TETRA TECH COFFEY

Mirvac Real Estate Pty Ltd

Hazardous Chemicals Assessment

39 Herbert Street, St Leonards, NSW 2065

17 April 2023

Project Ref: 754-SYDEN228268

HAZARDOUS CHEMICALS ASSESSMENT

Prepared for
Mirvac Real Estate Pty Ltd

Prepared by
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EXECUTIVE SUMMARY

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by Mirvac Real Estate Pty Ltd (the client) to conduct a Hazardous Chemicals Assessment (assessment) of the office building, located at 39 Herbert Street, St Leonards, NSW (the site). Phoebe Quessy conducted the assessment on 20th February 2023.

Assessment Findings

Summary of Hazardous Chemicals Identified on Site

The following table presents a summary of the approximate total volumes of hazardous chemicals stored on site by hazard class. It also details whether placarding and/or manifests are required for any hazardous chemicals stored in bulk at the site. Refer to **Appendix B** for full hazardous chemicals register.

Hazard Class	Approximate Quantity Stored on Site	Placarding Required	Manifest Required
Class 2.1 – Flammable gases / Aerosols	-	-	-
Class 2.2 – Non-flammable, non-toxic gases	-		-
Class 3 – Flammable liquids	-	-	-
Class 3 (Category 4) – Combustible liquids	8,500L	-	
Class 5.1 – Oxidising substances	30kg	-	-
Class 5.2 – Organic peroxides	-	-	-
Class 6.1 – Toxic substances	-	-	-
Class 8 – Corrosive substances	110L	-	-
Class 9 – Miscellaneous	-	-	-
Unknown and/or Unclassified	-	-	-

Observations

The following observations were made at the time of the assessment (refer to **Appendix A** for a photographic supplement):

- Quantities of hazardous chemicals stored on site did not exceed the threshold level for placarding or manifest.
- All of the inspected hazardous chemicals observed on site appeared to be stored in sealed containers and provided with adequate secondary containment.

- Incompatible hazardous chemicals appeared to be appropriately segregated in the majority of storage areas at the time of the assessment, however Hydro 375 (a Class 5.1 oxidiser) was stored within the same secondary containment as Class 8 chemicals in the Tower B Cooling Tower Area.
- The majority of inspected hazardous chemicals appeared to be appropriately labelled at the time of the assessment, however secondary containment for the Hydro 375 in the Tower B Cooling Tower Area was labelled as Hydro 360.
- Hazardous chemical storage areas appeared to be appropriately ventilated.
- Spill kits were observed in the Tower A carpark adjacent to the generators, however one of the spill kits had waste material stored in it at the time of the assessment.
- Emergency eye wash stations were not observed on site at the time of the inspection.
- Appropriate fire safety measures appeared to be available in hazardous chemical storage areas e.g. Fire Hose reel in Tower A Cooling Tower Area last tested in Jan 2023.
- Hazardous chemical storage areas were secured from unauthorised access (e.g. within locked rooms).
- Safety Data Sheets (SDSs) were available for the majority of hazardous chemicals stored in the Tower A Cooling Tower Area, however SDSs were not available in a readily accessible area in Tower B.
- All of the SDSs reviewed on site were current (within 5 years of issue date).

Recommendations

The following recommended actions (and the associated indicative recommended timeframes) are provided based on the findings and observations presented above:

High Priority (action within 1 month)

No high priority actions are required.

Medium Priority (action within 3 months)

No medium priority actions are required.

