIONS

West Sale has some opportunities for improving health and safety of people attending the site and to address the compliance gaps that have been identified.

The processes for managing safety on the site appears to be good but not robust as they appear to rely upon local knowledge and experience rather than formal systems

The reliance on one person to manage the site for all the complex tasks that have to be overseen is in the view of the auditor a major deficiency at this site. Additional support in the area of PAD briefs, procedures etc could all produce lesser risks to the people attending the site.

IT access is an issue that would also benefit management of the site as this would allow the Training Ground Supervisor access to a range of documents and procedures that he may not be aware of

7. RECOMMENDATIONS

1. Review working alone policy and determine what activities can be done on the site by one person.
2. Notify WorkSafe of manifest quantities of flammable gas
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8. APPENDICES

APPENDIX 1 – PHOTOGRAPHS



Photograph 1 Triple Interceptor



Photograph 2 Drained Dam



Photograph 3 Manifest levels of LPG



Photograph 4 Aviation Gas



Photograph 5 Possible inadequate bund design



Photograph 6 Unsecure parachute platform



Photograph 7 Faulty emergency eye wash