Low Priority (action within 6 months)

- Ensure that all hazardous chemicals stored on site are stored within appropriate secondary containment.
- Remove the Hydrochem, Hydro 375 (a Class 5.1 chemical) from the same secondary containment as Class 8 chemicals, and store appropriately.
- Remove Hydrochem Hydro 375 from the secondary containment labelled Hydro 360.
- Provide an appropriate spill kit in close proximity to the hazardous chemicals stored in the cooling tower areas in Towers A and B. Remove the waste material from the spill kit in the carpark of Tower A.
- Install an emergency eye wash station in close proximity to the Class 8 corrosive substances stored in the Tower A and Tower B Cooling Tower Areas.
- Ensure a copy of the hazardous chemicals register for the site is made available and is readily accessible to workers in each relevant hazardous chemical storage area at the site.
- Ensure that printed SDS copies are available and readily accessible for all hazardous chemicals in each relevant storage area, as well as within a central storage hub.
- Require as a condition of service contract, that all contractors engaged at the site provide a register of the chemicals they intend to use/store on site as well as a current SDS.

- Ensure all staff and contractors working within chemical storage areas at the site are provided with appropriate information, instruction, and training to ensure they are able to work safely in these areas. It is recommended that this be managed within the site induction.
- Implement a periodic hazardous chemicals assessment at the site to ensure the requirements are being maintained and the register remains current. It is recommended that such a review is performed at least once every five years, or when significant changes are made to the hazardous chemicals used/stored on site.
- A copy of this report and register should be made available to any staff and contractors working within the relevant areas at the site.

1. INTRODUCTION

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by Mirvac Real Estate Pty Ltd (the client) to conduct a Hazardous Chemicals Assessment (assessment) of the office building, located at 39 Herbert Street St Leonards NSW (the site). Phoebe Quessy conducted the assessment on 20th February 2023.

1.1 Site Description

The site consisted of a 20 unit business park with two office towers (approximately 37,000m^2). The site was occupied at the time of the assessment. Key chemical storage areas included the Cooling Tower areas in Tower A and Tower B, and the Diesel Fuel Storage in the Carpark of Tower A.

1.2 Assessment Objectives

The objectives of this assessment were as follows:

- Conduct a visual inspection of all common areas (tenanted areas were not included) at the site.
- Liaise with relevant site personnel and collect data on the location, type, quantities, use and function of the hazardous chemicals stores on site.
- Assess the risks associated with the storage of hazardous chemicals on site.
- Evaluate the effectiveness of risk control measures implemented at the site to manage hazardous chemical storage.
- Provide recommended actions to rectify any identified non-conformances and minimise the identified risks.
- Prepare an up-to-date hazardous chemicals register for the site.

2. METHODOLOGY

The assessment consisted of an on-site visual inspection to identify and assess, so far as reasonably practicable, the presence, location and condition of hazardous chemicals at, on, and associated with the site. Areas were visually inspected for containers and storage vessels that may contain any potentially hazardous chemicals. Visual assessment of the type of all hazardous chemicals identified was conducted with product details recorded including estimated volumes, and whether the contents were labelled or indicated through signage. All chemical storage areas were accessed, where reasonably practicable, and where no access was available, locations were recorded within Section 2.1 of this report. The assessment was carried out methodically, systematically and diligently to make sure all relevant areas of the premises were inspected.

Hazardous properties of each hazardous chemical stored on site were collated from the Safety Data Sheets (SDS). Where the SDS was unavailable, generic hazardous properties for the class of hazardous chemicals were used. For each hazardous property identified, an assessment was made to determine whether this hazardous property resulted in a risk to occupants of the chemical storage area or any adjacent areas.

Data collected during the assessment was compared to the legislative documents and standards listed in Section 7.

2.1 Inaccessible Areas

The following areas were not accessible at the time of the assessment. The presence/absence of hazardous chemicals in these areas cannot be confirmed until further investigation can confirm or refute the presence.

- Occupied areas/tenancies.
- Areas not specified as chemical storage areas.

Note: Mirvac advised Tetra Tech that only the cooling tower area of the towers A and B were considered the base building, so no other areas and chemicals are included in this report for Towers A and B.

3. DUTIES OF THE PCBU

A Person Conducting a Business or Undertaking (PCBU) of a premises where hazardous chemicals are stored and handled has a duty to identify the hazards associated with the hazardous chemicals and control the risks arising from their storage and handling. The following duties must also be carried out by the site PCBU:

- Provide appropriate consultation, training, induction and supervision to all workers who are required to work within hazardous chemical storage areas.
- Prepare a register of all hazardous chemicals stored or used at the site.
- Obtain current SDSs for all hazardous chemicals stored or used on site.
- Prepare a manifest of any hazardous chemicals stored in bulk quantities above the relevant threshold limits.
- Display appropriate placards for hazardous chemicals stored in bulk quantities above the relevant threshold limits.
- Ensure hazardous chemical storage areas are appropriately ventilated.
- Ensure hazardous chemical containers and pipework are protected from damage.
- Ensure all hazardous chemical containers and pipework are appropriately labelled.
- Ensure that incompatible hazardous chemicals are appropriately segregated.
- Ensure appropriate spill containment provisions are provided for all hazardous chemicals.
- Ensure suitable fire safety measures are available and appropriately maintained.
- Provide health monitoring to workers who may be exposed to hazardous chemicals in levels exceeding the relevant exposure standards.

Note: The above duties are specified in Part 7.1 of the *Work Health and Safety Regulation 2017 (NSW)*. The PCBU of this site is considered to be the Property Manager.

4. BACKGROUND INFORMATION

4.1 Definitions

Definitions of key terms used in this assessment report and within the hazardous chemicals register are provided below:

- Hazard Class – The nature of a physical, health or environmental hazard under the Globally Harmonised System of Classification and Labelling of Chemicals (GHS). Refer to Section 4.2 for further details.
- Hazard Category – A division of criteria within a hazard class in the GHS. Refer to Section 4.3 for further details.
- Hazardous Chemical – A substance, mixture or article that satisfies the criteria for a hazard class in the GHS, as defined in the *Work Health and Safety Regulation 2017 (NSW)*.
- Manifest – A summary of the key information about specific dangerous goods stored at a site, intended to be provided to emergency services in the event of an emergency. Only required for hazardous chemicals stored in large quantities over the threshold limits detailed in the *Work Health and Safety Regulation 2017 (NSW)*.

- Placard – Signage intended to provide a clear visual warning to emergency services that hazardous chemicals are stored at the site. They include outer warning placards, to be installed at the vehicle entrances to the site, and location placards, to be installed on or adjacent to each container or storage area. Only required for hazardous chemicals stored in large quantities over the threshold limits detailed in the *Work Health and Safety Regulation 2017 (NSW)*.

4.2 Hazard Classes

Classes of relevant dangerous goods are listed below:

- Class 2 – Gases.
    - Division 2.1 – Flammable gases.
    - Division 2.2 – Non-flammable, non-toxic gases.
    - Division 2.3 – Toxic gases.
- Class 3 – Flammable liquids.
- Class 5 – Oxidising substances and organic peroxides.
    - Division 5.1 – Oxidizing substances.
    - Division 5.2 – Organic peroxides.
- Class 6 – Acute Toxicity.
    - Division 6.1 – Acute Toxicity.
- Class 8 – Corrosive substances.

Note: It is possible for substances to display more than one characteristic, therefore these substances may fall under more than one hazard class. In such circumstances the substance will have a primary hazard class and a subsidiary class. Subsidiary classes are displayed in brackets in the Hazard Class column of the Hazardous Chemicals Register.

4.3 Hazard Category

To further assist with the identification of hazardous chemicals and their particular hazards, hazard classes are assigned with a hazard category. This represents the level of danger to persons exposed to the hazardous chemical. Hazard categories include the following:

- 1 – Great danger.
- 2 – Medium danger.
- 3 – Minor danger.

5. ASSESSMENT FINDINGS

The assessment findings are detailed in the following sections. Refer to **Appendix A** for a photographic supplement and **Appendix B** for the full Hazardous Chemicals Register.

5.1 Summary of Hazardous Chemicals Identified on Site

The following table presents a summary of the approximate total volumes of hazardous chemicals stored on site by hazard class. It also details whether placarding and/or manifests are required for any hazardous chemicals stored in bulk at the site. Refer to **Appendix B** for full hazardous chemicals register.

Hazard Class	Approximate Quantity Stored on Site	Placarding Required	Manifest Required
Class 2.1 – Flammable gases / Aerosols	-	-	-
Class 2.2 – Non-flammable, non-toxic gases	-		-
Class 3 – Flammable liquids	-	-	-
Class 3 (Category 4) – Combustible liquids	8500L	-	
Class 5.1 – Oxidising substances	30kg	-	-
Class 5.2 – Organic peroxides	-	-	-
Class 6.1 – Toxic substances	-	-	-
Class 8 – Corrosive substances	110L	-	-
Class 9 – Miscellaneous	-	-	-
Unknown and/or Unclassified	-	-	-

5.2 Observations

The following observations were made at the time of the assessment (refer to **Appendix A** for a photographic supplement):

- Quantities of hazardous chemicals stored on site did not exceeded the threshold level for placarding or manifest.
- All the inspected hazardous chemicals observed on site appeared to be stored in sealed containers and provided with adequate secondary containment.
- Incompatible hazardous chemicals appeared to be appropriately segregated in the majority of storage areas at the time of the assessment, however Hydrochem Hydro 375 was stored within in the same secondary containment as Class 8 chemicals in the Tower B cooling tower area.
- The majority of inspected hazardous chemicals appeared to be appropriately labelled at the time of the assessment, however Hydrochem Hydro 375 was stored in the secondary containment labelled Hydro 360 in the Tower B cooling tower area.
- Hazardous chemical storage areas appeared to be appropriately ventilated.
- Spill kits were observed in the tower A carpark adjacent the generators, however one of the spill kits has rubbish in it.
- Emergency eye wash stations were not observed on site at the time of the inspection.
- Fire safety measures appeared to be available in the Tower A Chiller Area e.g. Fire Hose reel last tested in Jan 2023.

- Hazardous chemical storage areas were secured from unauthorised access (e.g. within locked rooms).
- Safety Data Sheets (SDSs) were available for the majority of hazardous chemicals stored in the Chiller Area, however SDSs were available in a readily accessible area in Tower B.
- All of the SDSs reviewed on site were current (within 5 years of issue date).

6. RECOMMENDED ACTIONS

The following recommended actions (and the associated indicative recommended timeframes) are provided based on the findings and observations presented above:

6.1 High Priority (action within 1 month)

No high priority actions are required.

6.2 Medium Priority (action within 3 months)

No medium priority actions are required.

6.3 Low Priority (action within 6 months)

- Ensure that all the hazardous chemicals stored on site are stored within secondary containment.
- Remove the Hydrochem, Hydro 375 (a Class 5.1 chemical) from the same secondary containment as Class 8 chemicals, and store appropriately.
- Remove Hydrochem Hydro 375 from the secondary containment labelled Hydro 360.
- Provide an appropriate spill kit in close proximity to the hazardous chemicals stored in the cooling tower areas in towers A and B. Remove the rubbish from the spill kit in the carpark of Tower A.
- Ensure that eye wash stations are available in Class 8 hazardous chemical storage areas.
- Ensure a copy of the hazardous chemicals register for the site is made available and is readily accessible to workers in each relevant hazardous chemical storage area at the site.
- Ensure that printed SDS copies are available and readily accessible for all hazardous chemicals in each relevant storage area, as well as within a central storage hub.
- Require as a condition of service contract, that all contractors engaged at the site provide a register of the chemicals they intend to use/store on site as well as a current SDS.
- Ensure all staff and contractors working within chemical storage areas at the site are provided with appropriate information, instruction, and training to ensure they are able to work safely in these areas. It is recommended that this be managed within the site induction.
- Implement a periodic hazardous chemicals assessment at the site to ensure the requirements are being maintained and the register remains current. It is recommended that such a review is performed at least once every five years, or when significant changes are made to the hazardous chemicals used/stored on site.
- A copy of this report and register should be made available to any staff and contractors working within the relevant areas at the site.

7. REFERENCES

- Work Health and Safety Act 2011 (NSW).
- Work Health and Safety Regulation 2017 (NSW).

- Code of Practice: Managing Risks of Hazardous Chemicals in the Workplace, 2019 (NSW).
- Australian Standard 1940:2017 'The Storage and Handling of Flammable and Combustible Liquids'.
- Australian Standard 1596:2014 'The Storage and Handling of LP Gas'.
- Australian Standard 3833:2007 'The Storage and Handling of Mixed Classes of Dangerous Goods in Packages and Intermediate Bulk Containers'.

8. LIMITATIONS

This report and the associated services performed by Tetra Tech are in accordance with the scope of services set out in the contract between Tetra Tech and the Client. The scope of services was defined by the requests of the Client, by the time and budgetary constraints imposed by the Client, and by the availability of access to the site.

Tetra Tech derived the data in this report primarily from visual inspections, examination of available records, and interviews with individuals with relevant information about the site. In preparing this report, Tetra Tech has relied upon, and presumed accurate, certain information (or absence thereof) provided by government authorities, the Client and others identified herein. Except as otherwise stated in the report, Tetra Tech has not attempted to verify the accuracy or completeness of any such information.

No warranty, undertaking, or guarantee, whether expressed or implied, is made with respect to the data reported or to the findings, observations, and recommendations expressed in this report. Furthermore, such data, findings, observations, and recommendations are based solely upon existence at the time of the assessment. The passage of time, manifestation of latent conditions or impacts of future events (e.g. changes in legislation, scientific knowledge, land uses, etc.) may require further investigation at the site with subsequent data analysis and re-evaluation of the findings, observations, and recommendations expressed in this report.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the provisions of the agreement between Tetra Tech and the Client. Tetra Tech accepts no liability or responsibility whatsoever and expressly disclaims any responsibility for or in respect of any use of or reliance upon this report by any third party or parties. It is the responsibility of the Client to accept if the Client so chooses any recommendations contained within and implement them in an appropriate, suitable and timely manner.

APPENDIX A: PHOTOGRAPHS

Photo 01. Water treatment chemicals in the Cooling Tower Area Tower B.

Photo 02. Water treatment chemicals in the Cooling Tower Area, Tower A.

Photo 03. Spill Kit located adjacent the generators in the carpark of Tower A.

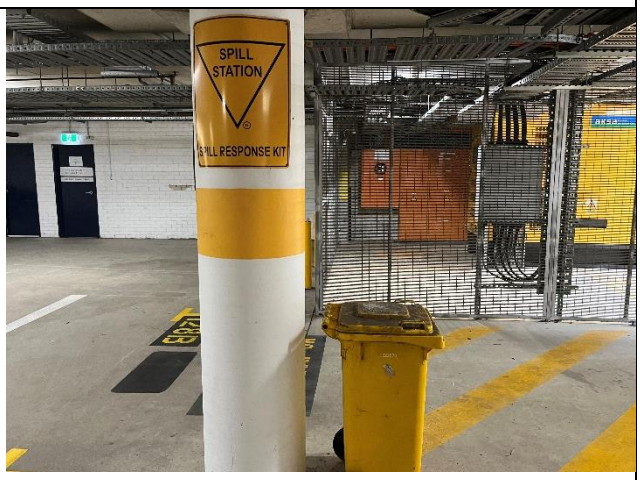

Photo 04. Spill Kit located adjacent the generators in the carpark of Tower A, with waste material inside.

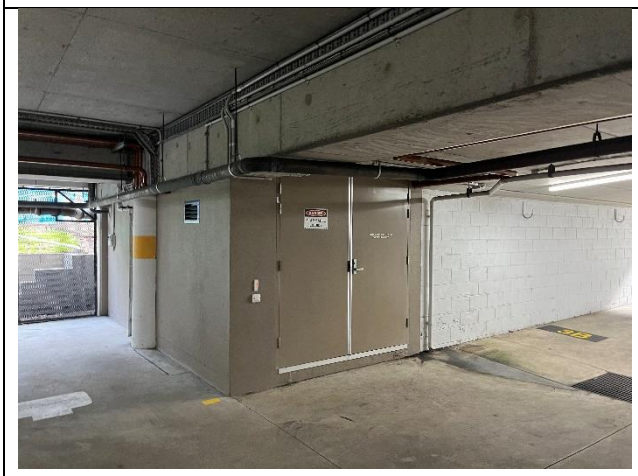

Photo 05. Diesel fuel storage, no access into the room at the time of the inspection.

APPENDIX B: HAZARDOUS CHEMICALS REGISTER

HAZARDOUS CHEMICALS REGISTER

Instructions

Complete, keep and maintain this *Hazardous Chemicals Register* for all existing and new chemicals used by staff. This register should be readily accessible by all staff and contractors who use or who may be affected or exposed to any of the hazardous chemicals listed herein.

All hazardous chemicals must have a current safety data sheet (SDS) and an accompanying risk assessment that is no more than five years old. The SDS must state whether the product is hazardous and, in case of dangerous goods, provide the proper shipping name, class label, subsidiary risk, and packing group details. Copies of the SDSs must be attached to this register.

Site		39 Herbert Street, St Leonards		
Date of Register		17th April 2023. Inspected on 20th February 2023		
Assessor	**Name**	Phoebe Quessy	**Position Title**	WHS Consultant
	Company	Tetra Tech Coffey	**Client Contact Name**	Voltaire Cuadra

Product Name	Purpose	Location	Quantity		Hazardous Substance	Dangerous Goods		SDS Expiry	Actions/Comments
			Number of Containers	Max Quantity		Class	Category		
Tower B									
Hydrochem Hydro 375	Water Treatment	Roof, Cooling Tower Area	15L x 2	30L	Yes	8	III	**Not Available**	Provide current SDS in a readily available location
Hydrochem Hydro 260	Water Treatment	Roof, Cooling Tower Area	15L x 1	15L	Yes	8	III	**Not Available**	Provide current SDS in a readily available location
Hydrochem Hydro 256	Water Treatment	Roof, Cooling Tower Area	15L x 2	30L	Yes	8	III	**Not Available**	Provide current SDS in a readily available location

Product Name	Purpose	Location	Quantity		Hazardous Substance	Dangerous Goods		SDS Expiry	Actions/Comments
			Number of Containers	Max Quantity		Class	Category		
Tower A									
Hydrochem Hydro 360	Water Treatment	Roof, Cooling Tower Area	~20L x 1	20L	Yes	8	III	**Not Available**	Provide current SDS in a readily available location
Hydrochem Hydro 375	Water Treatment	Roof, Cooling Tower Area	15kg x 1	15kg	Yes	5.1 (8)	III	03/06/2026	-
Hydrochem Hydro 256	Water Treatment	Roof, Cooling Tower Area	15L x 2	30L	Yes	8	III	19/02/2025	-
Hydrochem Hydro 260	Water Treatment	Roof, Cooling Tower Area	15L x 1	15L	Yes	8	III	28/04/2026	-
Diesel	Fuel	Carpark, Adjacent Parking Bay 3B	8,500L x 1	8,500L	Yes	3	4	**Not Available**	Provide current SDS in a readily available location
Diesel (generators)	Fuel	Carpark, Adjacent Parking Bay 130B	4 units	4 units	Yes	3	4	**Not Available**	Provide current SDS in a readily available location